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Úvodní slovo | Introductory word

Vážení kolegové,

dostává se vám do rukou recenzovaný sborník z Mezinárodní Masarykovy konference pro doktorandy a mladé vědecké pracovníky 2025, jejíž XVI. ročník se konal ve dnech 22. - 23. prosince 2025. Konference se účastnilo více než 70 účastníků, mezi nimiž byli jak PhD. studenti, tak i ostatní zástupci akademických obcí domácích i zahraničních univerzit. Záměrem Masarykovy konference bylo poskytnout prostor pro otevřenou odbornou diskusi napříč všemi programovými sekcemi, jejichž skladba měla umožnit účast co nejširšímu okruhu studentů doktorských studijních programů. Naše několikaletá snaha o dosažení tohoto záměru se naplnila v tomto ročníku, kdy lze hrdě Mezinárodní Masarykovu konferenci zařadit na vrchol největších doktorandských konferencí ve střední a východní Evropě! Předkládaný sborník obsahuje několik set vybraných vědeckých textů rozčleněných dle odborných sekcí, které kopírují obsahovou strukturu mezinárodní konference. Naším záměrem je Masarykovu konferenci přiblížit špičce mezi celoevropskými doktorandskými konferencemi a neomezovat se jen na regiony střední a východní Evropy. Budeme rádi, pokud nám zachováte přízeň i v nadcházejících ročnících.

S přáním osobních, vědeckých i profesních úspěchů

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Dear colleagues,

You are holding the reviewed proceedings from the seventh annual International Masaryk Conference for PhD. Students and Young Researchers 2025, which was held on December 22 - 23, 2025. The conference was attended by more than 70 people, including PhD. students as well as other representatives of the academic community from universities in both the Czech Republic and abroad. The aim of the Masaryk Conference was to provide a space for open professional discussion across all programme sections, designed to enable as broad a range of PhD. students as possible to participate. Our several years of effort towards achieving this aim culminated this year, when the International Masaryk Conference can proudly claim to be the leader amongst the biggest PhD. conferences in Central and Eastern Europe! The proceedings you are holding contain several hundred selected scientific texts divided up in specialised sections which replicate the way the content of the international conference is structured. Our aim is to make the Masaryk Conference one of the top Europe-wide PhD. conferences and not to restrict it only to the regions of Central and Eastern Europe. We will be delighted if you continue to support us in the coming years.

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Tomáš Garrigue Masaryk (1850-1937)

scientist, philosopher, educator, politician and journalist, the founder of the modern Czechoslovak state, President of Czechoslovakia

"Tomáš Garrigue Masaryk is a leading personality in European history. He wrote himself into history, in fact, as a man who fought for the truth, a humanist, a philosopher and primarly a democratic politican and the first president of the Czechoslovak Republic."

Museum T.G. Masaryk Lany

Teaching and scientific career

He was born in Hodonín. His parents sent him to a junior secondary school after a word in his favour from the local dean, who praised the boy's exceptional aptitude and talent. It was therefore decided that he would go into a teaching career after finishing school in Hustopeče. He went on to study at the German grammar school in Brno, after being awarded a scholarship due to his outstanding success as a student. However, a conflict arose with the grammar school management, due to Masaryk's refusal to attend compulsory school confessions, and so he was expelled. From November 1869 he studied at the Academic Grammar School. He devoted all his time to studying hard, particularly languages and philosophy. In 1872 he passed his school leaving examination and enrolled at the Philosophical Faculty in Vienna to study Philology. In 1876 he graduated from university and set off travelling (Italy, Germany). In Germany he spent one year at the university in Leipzig. His stay there not only enabled Masaryk to extend his education, but was especially where he first saw his future lifelong partner Charlotte Garrigue, daughter of a rich American businessman from New York, in June 1877. In August, before he left for home, they got engaged. After returning to Vienna, Masaryk hurried to secure them an independent existence. The most viable way of doing this seemed to be obtaining an associate professorship. In September 1878 he submitted his advanced doctoral thesis, on the topic of suicide. It met with considerable response when it was issued in book form (1881). Their first daughter, Alice, was born in May 1879, followed a year later by a son, Herbert, and another son, Jan, in 1886. It was mostly the desire to provide for his family financially that led Masaryk to take a post at Prague University. He arrived in Prague with his family in 1882, the year the university was split into two parts, Czech and German. His opinions and his relationship towards his students made him stand out and appear different; he amazed the conservative institute with his lectures on various topics that had previously been taboo (social problems, prostitution, etc.). The same was true of his wife, a fully emancipated American woman. Despite these differences and some clashes of opinion, however, he was accepted and respected by Czech society right from the very start. In 1883 began to edit "Athenaeum", an academic journal in which he published his own interpretation of Gebauer's essay proposing a new and precise form of authentication, entitled "Rukopisy zelenohorského a královédvorského" (*Zelenorske and Kralovedvorske Manuscripts*). This led to a conflict that gradually grew to become a nationwide affair, with patriotic sentiment and national politics facing off against scientific truth. This event turned Masaryk's interest to political life. In 1897 he was appointed Professor at Charles University. By the time the First World War broke out, Masaryk already had a respectable scientific, educational, cultural and political career. Before the end of 1914 he left for Italy and, heeding his friends' warnings, never returned to his homeland. He worked in Switzerland (1915) and later in the year moved to France. For the whole of the war he bore on his shoulders the greatest burden and responsibility for the future of the entire Czech and Slovak nation during the talks in England (1916), Russia (1918) and then in America. On December 21st 1918 Masaryk returned triumphant to Prague and a day later gave his first address to the National Assembly at the Castle. He began with the famous quote from Comenius's Kšaft (Bequest), which reads "*the government of your affairs once more turns to you, oh Czech people*".

Quoted with the consent of The Office of the President of the Czech Republic

Mgr. Petr Fučík

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SEMIOTIC INTERPRETATION OF IDEOLOGICAL CODES IN THE PARATEXTS OF SID MEIER'S CIVILIZATION VII

Monika Cihlářová – Adam Kysler

Abstract

The study deals with the meanings that physical paratexts communicate to players. By physical paratexts, we mean tangible objects included in collector’s editions. These items should not be understood merely as supplementary or decorative objects, but as carriers of cultural, ideological, and narrative meanings. The aim of the study is to use semiotic analysis to determine what meanings physical paratexts convey to players. The research material consists of the collector’s edition of the game *Sid Meier’s Civilization VII*. We analyse seven paratexts. The study reveals their multi-layered cultural meanings, showing how they translate abstract game mechanics, historical narratives, and civilizational ideologies into tangible forms. Physical paratexts thus function as transmedia bridges, mediating cultural, historical, and symbolic meanings between the digital and material dimensions of the game universe.

Keywords: *digital games, monetization, versioning, collector’s edition, paratexts, merchandising*

1 INTRODUCTION

The contemporary digital game market is no longer defined solely by the catalog of titles currently available for purchase. Rather, it also encompasses information about forthcoming releases and projects in active development. In addition, it includes games originally created for obsolete hardware that, due to their longevity or cult status, have been updated, remastered, or otherwise adapted for compatibility with contemporary platforms. As a result, iconic titles with long production and reception histories are re-entering the market in renewed forms. Thus, the regulatory cycle in which new digital game titles replace older games is disappearing, and the culmination of new and old titles on the market is supporting the expansion of the total number of products. Players and potential consumers are exposed to a vast amount of information, known as “information flood” (Consalvo, 2007, p. 8), coming from various sources. Understandably, there is an intuitive selection of information based on preferred genre, brand, rating, price, etc.

Price is one of the aspects that significantly influences consumer purchasing behavior. According to the latest Circana survey focused on the US market, most respondents-consumers, up to 45%, buy only one game per year, while approximately 20% buy new games every six months or every quarter. The rest of those surveyed buy a game once a month or more often (Nightingale, 2025). This survey demonstrates the majority purchasing behavior, which must be selective given the high supply of game titles. According to further statistics from 2025, the largest market in that year was the US (Clement, 2025). Pricing policies and monetization in the gaming industry vary and depend on the business model adopted by individual games (Pravdová, et al, 2025). Several authors distinguish between different models, e.g., premium, free-to-play, pay-to-play, and other hybrid options (see Pravdová, et al, 2023; Švecová, 2025; Stanev, 2020).

One of the long-established strategies for monetization within the digital games industry is qualitative differentiation, often referred to as versioning. As articulated by Cox (2017), this approach involves offering multiple variants of an identical product, thereby enabling consumers to self-select based on their individual willingness to pay. Beyond the basic

edition, which provides access to the core game experience, publishers commonly introduce special, limited, or collector’s editions (Mago, 2023). These editions are priced progressively higher in relation to the scope and nature of the additional content they contain, while the premium versions typically subsume all features and materials included in the less expensive variants (Pravdová et al., 2023). These editions may be distinguished not only by variations in their digital or software-based content, but also through the inclusion of supplementary physical items and additional paratextual materials.
The aim of the study is to use semiotic analysis to determine what meanings physical paratexts convey to players. The research material consists of paratexts in the collector's edition of the game *Sid Meier’s Civilization VII*.

2 PARATEXTS AS MERCHANDISING OBJECTS

Various editions of games often consist of materials from production or other items adapted to game themes that are established in popular culture. All material and immaterial products related to the main work in the form of a digital game can be collectively referred to as paratexts. The term “paratext” was first defined by Genette (1991) in literary studies as a set of elements that accompany a text and contribute to its interpretation by readers and the public. This concept includes not only material objects, but also intangible information and sociocultural aspects that contextualize the work.
Merchandising, for example, is a commercially successful type of paratext. As Affusso (2018) points out using the example of films, merchandising is often part of promotional campaigns for (film) franchises, with products entering the retail network approximately six weeks before the film's premiere and often serving as a tool to guide consumers in how to prepare for the work. Consalvo (2007) adds that in games, paratexts are key to shaping the gaming experience. This is especially true for replicas of game items, which transfer digital materiality into physical form, allowing players to create a kind of pre-awareness of the game (Seiwald, 2023). This extension of media texts into physical space through tangible artifacts allows fans to interact with the fictional world outside its original framework. At the same time, physical elements within transmedia storytelling create conditions for active audience participation, allowing them to appropriate the narrative and further develop it through their own interpretive and creative practices (Godwin, 2018). Affuso and Santo (2018) also states that where entertainment industries use merchandise to engage fans in guided promotional and lifestyle branding practices, fan communities have repeatedly used film merchandise as resources for knowledge-cultivation, establishing bonafides, authenticity, social, symbolic and cultural capital, and as means of challenging the scriptural economy (Affuso & Santo, 2018).
The above theoretical approaches to paratexts, merchandising, and the material dimension of digital games provide a suitable framework for analyzing specific game editions as complex cultural objects. Collector's editions of games represent a specific type of paratext in which the marketing strategy of publishers, transmedia storytelling, and the material representation of the game world converge. These are not just complementary products, but meaningful artifacts that pre-structure player expectations, indicate the ideological foundations of the game, and convey its thematic and aesthetic values even before entering the digital space. It is through the physical elements of collector's editions that digital games move from the realm of intangible software into the player's everyday space, where they take the form of material objects with commemorative, symbolic, or affective significance. Such paratexts also allow us to examine how the gaming industry materializes abstract game mechanics, historical narratives, and ideas of progress, power, or civilizational continuity. The analysis of the collector's edition of *Sid Meier's Civilization VII* therefore offers a suitable opportunity to observe how the theoretical concepts of paratextuality, materiality, and transmedia expansion are applied in specific production and design practices.

The collector's edition of *Sid Meier's Civilization VII* was released in two versions: one containing a digital key for the Steam platform (PC version of the game) and one without the game itself (Civilization Support, 2025). It is precisely the partial absence of the digital game in the collector's edition that leads us to conclude that this collector's edition is more merchandising than a versionization. Butler (2024), on the other hand, cites the possibility of unified production of the collector's edition and greater flexibility for players in choosing their preferred platform and specific version of the game as one of the main advantages of the absence of a digital title. However, it should be emphasized that platform specificity has often been associated in the past with the need for color-coded visual differentiation of editions, blue for PlayStation, green for Xbox, red for Nintendo, and black for PC. Such differentiation has not always been aesthetically integrated into the visual identity of the game and the design of its exclusive packaging. One practical solution was therefore to use a paper or cardboard sleeve for the exclusive box, which made it possible to maintain a uniform basic design.
From the publisher's point of view, in addition to simplifying the production process, the absence of a digital game also has a significant impact on pre-production planning, when the publisher must plan the number of products for given platforms. Even the strategic series Sid Meier's Civilization (MicroProse; Firaxis Games), which has a tradition spanning more than thirty years and has long been published primarily for personal computers, reflects changes in consumer behavior among gamers in terms of their preference for gaming platforms. The target audience for this series, as well as other titles from Firaxis Games, has historically been primarily PC gamers. However, in an effort to reach a new audience, the company decided to release the game on the Nintendo Switch platform, a portable game console. This move not only expanded the player base, but also motivated some existing PC players to repurchase the title for the Nintendo device. As executive producer Dennis Shirk stated, the decisive factor was the ability to play the title anywhere and anytime (Dring, 2024). Based on this experience, the publishers decided that the seventh installment of the series would be released simultaneously on all major platforms and would offer the ability to transfer saved positions between devices, allowing players to continue playing seamlessly regardless of the device they were using (Dring, 2024). This made predicting sales for individual platforms even more challenging.

Figure 1: Overview of paratexts in the collector's edition of *Sid Meier's Civilization VII*
Source: Firaxis Games (2025)

3 SEMIOTICS ANALYSIS OF COLLECTOR’S EDITION PARATEXTS

Exclusive box

The denotative object is a cardboard box. The front features the cover image of Sid Meier’s Civilization VII. On the sides are the quotes: “Stay civilized” and “Build something you believe in”. On the top is a gold hexagon with the inscription “Civ VII”. The back features images of the contents of the collector’s edition.

On a connotative level, large packaging signals exclusivity, prestige, and value. Gold embellishments evoke wealth, opulence, power, durability, and, in some cultures, wisdom. The introductory image features the letter “C” decorated in several ways. The first depicts important monuments throughout human civilization. These structures are depicted as miniature silhouettes around the entire perimeter of the letter “C” in the logo, creating a panorama of historical civilizational achievements—from ancient times to the modern era. The second features gold hexagons embossed with abstract symbols of architecture, power, science, and culture. The hexagons refer to the mechanics of movement present in the games from the fifth installment of the series, which significantly changed the dynamics of the game and opened up new possibilities for movement (Pravdová & Cihlářová, 2024). The third type of decoration features relief ornamentation based on various historical periods.

On a mythological or ideological level, the packaging of the collector's edition communicates the idea of Civilization as a universal narrative of human progress, rationality, and the continuous building of history. The visual language of the packaging constructs the game not only as an entertaining product, but as a cultural artifact that claims the status of the “grand narrative” of civilization. The golden elements, monumental packaging format, and historicizing relief decoration together create a myth of permanence and timelessness. The game is implicitly presented as part of a long-term cultural heritage, not as an ephemeral consumer good. On a mythological or ideological level, the packaging of the collector's edition communicates the idea of Civilization as a universal narrative of human progress, rationality, and the continuous building of history. The visual language of the packaging constructs the game not only as an entertaining product, but as a cultural artifact that claims the status of the “grand narrative” of civilization. The golden elements, monumental packaging format, and historicizing relief decoration together create a myth of permanence and timelessness—the game is implicitly presented as part of a long-term cultural heritage, not as an ephemeral consumer good. The decorative letter “C”, in which architectural symbols from different eras intertwine, functions as a visual metaphor for a teleological understanding of history: civilization is depicted here as a linear process of constant growth, expansion, and improvement. This image supports the ideological framework of the game, in which technological development, urbanization, and political power are understood as universal and desirable goals. At the same time, the hexagon as a recurring symbol naturalizes the game mechanics, the abstract system of rules is presented as a “natural” structure of the world, blurring the line between simulation and historical reality. The quotes “Stay civilized” and “Build something you believe in” reinforce the normative dimension of this level: civility is framed as a moral value and building as an act of faith, vision, and personal responsibility. The cover thus conveys the idea of the player as an enlightened leader and creator of history who has the right – and at the same time the duty – to guide the development of civilization. At this level, the collector's edition becomes the bearer of the myth of control, rationality, and the human ability to shape the world through systems, strategy, and planning.

3.1 „Passage of Time“ Clock

The denotated object is a table clock in a monumental neoclassical style, with gold Roman numerals, an architectural frame, and a relief city panorama motif. The material appears to be imitation gold with a marble surface.

On a connotative level, clocks evoke the passage of history, the linear time of civilization, and the idea of continuous progress. Skyscrapers represent progress in construction, architecture, technology, and changes in socio-cultural reality. The upper part of the ancient Egyptian sarcophagus placed under the skyscrapers represents the foundation built on ancient civilizations. Roman numerals refer to antiquity as a symbol of the beginnings of “civilized time”. The architecture of the frame is reminiscent of monuments, triumphal arches, and mausoleums, through which time is monumentalized and “petrified.”
On a mythological level, clocks function as a visual myth of civilization, in which time is presented as a universal, objective, and controllable quantity. Neoclassical monumentality and the imitation of noble materials naturalize the idea that history has a fixed order, stable structure, and direction. Time here is neither chaotic nor cyclical, but linear, cumulative, and subordinate to human rationality. The ancient Egyptian sarcophagus as a foundation, above which the modern city panorama towers, creates a myth of continuity, according to which the current achievements of civilization are a direct and legitimate outcome of ancient cultures. In this framework, the past is reduced to a stable foundation on which the present and future can be built without conflict. This constructed image suppresses historical discontinuities, declines, and violent breaks, replacing them with an ideologically polished narrative of constant ascent. Roman numerals and classical architectural forms reinforce the Eurocentric myth of “civilized time”, in which antiquity functions as the normative beginning of history as measured, recorded, and controlled. The clock becomes not only an instrument for measuring time, but also a monument to power over time, and thus a symbol of civilization's ability not only to record history, but also to frame it, guide it with values, and aestheticize it. The object conveys the myth of the timeless stability of the civilizational project, in which time is “petrified” into a monumental form and subordinated to the logic of architecture, rationality, and power.

3.2 Yeld Icon Patch Set

Hexagon-shaped textile patches depicting iconic game symbols: food, science, culture, production, amenities. On a connotative level, the icons reduce complex social processes to clear symbols and quantifiable values. Their hexagonal shape refers to the game map. On a mythological level, the patches support the myth of the world as a system that can be optimized. Society, culture, and human happiness are quantifiable, i.e., translatable into numbers. Ideologically, this is a technocratic view of history: order, balance, and control.

3.3 Pin with logo

The denotative object is a small metal badge with the *Sid Meier’s Civilization VII* logo. At the connotative level, the badge functions as a sign of belonging and fan identity. The one who wears it publicly identifies with the brand as well as the discourse of the game. Unlike clocks or other paratexts in the collector's edition, badges are wearable objects of popular culture. At the mythical level, the brand becomes a cultural symbol, not just a product. The myth lies in the idea that playing the game signifies intellectual maturity, strategic thinking, and cultural capital.

3.4 Challenge Coin

A metal embossed coin with the game's emblem, round in shape and gold in color. On the other side are icons: a musical note, test tubes, coins, and a sword with a shield. On a connotative level, the coin refers to value, exchange, and power. The icons on the other side of the coin represent measurable indicators in the game such as culture, science, economy, and power. In the game context, it symbolizes the game mechanics of economics, resources, and decision-making. At the same time, it evokes commemorative or military “challenge coins” that confirm membership in the elite. The coin embodies the myth of rationalized power, where civilization prospers thanks to proper resource management. Value is abstract, universal, and measurable. Economic logic is presented as the natural foundation of history.

3.5 Scout Figure

A small statue of a human figure in motion, dressed in historical clothing, with a stick that also serves as a weapon. The figure stands with a wolf on a pedestal marked “VII”. Connotatively, the figurine represents initial contact with the world, discovery of the unknown, and expansion. The figure is dynamic, facing forward, covering its eyes to see into the distance, which represents a sign of initiation, exploration, and the beginning of the civilizing process. It is the myth of the colonizer. The world is empty, waiting to be discovered, named, and exploited. Indigenous cultures and conflicts are invisible, and it is the explorer who is heroized as a neutral bearer of progress. The game thus reproduces the modern myth of expansion as the natural right of civilization.

3.6 Civilization postcards

The denotative object is a set of printed postcards with illustrations of game environments and landscapes. Connotatively, the postcards evoke a tourist's view of history, which is aestheticized, peaceful, and conflict-free. History is transformed into a visual experience. It is a myth of history as a gallery in which the past is contemplative, beautiful, and safely distant. The player is a spectator of a world that can be admired, owned, and archived.

3.7 Art Print

Large-format art print with a central motif of the game, high-quality paper, golden-white stylization. On a connotative level, the print legitimizes the game as an artistic artifact. It refers to the tradition of art prints, concept art, and gallery exhibitions. The motif with the letter “C” refers not only to a specific title but also to the entire series and its history. The myth lies in the belief that video games are equivalent to high art. Art print transforms the gaming world into a cultural heritage worth preserving. At the same time, it serves as a representative element for fans, as such paratexts often serve as decorative elements.

4 CONCLUSION

The *Sid Meier’s Civilization VII Collector’s Edition* is a collection of physical paratexts that use visual, material, and symbolic elements to communicate the key thematic pillars of the entire series: time, historical progress, civilizational growth, and the player’s agenda. The individual items function not only as souvenirs, but also as semiotic objects that translate abstract game mechanics into a tangible, culturally readable form. An analysis of the collector's edition shows that physical paratexts function as meaning-making elements that connect material culture with the narrative of the digital game while influencing the gaming experience and ideological interpretation. The large, massive cover with a title image, gold hexagons, and historicizing decor communicates exclusivity, prestige, and value, while also visualizing the continuous historical progress of civilization. The gold decoration and monumental format of the packaging not only aesthetically legitimize the game, but also mythologize civilization as a linear, cumulative process in which technological development, urbanization, and political power are natural and desirable goals.

The “Passage of Time” table clock materializes the concept of linear time and the continuity of civilizational development. Roman numerals, neoclassical monumentality, and a panorama ranging from ancient Egyptian sarcophagi to modern skyscrapers symbolize the legitimized sequence of history, eliminating discontinuities and conflicts. The clock thus functions as a visual myth of civilization, where time is objective, controllable, and subordinate to human

rationality. Hexagon patches and Challenge Coins reduce complex social and economic processes to quantifiable game mechanics, promoting a technocratic perception of society and reform. The Scout Figure represents a mythologized image of the explorer, heroizing expansion and discovery and ignoring indigenous cultures and conflicts, thereby conveying to the player the idea of civilization's natural right to grow and control the world. Postcards and Art Prints aestheticize history and legitimize the game as a cultural artifact that transforms the digital game world into part of the visual and symbolic heritage.
In terms of monetization, the collector's edition shows that physical elements are not just an addition to the digital title, but are a key tool for transmedia storytelling and connecting the player to the game world. The absence of a digital game in one of the versions underscores the merchandising nature of the edition and at the same time allows for flexibility in platform selection, thereby strengthening interaction with the content before the actual gameplay. Tangible artifacts support the pre-structuring of the gaming experience, construct the player's identity as a strategic and enlightened leader, and convey ideological frameworks in which civilization, power, and progress are natural values.
Overall, the collector's edition of *Sid Meier's Civilization VII* demonstrates the synergistic connection between monetization, material culture, and transmedia storytelling. Paratexts not only extend the game world into physical space, but also naturalize abstract mechanics and historical narratives, creating a complex myth of continuity, rationality, and timeless stability of the civilization project. The game thus ceases to be merely a digital product and becomes a cultural artifact that conveys aesthetic, ideological, and symbolic meaning across multiple levels of interpretation.

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BEYOND TECHNICAL KNOWLEDGE: SOFT SKILLS AND THE EMPLOYABILITY OF ECONOMICS STUDENTS (A SLOVAK STUDY – PART 1/4: UNDERSTANDING SOFT SKILLS IN BUSINESS NEGOTIATIONS)

Sonia Krajčík Danišová, Dajana Novák

Abstract

This study examines the importance of soft skills in enhancing the employability of economics students in Slovakia. As labour market demands increasingly extend beyond technical expertise to include interpersonal competencies, higher education institutions face growing pressure to adapt their curricula. Based on a survey of economics students at a selected Slovak university, the research identifies key soft skills considered essential for future employment, notably communication, teamwork, adaptability, and critical thinking. The findings indicate a discrepancy between students' current level of soft skill development and employer expectations. The study concludes with recommendations for more effective integration of soft skills training into economics programmes, highlighting the importance of closer cooperation between academic institutions and the business sector.

Key words: *soft skills, economics students, employability, higher education, labour market, communication skills, curriculum development, graduate competencies, university-business cooperation*

1 INTRODUCTION

Negotiation extends beyond the mere exchange of words; it is a complex process that requires effective communication in both spoken and written forms. While written communication is often underestimated, it plays a crucial role in the preparation, documentation, and formalization of agreements. At the same time, soft skills are essential for successful negotiation in intercultural environments, where achieving mutual consensus depends on more than technical accuracy alone. Academic institutions such as the Bratislava University of Economics and Business emphasise the development of strong writing abilities alongside a solid foundation in soft skills to prepare students for complex negotiation scenarios. By integrating soft skills training into negotiation education, educators can bridge the gap between theory and practice, equipping students with clarity, critical thinking, and strategic insight. This paper examines the synergy between soft skills and negotiation and presents a framework for their joint development as a basis for further research within the current KEGA project, which is introduced in Chapter 2.

2 INTRODUCTION OF THE KEGA PROJECT Nr. 040EU-4/2024

Nowadays, most companies and businesses recognize that negotiation skills are essential for improving profitability and serve as key tools for conflict resolution at all levels within organizations. A lack of negotiation skills can lead to a significant decrease in work efficiency, loss of employees, and eventual profit losses. A clear and structured approach to negotiation has a significant impact on economic outcomes, meaning that businesses whose employees possess conflict resolution or negotiation skills have an advantage over those whose employees do not. Such businesses not only achieve better agreements for themselves but also develop and maintain profitable business relationships both within and outside the company.

However, the problem originates directly within the educational system. Several economists from practice (authors of professional publications) criticize current economic fields of study and MBA programs for failing to develop employability skills such as communication, teamwork, negotiation, and systematic leadership among their students. According to American economist Laura D'Andrea Tyson, who previously served as dean of prestigious schools like Berkeley Haas (1998–2001) and London Business School (2002–2006), "...skills development was largely a marginal element of MBA programs. Schools and educational institutions with an economic focus generally assumed that acquiring communication and negotiation skills was the responsibility of businesses and individuals. However, this assumption no longer holds true." She also noted that the increasing emphasis on developing soft skills, such as communication and negotiation, in MBA programs has replaced the earlier belief that these skills should be cultivated primarily by employers rather than educational institutions. [1]

Economists Bennis and O'Toole are similarly critical of various economics and MBA programs, arguing that they not only fail to provide useful skills but also do not prepare future leaders or instil norms of ethical behaviour in students. [3] Kemp and Seagraves identified the need for skills such as adaptability, communication, and teamwork, given the changing demands of employers. The demand for these so-called soft or transferable skills has increased due to the need for a more flexible and adaptable workforce in today’s dynamic business environment. [2]

Economists Carnevale, Gainer, Meltzer, and Eunson have pointed out that negotiation and conflict resolution skills are essential for students’ successful entry into practice. [4][5] According to economists Lax, Sebenius, and Mintzberg, these skills are also crucial for management effectiveness in general. [6][7] Moreover, in 2021, extensive research was conducted by SAAVŠ, aimed at mapping the skills of Slovak university students. The results revealed that "students develop transferable skills only to a limited extent, despite these being key for employers across sectors. For example, the ability to communicate professionally in English or another global language." Proficiency in foreign languages is a crucial requirement for university graduates, which is further confirmed by an analysis of the Profesia.sk job portal, where English is the most common requirement. The urgent need to fundamentally overhaul the curriculum for MBA programmes, as well as the specialized course *Business Negotiations*, taught at institutions such as the University of Economics in Bratislava, is therefore inevitable.

This project represents comprehensive research in cooperation with domestic and international companies operating in Slovakia, from which original and practically relevant results are expected. The goal of our KEGA project no. 040EU-4/2024 is to restructure and implement a negotiation course in English, which, unlike the current *Negotiations in English* course, will be specifically designed to enhance the knowledge and skills of students from all seven faculties of the University of Economics in Bratislava in the area of business negotiation. The systematic development of students' negotiation skills is expected not only to improve their employability but also to increase their satisfaction with the course and help meet employers’ expectations in this area. We anticipate that this research will also assist in designing future courses aimed at improving students' employability. Additionally, the project should contribute to the literature on the professional training of economics students and address the lack of research dealing with the development of complex interpersonal skills, such as negotiation.

3 IMPORTANCE OF SOFT SKILLS DEVELOPMENT AT UNIVERSITIES AND IN BUSINESS PRACTICE

The set of 17 soft skills identified in this study represents a comprehensive and multidimensional competency framework essential for effective business negotiations and broader professional interactions. These competencies are grouped into four key domains: communication skills, interpersonal skills, adaptability and resilience, and emotional intelligence. Together, they capture the human-centred qualities that complement technical knowledge and professional expertise in the contemporary business environment.

The first domain, communication skills, encompasses Active Listening, Effective Communication, and Persuasion. These competencies form the foundation of the negotiation process by facilitating constructive dialogue, clear expression of ideas, and mutual understanding. Active Listening enables negotiators to remain fully engaged and responsive, thereby supporting trust-building and the identification of underlying interests. Effective Communication includes both oral and written forms, ensuring clarity, consistency, and professionalism. Although Persuasion was rated as less critical by students, it remains relevant for influencing negotiation outcomes through structured arguments and strategic messaging.

The second domain, interpersonal skills, includes Empathy, Relationship Building, Teamwork, Conflict Resolution, Problem-Solving, Critical Thinking, and Decision-Making. These interconnected skills support the creation of collaborative, solution-focused relationships. Empathy allows individuals to recognize and interpret the emotions and viewpoints of others, while Relationship Building and Teamwork encourage cooperation and shared objectives. Conflict Resolution is vital for addressing disagreements constructively, whereas Problem-Solving and Critical Thinking enable the identification of core issues, evaluation of alternatives, and development of effective responses. Decision-Making integrates these competencies by guiding individuals toward well-reasoned and evidence-based choices.

The third domain, adaptability and resilience, comprises Adaptability, Resilience, and Flexibility – competencies that are particularly important in uncertain, changing, and high-pressure negotiation contexts. Adaptability refers to the ability to modify strategies and behaviours in response to new circumstances or information. Resilience reflects the capacity to recover from challenges and setbacks, while Flexibility highlights openness to alternative perspectives and a willingness to revise plans when required. Together, these skills help negotiators maintain performance and composure in dynamic environments.

The final domain, emotional intelligence, includes Self-Awareness, Self-Regulation, Social Awareness, and Relationship Management. These competencies relate to the recognition, understanding, and management of emotions in oneself and others. Self-Awareness serves as a core element by enabling individuals to identify emotional triggers and behavioural patterns. Self-Regulation supports emotional control and appropriate reactions, while Social Awareness enhances sensitivity to social cues and interpersonal dynamics. Relationship Management focuses on sustaining constructive and respectful professional relationships, which is particularly important in long-term cooperation.

In conclusion, the identified 17 soft skills form a holistic framework for the personal and social competencies required for successful business negotiation. The emphasis placed by students of the Bratislava University of Economics and Business on communication and critical thinking, alongside their recognition of interpersonal and emotional skills, highlights the complex and multidimensional nature of negotiation effectiveness. As business environments continue to evolve, the systematic integration of these soft skills into educational and training programmes will be crucial for preparing future professionals to manage complex human interactions with confidence, empathy, and strategic awareness.

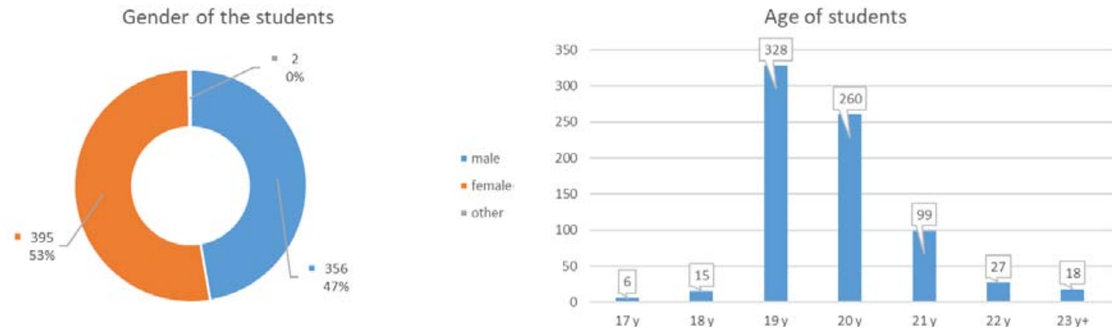
4 QUESTIONNAIRE RESULTS ON IMPORTANCE OF SOFT SKILLS AMONG STUDENTS OF BRATISLAVA UNIVERSITY OF ECONOMICS AND BUSINESS

The research was conducted via a structured questionnaire given to as many respondents as possible from the Bratislava University of Economics and Business in Slovakia (formerly known as University of Economics in Bratislava). The aim was to map what the economics students see as crucial when it comes to social skills necessary to have in practical level of work life that some of them already are actively experiencing.

The diversity of both age groups and genders (as seen on Graph 1) is encouraging because it suggests the responses come from a range experiences, making the findings even that more comprehensive and well-rounded. The faculties participating in the survey were Faculty of Economy and Finance, Faculty of Commerce, Faculty of Management, Faculty of Economic Informatics and Faculty of International Relations (as seen in Graph 2). Number of working students was 361 (48%) and there were 392 non-working students (52%), which also shown in Graph 2. All of the students were from the full-time studies studying in-site daily at the university (as seen in Graph 3). This last graph also shows which year of study the students participating in survey were currently in (72% from the 1st year of studies, 25% from the 2nd year 3% from the 3rd year and only one student from the 4th grade).

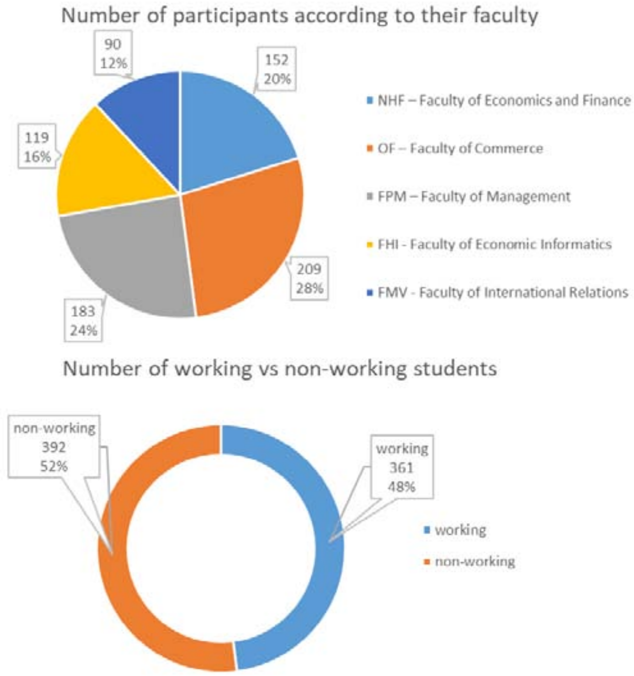
The questionnaires were handed out via a Google Docs form in both English and Slovak and majority of the students were from Slovakia, with a hand-full of students from both Ukraine and Russia. This was the second phase of such research and the period devoted for the data gathering was 3 months long (it started in the middle of September 2025 and lasted till the end of winter semester in the middle of December 2025). The survey response rate was somewhere around 98%, because they were given to the students in classes or within the examination period, so that we could gradually monitor if and how many students have already submitted the questionnaire.

Graph 1 – Gender and age group of 753 survey respondents



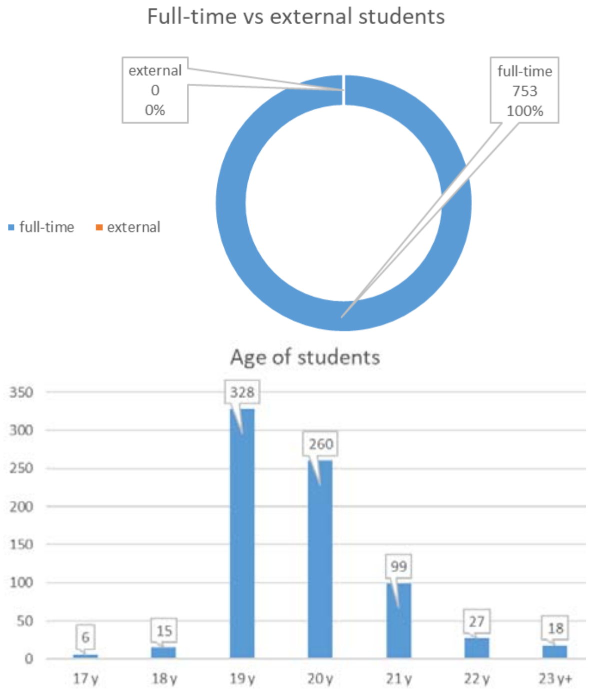
Source: Own processing based on the results of the conducted survey

Graph 2 – Number of participants according to their faculty and their work-related status



Source: Own processing based on the results of the conducted survey

Graph 3 – Number of students according to the full-time vs external status and the year of study



Source: Own processing based on the results of the conducted survey

Understanding soft skills in business negotiation is crucial for economics students, so we asked them to assign 0 to 4 points to each skill according to their importance, with 4 being the most important and 0 the least important, in their opinion. Table 1 and Graph 4 both show number of students assigning 0 to 4 points to each soft skill according to their importance.

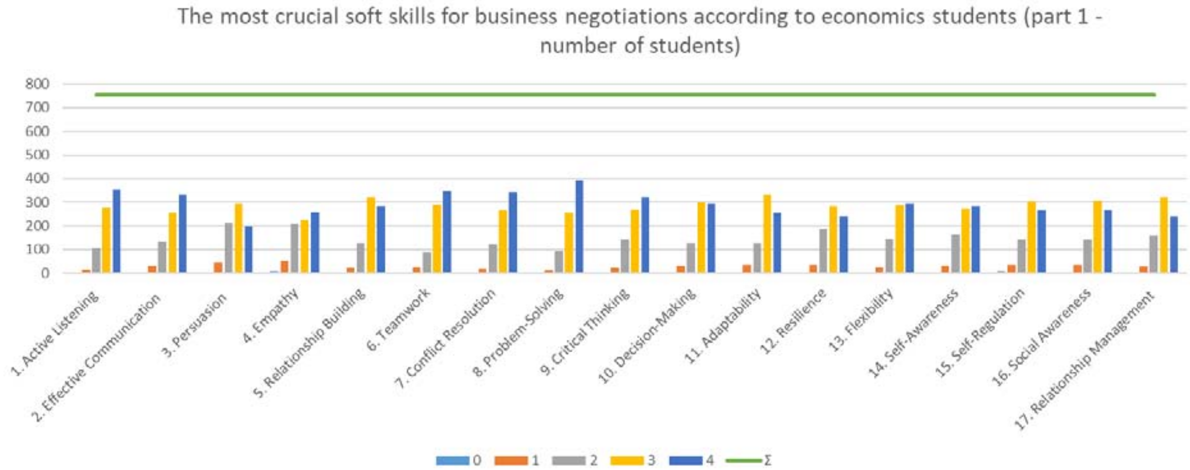
Table 2 and Graph 5 both show number of points in total from all the 753 participants earned for each soft skill according to their importance.

Table 1 – The most crucial soft skills for business negotiations according to economics students (part 1 – number of students assigning 0 to 4 points to each soft skill according to their importance)

	0	**1**	**2**	**3**	**4**	**Σ**
1. Active Listening	1	15	106	277	354	753
2. Effective Communication	1	31	133	254	334	753
3. Persuasion	4	45	212	293	199	753
4. Empathy	7	55	208	225	258	753
5. Relationship Building	0	21	126	323	283	753
6. Teamwork	3	24	90	290	346	753
7. Conflict Resolution	3	19	124	264	343	753
8. Problem-Solving	2	12	91	255	393	753
9. Critical Thinking	0	23	140	269	321	753
10. Decision-Making	3	31	126	300	293	753
11. Adaptability	4	35	129	332	253	753
12. Resilience	3	37	189	284	240	753
13. Flexibility	2	26	144	287	294	753
14. Self-Awareness	4	32	164	271	282	753
15. Self-Regulation	6	37	142	304	264	753
16. Social Awareness	5	36	140	307	265	753
17. Relationship Management	1	29	160	322	241	753

Source: Own processing based on the results of the conducted survey

Graph 4 – The most crucial soft skills for business negotiations according to economics students (part 1 – number of students assigning 0 to 4 points to each soft skill according to their importance)



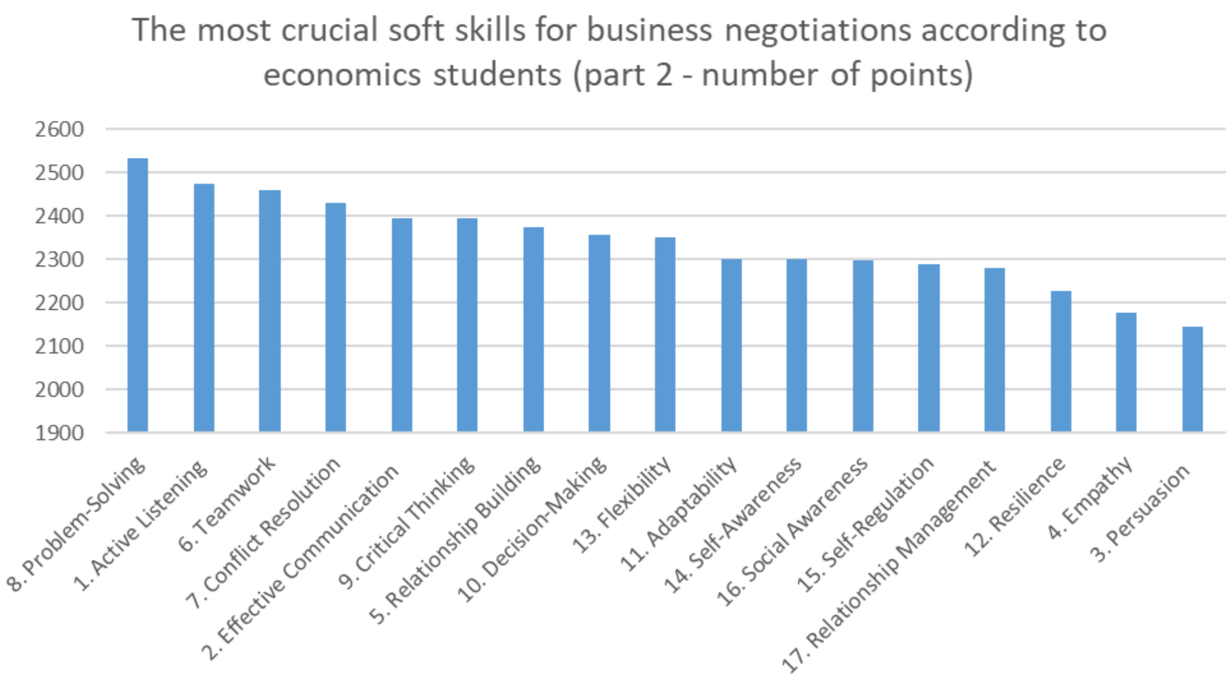
Source: Own processing based on the results of the conducted survey

Table 2 – The most crucial soft skills for business negotiations according to economics students (part 2 – number of points in total from all the 753 participants earned for each soft skill according to their importance)

8. Problem-Solving	2531
1. Active Listening	2474
6. Teamwork	2458
7. Conflict Resolution	2431
2. Effective Communication	2395
9. Critical Thinking	2394
5. Relationship Building	2374
10. Decision-Making	2355
13. Flexibility	2351
11. Adaptability	2301
14. Self-Awareness	2301
16. Social Awareness	2297
15. Self-Regulation	2289
17. Relationship Management	2279
12. Resilience	2227
4. Empathy	2178
3. Persuasion	2144

Source: Own processing based on the results of the conducted survey

Graph 5 – The most crucial soft skills for business negotiations according to economics students (part 2 – number of points in total from all the 753 participants earned for each soft skill according to their importance)



Source: Own processing based on the results of the conducted survey

5 CONCLUSION

This study has demonstrated that soft skills represent a critical component of employability for economics students, particularly in the context of business negotiations. The findings confirm that contemporary labour market requirements extend well beyond technical and disciplinary knowledge, placing increasing emphasis on communication, problem-solving, teamwork, and critical thinking. The identification of seventeen core soft skills, structured into four interrelated domains, highlights the multidimensional nature of negotiation competence and underscores the necessity of a holistic approach to skills development in higher education. Students' perceptions further indicate a strong awareness of the importance of these competencies for professional success, especially those related to effective communication and analytical reasoning.

The questionnaire results reveal both strengths and gaps in students' evaluation of soft skills, reflecting a partial misalignment between current educational practices and employer expectations. While skills such as problem-solving, active listening, and teamwork were rated as highly important, other competencies (particularly persuasion and empathy) received comparatively lower scores, despite their documented relevance in negotiation theory and practice. This discrepancy suggests that students may underestimate certain interpersonal and emotional dimensions of negotiation, pointing to the need for more explicit instruction and experiential learning opportunities that emphasize the practical application of these skills in real-world business contexts.

In response to these findings, the study supports the strategic integration of soft skills training into economics curricula through targeted course redesign, interdisciplinary cooperation, and closer collaboration with business practitioners. The KEGA project presented in this article represents a concrete step toward addressing these challenges by aligning academic content with labour market needs and enhancing students' preparedness for professional negotiation environments. Ultimately, systematic and intentional development of soft skills within university programmes is essential not only for improving graduate employability but also for fostering adaptable, reflective, and socially competent professionals capable of navigating the complexities of modern economic and organizational life.

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BEYOND TECHNICAL KNOWLEDGE: SOFT SKILLS AND THE EMPLOYABILITY OF ECONOMICS STUDENTS (A SLOVAK STUDY – PART 2/4: ASSESSING THE IMPORTANCE OF SOCIAL SKILLS IN HIRING DECISIONS)

Sonia Krajčík Danišová, Dajana Novák

Abstract

This study examines the importance of soft skills in enhancing the employability of economics students in Slovakia. As labour market demands increasingly extend beyond technical expertise to include interpersonal competencies, higher education institutions face growing pressure to adapt their curricula. Based on a survey of economics students at a selected Slovak university, the research identifies key soft skills considered essential for future employment, notably communication, teamwork, adaptability, and critical thinking. The findings indicate a discrepancy between students' current level of soft skill development and employer expectations. The study concludes with recommendations for more effective integration of soft skills training into economics programmes, highlighting the importance of closer cooperation between academic institutions and the business sector.

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1 INTRODUCTION

Negotiation extends beyond the mere exchange of words; it is a complex process that requires effective communication in both spoken and written forms. While written communication is often underestimated, it plays a crucial role in the preparation, documentation, and formalization of agreements. At the same time, soft skills are essential for successful negotiation in intercultural environments, where achieving mutual consensus depends on more than technical accuracy alone. Academic institutions such as the Bratislava University of Economics and Business emphasise the development of strong writing abilities alongside a solid foundation in soft skills to prepare students for complex negotiation scenarios. By integrating soft skills training into negotiation education, educators can bridge the gap between theory and practice, equipping students with clarity, critical thinking, and strategic insight. This paper examines the synergy between soft skills and negotiation and presents a framework for their joint development as a basis for further research within the current KEGA project, which is introduced in Chapter 2.

2 INTRODUCTION OF THE KEGA PROJECT Nr. 040EU-4/2024

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4 QUESTIONNAIRE RESULTS ON IMPORTANCE OF SOFT SKILLS AMONG STUDENTS OF BRATISLAVA UNIVERSITY OF ECONOMICS AND BUSINESS

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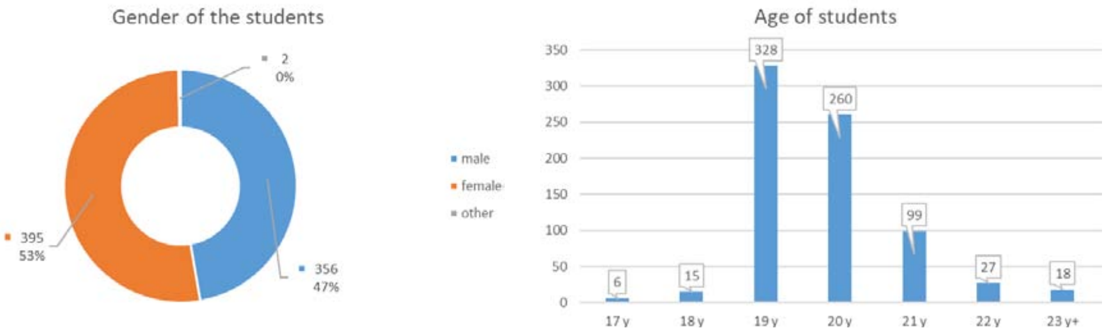
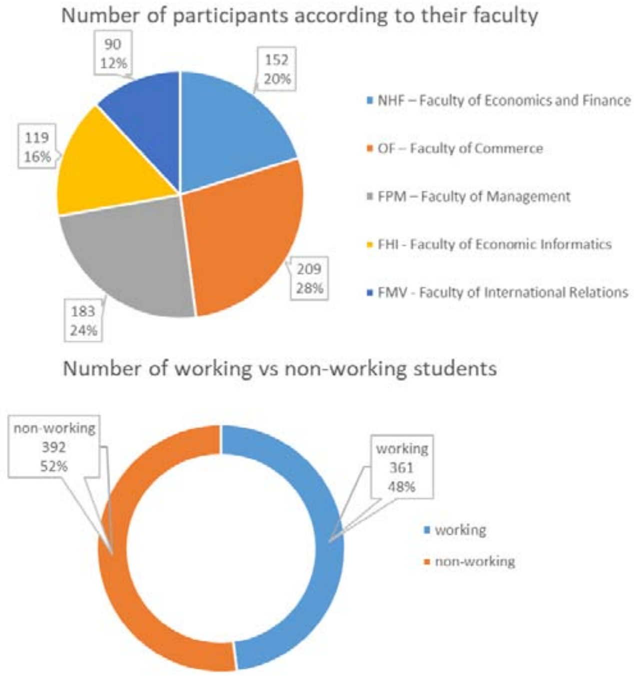
Graph 1 – Gender and age group of 753 survey respondents



Source: Own processing based on the results of the conducted survey

Graph 2 – Number of participants according to their faculty and their work-related status



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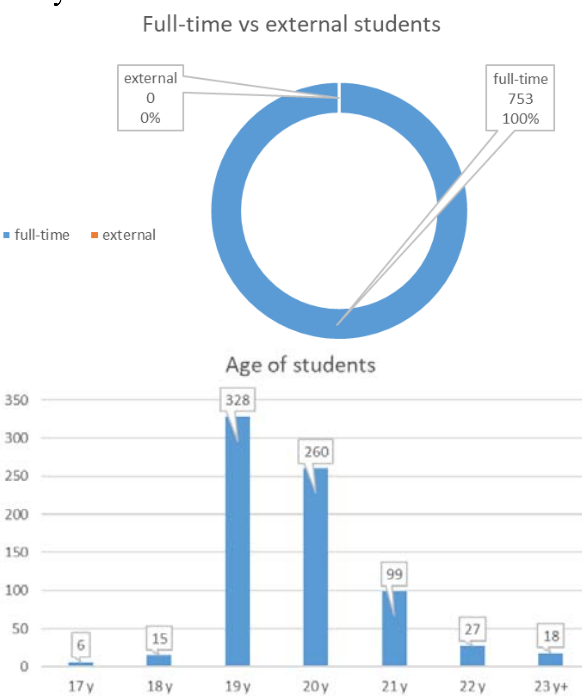
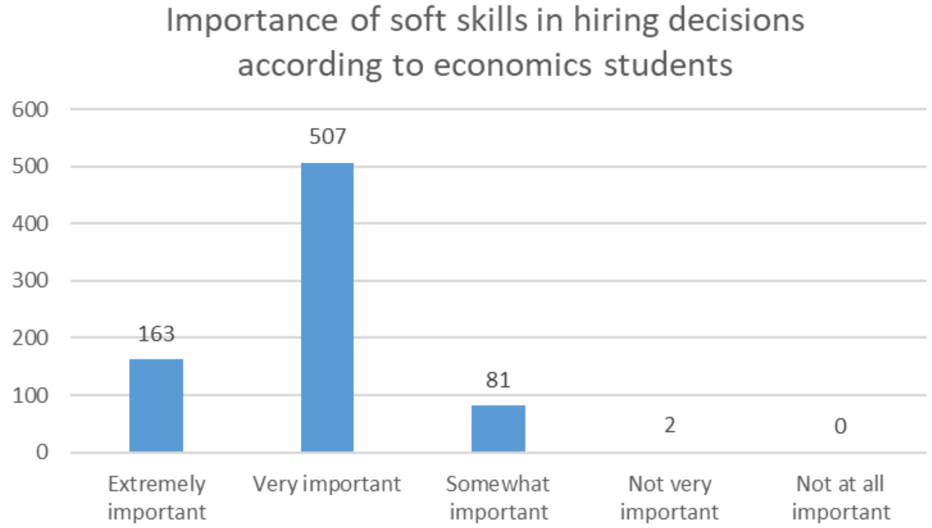
Graph 3 – Number of students according to the full-time vs external status and the year of study



Source: Own processing based on the results of the conducted survey

Assessing the importance of soft skills in hiring decisions was done through the following questions. The students were asked to decide how important these soft skills were. Table 1 and Graph 4 both show the answers and we can see, that all the students consider them either extremely important or very important.

Graph 4 – Importance of soft skills in hiring decisions according to economics students



Source: Own processing based on the results of the conducted survey

Table 1 – Importance of soft skills in hiring decisions according to economics students

Extremely important	163
Very important	507
Somewhat important	81
Not very important	2
Not at all important	0

Source: Own processing based on the results of the conducted survey

Secondly, the students were asked what specific soft skills they would prioritize when assessing a graduate's potential for success in business negotiation. They were asked to choose 7 skills on the scale from 1 to 7, from the most important soft skill (1) to those less important ones (2 – 7). Table 2 and Table 3 show the answers and we can see, that there are a lot of correlations with the previous rankings of the 17 soft skills from the first part of our research.

Table 2 and Table 3 – List of specific soft skills prioritized by economics students when assessing a graduate's potential for success in business negotiation

8. Problem-Solving
1. Active Listening
6. Teamwork
7. Conflict Resolution
2. Effective Communication
9. Critical Thinking
5. Relationship Building
10. Decision-Making
13. Flexibility
11. Adaptability
14. Self-Awareness
16. Social Awareness

1. Active Listening
2. Effective Communication
3. Persuasion
4. Empathy
5. Relationship Building
6. Teamwork
7. Conflict Resolution
8. Problem-Solving
9. Critical Thinking
10. Decision-Making
11. Adaptability
12. Resilience

15. Self-Regulation	13. Flexibility
17. Relationship Management	14. Self-Awareness
12. Resilience	15. Self-Regulation
4. Empathy	16. Social Awareness
3. Persuasion	17. Relationship Management

Source: Own processing based on the results of the conducted survey

Thirdly, we asked the students to evaluate a candidate's possession of these soft skills during the interview process. They were asked to select all that apply, which means that even more than one, none of them, or even all of them. Number of participants selecting the following options are shown in the brackets.

❖ BEHAVIORAL INTERVIEW QUESTIONS
- ✓ Probing for concrete examples of how the candidate handled challenging situations *(427 participants)*
- ✓ Asking specific questions about past experiences that demonstrate the desired soft skills *(404 participants)*
- ✓ Assessing their ability to articulate their thought process and decision-making skills *(302 participants)*

❖ ROLE-PLAY SIMULATIONS
- ✓ Evaluating their communication skills, active listening, problem-solving, and adaptability *(401 participants)*
- ✓ Creating simulated negotiation scenarios to observe the candidate's behaviour in real-time *(387 participants)*
- ✓ Assessing their ability to think on their feet and respond effectively to unexpected challenges *(311 participants)*

❖ GROUP EXERCISES
- ✓ Assessing their teamwork, collaboration, and leadership skills *(405 participants)*
- ✓ Observing how the candidate interacts with others in a group setting *(400 participants)*
- ✓ Evaluating their ability to contribute to a team's success and resolve conflicts constructively *(342 participants)*

❖ CASE STUDIES
- ✓ Analysing the candidate's problem-solving, critical thinking, and decision-making abilities *(446 participants)*
- ✓ Assessing their ability to identify key issues, develop creative solutions, and communicate their ideas effectively *(380 participants)*
- ✓ Presenting complex business scenarios that require the application of soft skills *(242 participants)*

❖ PERSONALITY ASSESSMENTS
- ✓ Identifying potential strengths and weaknesses in areas like emotional intelligence, communication, and teamwork *(552 participants)*
- ✓ Using validated personality assessments to gain insights into the candidate's personality trait *(234 participants)*
- ✓ Using the results to inform the interview process and identify areas for further exploration *(204 participants)*

- ❖ REFERENCE CHECKS
- ✓ Verifying the accuracy of the candidate's self-assessment and identifying any potential red flags *(390 participants)*
- ✓ Gaining insights into the candidate's work ethic, interpersonal skills, and problem-solving abilities *(386 participants)*
- ✓ Contacting previous employers and colleagues to gather information about the candidate's soft skills *(322 participants)*

- ❖ OBSERVATION AND INTUITION
- ✓ Paying attention to the candidate's nonverbal cues, body language, and tone of voice *(466 participants)*
- ✓ Assessing their level of enthusiasm, confidence, and engagement during the interview *(373 participants)*
- ✓ Using intuition and experience to identify potential soft skills based on subtle cues and behaviours *(251 participants)*

- ❖ STRUCTURED INTERVIEWS
- ✓ Developing a structured interview guide with specific questions designed to assess soft skills *(417 participants)*
- ✓ Ensuring consistency and fairness in the evaluation process *(319 participants)*
- ✓ Using a rating scale or checklist to objectively score the candidate's responses *(268 participants)*

- ❖ PEER REVIEWS AND FEEDBACK
- ✓ Encouraging open and honest discussion of the candidate's strengths and weaknesses *(490 participants)*
- ✓ Involving multiple interviewers in the assessment process *(271 participants)*
- ✓ Using a consensus-based approach to reach a final decision *(229 participants)*

- ❖ FOLLOW-UP INTERVIEWS
- ✓ Observing candidate's behaviour in different contexts and settings *(392 participants)*
- ✓ Gaining a more comprehensive understanding of their abilities and potential *(341 participants)*
- ✓ Conducting additional interviews or meetings to further assess the candidate's soft skills *(305 participants)*

5 CONCLUSION

This study has confirmed that soft skills play a decisive role in hiring decisions concerning economics graduates, particularly in relation to business negotiation and broader employability. The findings clearly indicate that students overwhelmingly perceive soft skills as either extremely important or very important when assessing candidates’ potential for success in the labour market. This strong consensus underscores the growing recognition that technical knowledge alone is insufficient and must be complemented by interpersonal, communicative, and cognitive competencies in order to meet contemporary employer expectations.

The results further demonstrate a high degree of consistency between students’ prioritization of specific soft skills and the broader competency framework identified in the first phase of the research. Skills such as problem-solving, active listening, effective communication,

teamwork, and conflict resolution emerged as particularly critical, reflecting their central role in negotiation contexts and organizational practice. In addition, students showed a nuanced understanding of how these skills can be assessed during recruitment processes, favouring structured and multi-method approaches, including behavioural interviews, case studies, role-play simulations, and personality assessments. This suggests an advanced awareness of recruitment realities and the complexity involved in evaluating non-technical competencies.
Taken together, the findings highlight the urgent need for higher education institutions to respond more systematically to labour market demands by embedding soft skills development into economics curricula. The outcomes of this research support the objectives of the KEGA project by providing empirical evidence for curriculum innovation and closer cooperation between universities and employers. Strengthening the alignment between educational outcomes and hiring practices has the potential to enhance graduate employability, improve transition into professional practice, and contribute to the development of adaptable and socially competent economics professionals capable of succeeding in increasingly complex negotiation and business environments.

This article was created as part of research projects of the Ministry of Education, Family, and Sports of the Slovak Republic KEGA 040EU-4/2024.

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BEYOND TECHNICAL KNOWLEDGE: SOFT SKILLS AND THE EMPLOYABILITY OF ECONOMICS STUDENTS (A SLOVAK STUDY – PART 3/4: CHALLENGES AND OPPORTUNITIES)

Sonia Krajčík Danišová

Abstract

This study examines the importance of soft skills in enhancing the employability of economics students in Slovakia. As labour market demands increasingly extend beyond technical expertise to include interpersonal competencies, higher education institutions face growing pressure to adapt their curricula. Based on a survey of economics students at a selected Slovak university, the research identifies key soft skills considered essential for future employment, notably communication, teamwork, adaptability, and critical thinking. The findings indicate a discrepancy between students' current level of soft skill development and employer expectations. The study concludes with recommendations for more effective integration of soft skills training into economics programmes, highlighting the importance of closer cooperation between academic institutions and the business sector.

Key words: *soft skills, economics students, employability, higher education, labour market, communication skills, curriculum development, graduate competencies, university-business cooperation*

1 INTRODUCTION

Negotiation extends beyond the mere exchange of words; it is a complex process that requires effective communication in both spoken and written forms. While written communication is often underestimated, it plays a crucial role in the preparation, documentation, and formalization of agreements. At the same time, soft skills are essential for successful negotiation in intercultural environments, where achieving mutual consensus depends on more than technical accuracy alone. Academic institutions such as the Bratislava University of Economics and Business emphasise the development of strong writing abilities alongside a solid foundation in soft skills to prepare students for complex negotiation scenarios. By integrating soft skills training into negotiation education, educators can bridge the gap between theory and practice, equipping students with clarity, critical thinking, and strategic insight. This paper examines the synergy between soft skills and negotiation and presents a framework for their joint development as a basis for further research within the current KEGA project, which is introduced in Chapter 2.

2 INTRODUCTION OF THE KEGA PROJECT Nr. 040EU-4/2024

Nowadays, most companies and businesses recognize that negotiation skills are essential for improving profitability and serve as key tools for conflict resolution at all levels within organizations. A lack of negotiation skills can lead to a significant decrease in work efficiency, loss of employees, and eventual profit losses. A clear and structured approach to negotiation has a significant impact on economic outcomes, meaning that businesses whose employees possess conflict resolution or negotiation skills have an advantage over those whose employees do not. Such businesses not only achieve better agreements for themselves but also develop and maintain profitable business relationships both within and outside the company.

However, the problem originates directly within the educational system. Several economists from practice (authors of professional publications) criticize current economic fields of study and MBA programs for failing to develop employability skills such as communication, teamwork, negotiation, and systematic leadership among their students. According to American economist Laura D'Andrea Tyson, who previously served as dean of prestigious schools like Berkeley Haas (1998–2001) and London Business School (2002–2006), "...skills development was largely a marginal element of MBA programs. Schools and educational institutions with an economic focus generally assumed that acquiring communication and negotiation skills was the responsibility of businesses and individuals. However, this assumption no longer holds true." She also noted that the increasing emphasis on developing soft skills, such as communication and negotiation, in MBA programs has replaced the earlier belief that these skills should be cultivated primarily by employers rather than educational institutions. [1]

Economists Bennis and O'Toole are similarly critical of various economics and MBA programs, arguing that they not only fail to provide useful skills but also do not prepare future leaders or instil norms of ethical behaviour in students. [3] Kemp and Seagraves identified the need for skills such as adaptability, communication, and teamwork, given the changing demands of employers. The demand for these so-called soft or transferable skills has increased due to the need for a more flexible and adaptable workforce in today’s dynamic business environment. [2]

Economists Carnevale, Gainer, Meltzer, and Eunson have pointed out that negotiation and conflict resolution skills are essential for students’ successful entry into practice. [4][5] According to economists Lax, Sebenius, and Mintzberg, these skills are also crucial for management effectiveness in general. [6][7] Moreover, in 2021, extensive research was conducted by SAAVŠ, aimed at mapping the skills of Slovak university students. The results revealed that "students develop transferable skills only to a limited extent, despite these being key for employers across sectors. For example, the ability to communicate professionally in English or another global language." Proficiency in foreign languages is a crucial requirement for university graduates, which is further confirmed by an analysis of the Profesia.sk job portal, where English is the most common requirement. The urgent need to fundamentally overhaul the curriculum for MBA programmes, as well as the specialized course *Business Negotiations*, taught at institutions such as the University of Economics in Bratislava, is therefore inevitable.

This project represents comprehensive research in cooperation with domestic and international companies operating in Slovakia, from which original and practically relevant results are expected. The goal of our KEGA project no. 040EU-4/2024 is to restructure and implement a negotiation course in English, which, unlike the current *Negotiations in English* course, will be specifically designed to enhance the knowledge and skills of students from all seven faculties of the University of Economics in Bratislava in the area of business negotiation. The systematic development of students' negotiation skills is expected not only to improve their employability but also to increase their satisfaction with the course and help meet employers’ expectations in this area. We anticipate that this research will also assist in designing future courses aimed at improving students' employability. Additionally, the project should contribute to the literature on the professional training of economics students and address the lack of research dealing with the development of complex interpersonal skills, such as negotiation.

3 IMPORTANCE OF SOFT SKILLS DEVELOPMENT AT UNIVERSITIES AND IN BUSINESS PRACTICE

The set of 17 soft skills identified in this study represents a comprehensive and multidimensional competency framework essential for effective business negotiations and broader professional interactions. These competencies are grouped into four key domains: communication skills, interpersonal skills, adaptability and resilience, and emotional intelligence. Together, they capture the human-centred qualities that complement technical knowledge and professional expertise in the contemporary business environment.

The first domain, communication skills, encompasses Active Listening, Effective Communication, and Persuasion. These competencies form the foundation of the negotiation process by facilitating constructive dialogue, clear expression of ideas, and mutual understanding. Active Listening enables negotiators to remain fully engaged and responsive, thereby supporting trust-building and the identification of underlying interests. Effective Communication includes both oral and written forms, ensuring clarity, consistency, and professionalism. Although Persuasion was rated as less critical by students, it remains relevant for influencing negotiation outcomes through structured arguments and strategic messaging.

The second domain, interpersonal skills, includes Empathy, Relationship Building, Teamwork, Conflict Resolution, Problem-Solving, Critical Thinking, and Decision-Making. These interconnected skills support the creation of collaborative, solution-focused relationships. Empathy allows individuals to recognize and interpret the emotions and viewpoints of others, while Relationship Building and Teamwork encourage cooperation and shared objectives. Conflict Resolution is vital for addressing disagreements constructively, whereas Problem-Solving and Critical Thinking enable the identification of core issues, evaluation of alternatives, and development of effective responses. Decision-Making integrates these competencies by guiding individuals toward well-reasoned and evidence-based choices.

The third domain, adaptability and resilience, comprises Adaptability, Resilience, and Flexibility – competencies that are particularly important in uncertain, changing, and high-pressure negotiation contexts. Adaptability refers to the ability to modify strategies and behaviours in response to new circumstances or information. Resilience reflects the capacity to recover from challenges and setbacks, while Flexibility highlights openness to alternative perspectives and a willingness to revise plans when required. Together, these skills help negotiators maintain performance and composure in dynamic environments.

The final domain, emotional intelligence, includes Self-Awareness, Self-Regulation, Social Awareness, and Relationship Management. These competencies relate to the recognition, understanding, and management of emotions in oneself and others. Self-Awareness serves as a core element by enabling individuals to identify emotional triggers and behavioural patterns. Self-Regulation supports emotional control and appropriate reactions, while Social Awareness enhances sensitivity to social cues and interpersonal dynamics. Relationship Management focuses on sustaining constructive and respectful professional relationships, which is particularly important in long-term cooperation.

In conclusion, the identified 17 soft skills form a holistic framework for the personal and social competencies required for successful business negotiation. The emphasis placed by students of the Bratislava University of Economics and Business on communication and critical thinking, alongside their recognition of interpersonal and emotional skills, highlights the complex and multidimensional nature of negotiation effectiveness. As business environments continue to evolve, the systematic integration of these soft skills into educational and training programmes will be crucial for preparing future professionals to manage complex human interactions with confidence, empathy, and strategic awareness.

4 QUESTIONNAIRE RESULTS ON IMPORTANCE OF SOFT SKILLS AMONG STUDENTS OF BRATISLAVA UNIVERSITY OF ECONOMICS AND BUSINESS

The research was conducted via a structured questionnaire given to as many respondents as possible from the Bratislava University of Economics and Business in Slovakia (formerly known as University of Economics in Bratislava). The aim was to map what the economics students see as crucial when it comes to social skills necessary to have in practical level of work life that some of them already are actively experiencing.

The diversity of both age groups and genders (as seen on Graph 1) is encouraging because it suggests the responses come from a range experiences, making the findings even that more comprehensive and well-rounded. The faculties participating in the survey were Faculty of Economy and Finance, Faculty of Commerce, Faculty of Management, Faculty of Economic Informatics and Faculty of International Relations (as seen in Graph 2). Number of working students was 361 (48%) and there were 392 non-working students (52%), which also shown in Graph 2. All of the students were from the full-time studies studying in-site daily at the university (as seen in Graph 3). This last graph also shows which year of study the students participating in survey were currently in (72% from the 1st year of studies, 25% from the 2nd year 3% from the 3rd year and only one student from the 4th grade).

The questionnaires were handed out via a Google Docs form in both English and Slovak and majority of the students were from Slovakia, with a hand-full of students from both Ukraine and Russia. This was the second phase of such research and the period devoted for the data gathering was 3 months long (it started in the middle of September 2025 and lasted till the end of winter semester in the middle of December 2025). The survey response rate was somewhere around 98%, because they were given to the students in classes or within the examination period, so that we could gradually monitor if and how many students have already submitted the questionnaire.

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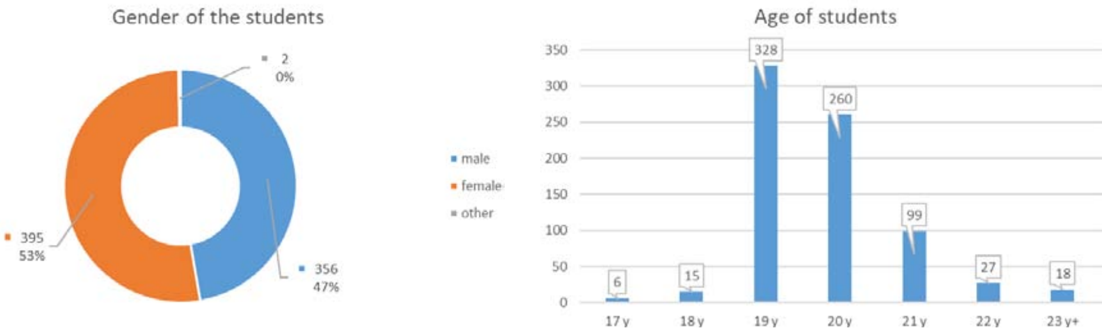

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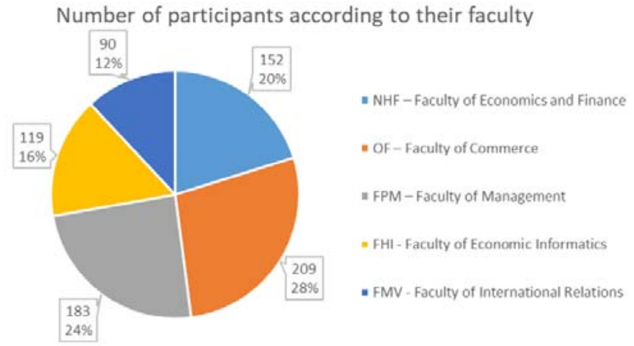

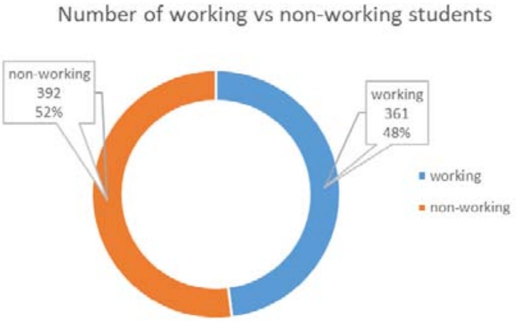

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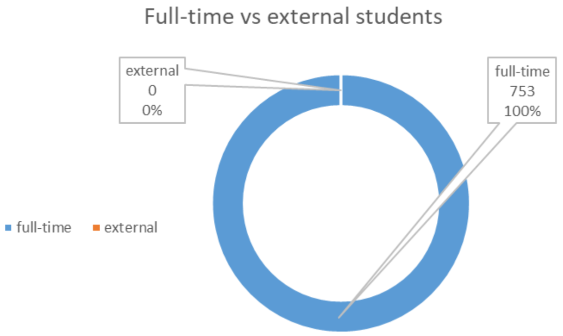
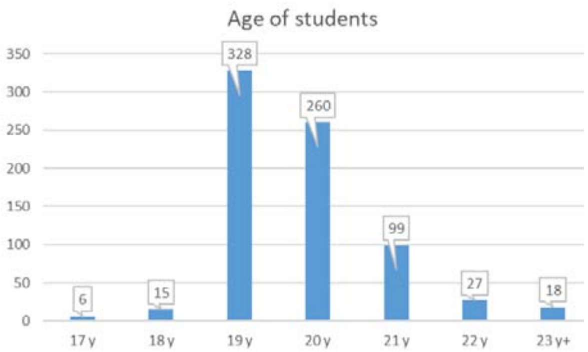
Graph 3 – Number of students according to the full-time vs external status and the year of study





Source: Own processing based on the results of the conducted survey

In order to assess challenges and opportunities, we asked the students to evaluate the most common challenges they encounter when assessing a graduate's soft skills for business negotiation. They were asked to select all that apply, which means that even more than one, none of them, or even all of them. Number of participants selecting the following options are shown in the brackets.

❖ SUBJECTIVITY AND LACK OF STANDARDIZATION
- ✓ Difficulty in objectively measuring soft skills *(369 participants)*
- ✓ Lack of consistent assessment criteria across different evaluators *(334 participants)*
- ✓ Reliance on subjective judgments and personal biases *(279 participants)*

❖ LIMITED REAL-WORLD EXPERIENCE
- ✓ Difficulty in assessing their ability to apply theoretical knowledge in real-world situations *(415 participants)*
- ✓ Graduates may lack practical experience in negotiation scenarios *(364 participants)*
- ✓ Challenges in simulating realistic negotiation environments *(227 participants)*

❖ CULTURAL AND COMMUNICATION DIFFERENCES
- ✓ Challenges in evaluating negotiation styles and approaches across different cultures *(385 participants)*
- ✓ Limited exposure to diverse perspectives and negotiation strategies *(304 participants)*
- ✓ Difficulty in assessing intercultural communication skills and adaptability *(298 participants)*

❖ SELF-PRESENTATION AND PERFORMANCE ANXIETY
- ✓ Graduates may struggle to demonstrate their true abilities in high-pressure assessment situations *(442 participants)*
- ✓ Impact of anxiety and stress on performance during assessments *(364 participants)*
- ✓ Potential for overconfidence or underconfidence to mask true skills *(322 participants)*

❖ ASSESSING EMOTIONAL INTELLIGENCE AND SELF-AWARENESS
- ✓ Difficulty in measuring intangible qualities like empathy, self-regulation, and social skills *(382 participants)*
- ✓ Limited tools and techniques for accurately assessing these skills *(322 participants)*
- ✓ Challenges in distinguishing between genuine and superficial displays of emotional intelligence *(298 participants)*

❖ BALANCING ACADEMIC PERFORMANCE AND PRACTICAL SKILLS
- ✓ Challenges in assessing the transferability of academic knowledge to practical negotiation situations *(363 participants)*
- ✓ Difficulty in determining the relative importance of academic achievements and soft skills *(344 participants)*
- ✓ Potential for overemphasis on academic qualifications and grades *(277 participants)*

❖ TIME CONSTRAINTS AND RESOURCE LIMITATIONS
- ✓ Resource constraints that may limit the use of advanced assessment tools and techniques *(328 participants)*
- ✓ Limited time available for comprehensive assessments *(319 participants)*
- ✓ Difficulty in balancing the need for thorough assessments with practical limitations *(312 participants)*

❖ EVOLVING NATURE OF BUSINESS NEGOTIATION
- ✓ Challenges in assessing adaptability to changing business environments and emerging technologies *(414 participants)*

- ✓ Difficulty in keeping up with the latest trends and best practices in negotiation *(305 participants)*
- ✓ Need for continuous updating of assessment criteria and methodologies *(265 participants)*

- ❖ ETHICAL CONSIDERATION AND BIAS
- ✓ Importance of ensuring fairness and objectivity in the assessment process *(388 participants)*
- ✓ Challenges in addressing ethical dilemmas and conflicts of interest in negotiation scenarios *(317 participants)*
- ✓ Potential for unconscious biases to influence assessment decisions *(300 participants)*

- ❖ DATA PRIVACY AND CONFIDENTIALITY
- ✓ Concerns about data privacy and confidentiality in collecting and analysing assessment data *(378 participants)*
- ✓ Challenges in balancing the need for accurate assessments with data protection regulations *(342 participants)*
- ✓ Importance of ensuring the ethical and responsible use of assessment data *(292 participants)*

Additionally, we asked the students about potential opportunities for educational institutions or training programmes better preparing graduates to develop and demonstrate these essential soft skills. They were asked to choose the most preferred one option or specify their own suggestion.

- ❖ REAL-WORLD SIMULATIONS: Incorporating more realistic simulations and role-playing exercises to mimic real-world negotiation scenarios.

- ❖ INTERDISCIPLINARY LEARNING: Emphasizing the importance of integrating soft skills into various courses and disciplines, rather than treating them as standalone subjects.

- ❖ MENTORSHIP AND COACHING: Providing programs to students to provide personalized guidance and feedback on soft skill development.

- ❖ COLLABORATIVE PROJECTS: Highlighting the value of group projects and team-based learning experiences to foster teamwork, communication, and problem-solving skills.

Finally, some students also managed to mention other specific soft skills that are often overlooked or undervalued in the context of business negotiation. In business negotiation, several soft skills often go unnoticed but can significantly influence outcomes. Cognitive abilities like curiosity, cognitive flexibility, and sceptical thinking allow negotiators to adapt quickly and explore creative solutions. Emotional and self-regulation skills such as patience under pressure, emotional containment, and moral clarity help maintain professionalism and integrity during tense moments. Interpersonal strengths like cultural sensitivity, storytelling, and impression management enhance connection and persuasion, while observational skills like microexpression recognition and meta-communication awareness provide insight beyond words. Finally, conflict-handling abilities such as constructive discontent and discretion empower negotiators to navigate disagreement wisely and maintain control of sensitive dynamics. Though often undervalued, these nuanced skills are critical for achieving sustainable and mutually beneficial agreements.

5 CONCLUSION

This study has highlighted the complex challenges associated with assessing and developing soft skills relevant to business negotiation among economics students. The findings indicate that while students strongly recognize the importance of soft skills for employability, significant obstacles persist in their evaluation and practical demonstration. Issues such as subjectivity, lack of standardized assessment criteria, limited real-world experience, cultural and communication differences, and difficulties in measuring emotional intelligence underscore the inherent complexity of soft skills assessment. These challenges reflect broader structural and methodological limitations within both educational and recruitment contexts.

At the same time, the research identifies substantial opportunities for higher education institutions to address these shortcomings through more innovative and practice-oriented approaches. Students clearly expressed a preference for learning environments that emphasize real-world simulations, interdisciplinary integration of soft skills, mentorship and coaching, and collaborative, team-based projects. Such methods not only enhance students' ability to apply theoretical knowledge in authentic negotiation scenarios but also support the development of adaptability, self-awareness, and intercultural competence. The identification of additional, often overlooked soft skills (such as cognitive flexibility, emotional containment, cultural sensitivity, and ethical judgment) further illustrates the evolving and nuanced nature of negotiation competence in contemporary business environments.

Overall, the findings underscore the need for a systematic and forward-looking transformation of economics education, in which soft skills are embedded as core learning outcomes rather than treated as supplementary competencies. By addressing both the challenges and opportunities identified in this study, universities can better align their curricula with labour market expectations and contribute to the development of well-rounded, resilient, and ethically grounded graduates. In this regard, the objectives of the KEGA project represent a meaningful step toward bridging the gap between academic preparation and professional practice, while also providing a foundation for future research into effective models of soft skills development and assessment.

This article was created as part of research projects of the Ministry of Education, Family, and Sports of the Slovak Republic KEGA 040EU-4/2024.

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BEYOND TECHNICAL KNOWLEDGE: SOFT SKILLS AND THE EMPLOYABILITY OF ECONOMICS STUDENTS (A SLOVAK STUDY – PART 4/4: FUTURE TRENDS AND EXPECTATIONS)

Sonia Krajčík Danišová

Abstract

This study examines the importance of soft skills in enhancing the employability of economics students in Slovakia. As labour market demands increasingly extend beyond technical expertise to include interpersonal competencies, higher education institutions face growing pressure to adapt their curricula. Based on a survey of economics students at a selected Slovak university, the research identifies key soft skills considered essential for future employment, notably communication, teamwork, adaptability, and critical thinking. The findings indicate a discrepancy between students' current level of soft skill development and employer expectations. The study concludes with recommendations for more effective integration of soft skills training into economics programmes, highlighting the importance of closer cooperation between academic institutions and the business sector.

Key words: *soft skills, economics students, employability, higher education, labour market, communication skills, curriculum development, graduate competencies, university-business cooperation*

1 INTRODUCTION

Negotiation extends beyond the mere exchange of words; it is a complex process that requires effective communication in both spoken and written forms. While written communication is often underestimated, it plays a crucial role in the preparation, documentation, and formalization of agreements. At the same time, soft skills are essential for successful negotiation in intercultural environments, where achieving mutual consensus depends on more than technical accuracy alone. Academic institutions such as the Bratislava University of Economics and Business emphasise the development of strong writing abilities alongside a solid foundation in soft skills to prepare students for complex negotiation scenarios. By integrating soft skills training into negotiation education, educators can bridge the gap between theory and practice, equipping students with clarity, critical thinking, and strategic insight. This paper examines the synergy between soft skills and negotiation and presents a framework for their joint development as a basis for further research within the current KEGA project, which is introduced in Chapter 2.

2 INTRODUCTION OF THE KEGA PROJECT Nr. 040EU-4/2024

Nowadays, most companies and businesses recognize that negotiation skills are essential for improving profitability and serve as key tools for conflict resolution at all levels within organizations. A lack of negotiation skills can lead to a significant decrease in work efficiency, loss of employees, and eventual profit losses. A clear and structured approach to negotiation has a significant impact on economic outcomes, meaning that businesses whose employees possess conflict resolution or negotiation skills have an advantage over those whose employees do not. Such businesses not only achieve better agreements for themselves but also develop and maintain profitable business relationships both within and outside the company.

However, the problem originates directly within the educational system. Several economists from practice (authors of professional publications) criticize current economic fields of study and MBA programs for failing to develop employability skills such as communication, teamwork, negotiation, and systematic leadership among their students. According to American economist Laura D'Andrea Tyson, who previously served as dean of prestigious schools like Berkeley Haas (1998–2001) and London Business School (2002–2006), "...skills development was largely a marginal element of MBA programs. Schools and educational institutions with an economic focus generally assumed that acquiring communication and negotiation skills was the responsibility of businesses and individuals. However, this assumption no longer holds true." She also noted that the increasing emphasis on developing soft skills, such as communication and negotiation, in MBA programs has replaced the earlier belief that these skills should be cultivated primarily by employers rather than educational institutions. [1]

Economists Bennis and O'Toole are similarly critical of various economics and MBA programs, arguing that they not only fail to provide useful skills but also do not prepare future leaders or instil norms of ethical behaviour in students. [3] Kemp and Seagraves identified the need for skills such as adaptability, communication, and teamwork, given the changing demands of employers. The demand for these so-called soft or transferable skills has increased due to the need for a more flexible and adaptable workforce in today’s dynamic business environment. [2]

Economists Carnevale, Gainer, Meltzer, and Eunson have pointed out that negotiation and conflict resolution skills are essential for students’ successful entry into practice. [4][5] According to economists Lax, Sebenius, and Mintzberg, these skills are also crucial for management effectiveness in general. [6][7] Moreover, in 2021, extensive research was conducted by SAAVŠ, aimed at mapping the skills of Slovak university students. The results revealed that "students develop transferable skills only to a limited extent, despite these being key for employers across sectors. For example, the ability to communicate professionally in English or another global language." Proficiency in foreign languages is a crucial requirement for university graduates, which is further confirmed by an analysis of the Profesia.sk job portal, where English is the most common requirement. The urgent need to fundamentally overhaul the curriculum for MBA programmes, as well as the specialized course *Business Negotiations*, taught at institutions such as the University of Economics in Bratislava, is therefore inevitable.

This project represents comprehensive research in cooperation with domestic and international companies operating in Slovakia, from which original and practically relevant results are expected. The goal of our KEGA project no. 040EU-4/2024 is to restructure and implement a negotiation course in English, which, unlike the current *Negotiations in English* course, will be specifically designed to enhance the knowledge and skills of students from all seven faculties of the University of Economics in Bratislava in the area of business negotiation. The systematic development of students' negotiation skills is expected not only to improve their employability but also to increase their satisfaction with the course and help meet employers’ expectations in this area. We anticipate that this research will also assist in designing future courses aimed at improving students' employability. Additionally, the project should contribute to the literature on the professional training of economics students and address the lack of research dealing with the development of complex interpersonal skills, such as negotiation.

3 IMPORTANCE OF SOFT SKILLS DEVELOPMENT AT UNIVERSITIES AND IN BUSINESS PRACTICE

The set of 17 soft skills identified in this study represents a comprehensive and multidimensional competency framework essential for effective business negotiations and broader professional interactions. These competencies are grouped into four key domains: communication skills, interpersonal skills, adaptability and resilience, and emotional intelligence. Together, they capture the human-centred qualities that complement technical knowledge and professional expertise in the contemporary business environment.

The first domain, communication skills, encompasses Active Listening, Effective Communication, and Persuasion. These competencies form the foundation of the negotiation process by facilitating constructive dialogue, clear expression of ideas, and mutual understanding. Active Listening enables negotiators to remain fully engaged and responsive, thereby supporting trust-building and the identification of underlying interests. Effective Communication includes both oral and written forms, ensuring clarity, consistency, and professionalism. Although Persuasion was rated as less critical by students, it remains relevant for influencing negotiation outcomes through structured arguments and strategic messaging.

The second domain, interpersonal skills, includes Empathy, Relationship Building, Teamwork, Conflict Resolution, Problem-Solving, Critical Thinking, and Decision-Making. These interconnected skills support the creation of collaborative, solution-focused relationships. Empathy allows individuals to recognize and interpret the emotions and viewpoints of others, while Relationship Building and Teamwork encourage cooperation and shared objectives. Conflict Resolution is vital for addressing disagreements constructively, whereas Problem-Solving and Critical Thinking enable the identification of core issues, evaluation of alternatives, and development of effective responses. Decision-Making integrates these competencies by guiding individuals toward well-reasoned and evidence-based choices.

The third domain, adaptability and resilience, comprises Adaptability, Resilience, and Flexibility – competencies that are particularly important in uncertain, changing, and high-pressure negotiation contexts. Adaptability refers to the ability to modify strategies and behaviours in response to new circumstances or information. Resilience reflects the capacity to recover from challenges and setbacks, while Flexibility highlights openness to alternative perspectives and a willingness to revise plans when required. Together, these skills help negotiators maintain performance and composure in dynamic environments.

The final domain, emotional intelligence, includes Self-Awareness, Self-Regulation, Social Awareness, and Relationship Management. These competencies relate to the recognition, understanding, and management of emotions in oneself and others. Self-Awareness serves as a core element by enabling individuals to identify emotional triggers and behavioural patterns. Self-Regulation supports emotional control and appropriate reactions, while Social Awareness enhances sensitivity to social cues and interpersonal dynamics. Relationship Management focuses on sustaining constructive and respectful professional relationships, which is particularly important in long-term cooperation.

In conclusion, the identified 17 soft skills form a holistic framework for the personal and social competencies required for successful business negotiation. The emphasis placed by students of the Bratislava University of Economics and Business on communication and critical thinking, alongside their recognition of interpersonal and emotional skills, highlights the complex and multidimensional nature of negotiation effectiveness. As business environments continue to evolve, the systematic integration of these soft skills into educational and training programmes will be crucial for preparing future professionals to manage complex human interactions with confidence, empathy, and strategic awareness.

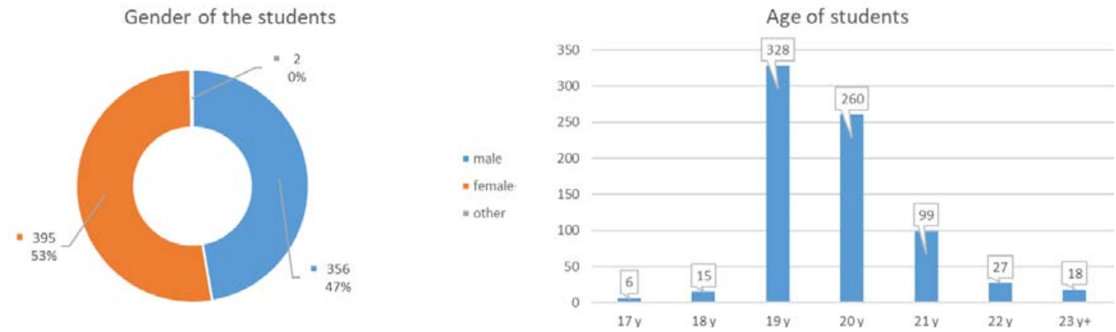
4 QUESTIONNAIRE RESULTS ON IMPORTANCE OF SOFT SKILLS AMONG STUDENTS OF BRATISLAVA UNIVERSITY OF ECONOMICS AND BUSINESS

The research was conducted via a structured questionnaire given to as many respondents as possible from the Bratislava University of Economics and Business in Slovakia (formerly known as University of Economics in Bratislava). The aim was to map what the economics students see as crucial when it comes to social skills necessary to have in practical level of work life that some of them already are actively experiencing.

The diversity of both age groups and genders (as seen on Graph 1) is encouraging because it suggests the responses come from a range experiences, making the findings even that more comprehensive and well-rounded. The faculties participating in the survey were Faculty of Economy and Finance, Faculty of Commerce, Faculty of Management, Faculty of Economic Informatics and Faculty of International Relations (as seen in Graph 2). Number of working students was 361 (48%) and there were 392 non-working students (52%), which also shown in Graph 2. All of the students were from the full-time studies studying in-site daily at the university (as seen in Graph 3). This last graph also shows which year of study the students participating in survey were currently in (72% from the 1st year of studies, 25% from the 2nd year 3% from the 3rd year and only one student from the 4th grade).

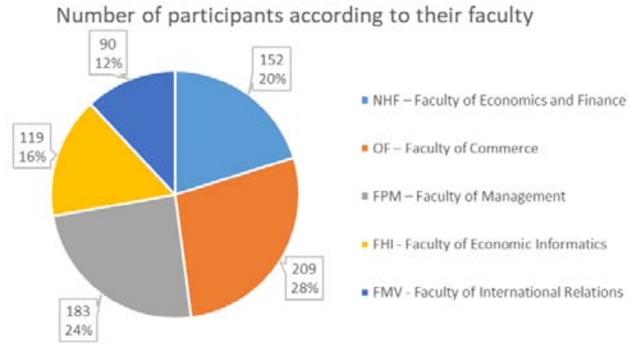
The questionnaires were handed out via a Google Docs form in both English and Slovak and majority of the students were from Slovakia, with a hand-full of students from both Ukraine and Russia. This was the second phase of such research and the period devoted for the data gathering was 3 months long (it started in the middle of September 2025 and lasted till the end of winter semester in the middle of December 2025). The survey response rate was somewhere around 98%, because they were given to the students in classes or within the examination period, so that we could gradually monitor if and how many students have already submitted the questionnaire.

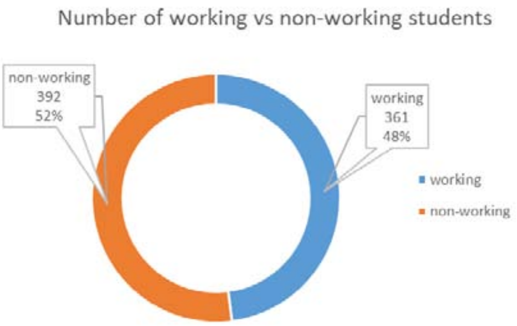
Graph 1 – Gender and age group of 753 survey respondents



Source: Own processing based on the results of the conducted survey

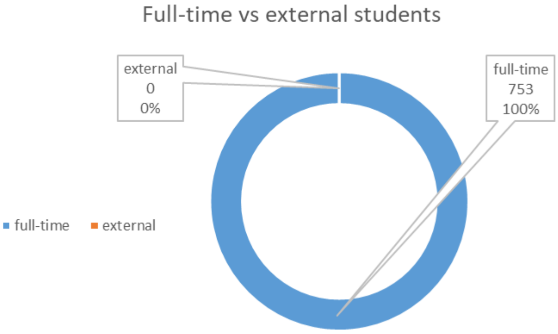
Graph 2 – Number of participants according to their faculty and their work-related status

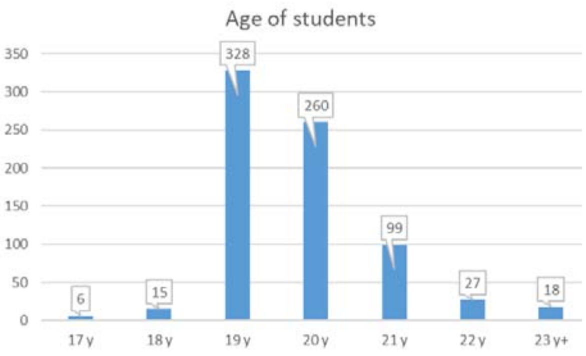




Source: Own processing based on the results of the conducted survey

Graph 3 – Number of students according to the full-time vs external status and the year of study





Source: Own processing based on the results of the conducted survey

Soft skills can be categorized into several sub-categories. For the purpose of clarification of these soft skill in our questionnaire we used the following categorization of the following 17 soft skills:

❖ **COMMUNICATION SKILLS**

1. Active Listening: The ability to pay full attention, understand, and respond thoughtfully to others.
2. Effective Communication: The ability to convey ideas, thoughts, and information clearly and concisely, both verbally and in writing.
3. Persuasion: The ability to influence others' beliefs, attitudes, or behaviours through effective communication.

❖ **INTERPERSONAL SKILLS**

4. Empathy: The ability to understand and share the feelings of others.
5. Relationship Building: The ability to establish and maintain positive relationships with others.
6. Teamwork: The ability to work effectively with others to achieve a common goal.
7. Conflict Resolution: The ability to manage and resolve conflicts peacefully.
8. Problem-Solving: The ability to identify and solve problems effectively.
9. Critical Thinking: The ability to analyse information, evaluate arguments, and draw sound conclusions.
10. Decision-Making: The ability to make informed and reasoned decisions.

❖ **ADAPTABILITY AND RESILIENCE**

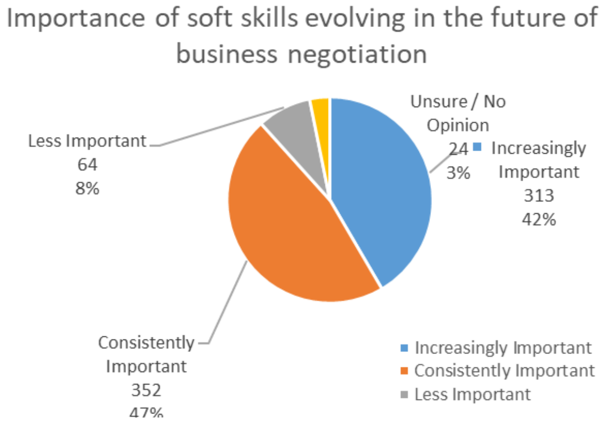
11. Adaptability: The ability to adjust to new situations and changes.
12. Resilience: The ability to bounce back from setbacks and challenges.
13. Flexibility: The ability to be open to new ideas and approaches.

❖ **EMOTIONAL INTELLIGENCE**

14. Self-Awareness: The ability to understand one's own emotions and how they affect behaviour.
15. Self-Regulation: The ability to manage one's own emotions and impulses.
16. Social Awareness: The ability to understand the emotions and perspectives of others.
17. Relationship Management: The ability to manage relationships effectively.

Regarding the future trends and expectations, this section was the most challenging to evaluate, since out of four questions there were two open questions and only a hand-full of students bothered to give any answer whatsoever. Firstly, we asked the students, if they can envision the importance of soft skills evolving in the future of business negotiation. We asked to opt for one of the following options, as shown in both Table 1 and Graph 4.
Out of 753 participants, almost 42% believe, that it will be increasingly important, as they believe soft skills will become essential for successful negotiations as interpersonal dynamics and collaboration grow in significance. Almost 47% believe, that it will be consistently important, as they think soft skills will maintain their current level of importance, remaining a fundamental aspect of effective negotiation practices. Only 8,5% of the participants believe, that it will be less important, as they foresee a shift towards more data-driven and technical negotiation methods, making soft skills less crucial. Only 3,2% of the participants were unsure about this vision, which means that nobody had a problem having a clear perspective on how the importance of soft skills in business negotiation will evolve.

Graph 4 – Importance of soft skills evolving in the future of business negotiation



Source: Own processing based on the results of the conducted survey

Table 1 – Importance of soft skills evolving in the future of business negotiation

Increasingly Important	313
Consistently Important	352
Less Important	64
Unsure / No Opinion	24

Source: Own processing based on the results of the conducted survey

According to our participants, the following new or emerging soft skills they believe will be particularly valuable in future negotiation contexts. Supposedly, successful negotiation won't just depend on being persuasive, it will require a deeper, more human approach. Emotional intelligence will matter more than ever, especially the ability to sense and respond to how others feel, even through a screen. With people from different cultures and backgrounds at the table, being open-minded and culturally aware will be key. Negotiators will also need to feel at ease communicating clearly and thoughtfully in digital spaces, where much of the work now happens. As situations change quickly, staying flexible and seeing things from different angles will help keep conversations moving forward. People will expect honesty and fairness, so the ability to influence ethically and build trust through real, meaningful stories will become a powerful tool. And as the world moves away from win-lose thinking, negotiators who focus on cooperation and creating value together will have an edge. Even with the rise of AI and data tools, the most effective negotiators will be those who use technology wisely, but never lose their human touch.

Regarding any specific areas where the participants would like to see more emphasis placed on soft skill development in business education, they were asked to choose the most preferred area, however, they could choose more than one. The number of participants who chose the particular option is shown in the brackets.

- ❖ Emotional Intelligence – focus should be on developing skills like empathy, self-awareness, and social skills, which are crucial for effective negotiation and relationship-building *(386 participants).*
- ❖ Critical Thinking and Problem-Solving – focus should be on developing analytical skills and the ability to identify and solve complex problems, often in a collaborative setting *(339 participants).*
- ❖ Active Listening – active listening skills should be emphasized, as they are essential for understanding and responding to the needs of others *(258 participants).*

❖ Intercultural Communication – there is a need for training in understanding and navigating diverse cultural contexts, particularly in global business environments *(252 participants).*

5 CONCLUSION

This study has demonstrated that soft skills will continue to play a central and enduring role in the employability of economics graduates, particularly in the domain of business negotiation. The findings indicate a strong consensus among students that the importance of soft skills is unlikely to diminish in the future; on the contrary, most respondents anticipate that these competencies will remain consistently important or become even more critical as business environments grow increasingly complex, digitalised, and intercultural. This perception reflects an awareness that effective negotiation extends beyond data-driven analysis and technical expertise, relying fundamentally on human interaction, mutual understanding, and trust-building.

The identification of emerging and future-oriented soft skills further underscores the evolving nature of negotiation competence. Students highlighted emotional intelligence, ethical influence, intercultural sensitivity, digital communication skills, adaptability, and cooperative value-creation as key competencies for future negotiators. These expectations suggest a shift away from traditional competitive negotiation models toward more collaborative, relationship-oriented approaches, even in technologically advanced contexts. Despite the growing use of artificial intelligence and analytical tools, the results emphasise that the human dimension of negotiation (like for instance empathy, ethical judgement, and narrative communication) will remain irreplaceable.

From an educational perspective, the findings point to clear priorities for curriculum development in economics and business programmes. Greater emphasis should be placed on emotional intelligence, critical thinking, active listening, and intercultural communication, as these areas were most frequently identified by students as requiring further development. The results support the strategic objectives of the KEGA project by providing empirical justification for systematically embedding soft skills training into academic curricula. Ultimately, aligning educational practices with anticipated labour market trends is essential for preparing graduates who are not only technically proficient but also socially competent, adaptable, and capable of navigating future negotiation challenges with professionalism and ethical awareness.

This article was created as part of research projects of the Ministry of Education, Family, and Sports of the Slovak Republic KEGA 040EU-4/2024.

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LINKING SOCIAL MEDIA METRICS AND CONSUMER PURCHASING BEHAVIOR

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Abstract

Digitalization has fundamentally transformed marketing communication, shifting interactions between brands and consumers into the environment of social networks. The theoretical part of this paper examines social networks as a key instrument of B2C communication, analyzing their impact on purchase decision-making and the role of appeals within communication strategies. In the empirical section, the research focuses on analyzing the communication of the retail chain Billa Slovakia on the social network Facebook; the subject of the investigation consists of static posts from the pre-Christmas campaign published from November 1 to November 30, 2025. The objective of the analysis is to identify the nature of the appeals utilized in these posts and to determine the extent of their correlation with reach, user engagement, and the overall performance of communication during the pre-Christmas period. The research concentrates on three primary areas: post typology, dominant appeals, and their relationship to user reactions.

Keywords: *Facebook, social network, marketing communication, appeals, metrics, consumer behavior*

1 INTRODUCTION

Digital media facilitate two-way communication, immediate feedback, precise measurement of user behavior, and the creation of personalized content. Murár and Piatrov (2023) posit that social networks play a particularly crucial role in digital marketing, as they enable brands to maintain direct contact with their target audience, build relationships, and acquire extensive data regarding user behavior. According to these authors, the principle of social feedback and the ability of users to actively participate in communication represent the most fundamental shift compared to traditional media.

The terms "social media" and "social networks" are frequently conflated, yet they are not synonymous. Murár and Piatrov (2023) explain that social media represent a broad category of digital platforms enabling content creation and sharing, whereas social networks constitute a subset thereof, predicated on interconnecting users within relational structures. Consequently, social networks are the most relevant from a marketing perspective, as they combine content creation with interaction among users. Tuten and Solomon (2021) note that social media have fundamentally transformed the communication model, as users no longer act as passive recipients of information but as active co-creators of content who generate, share, and modify digital posts.

Social networks have become the main space in which the interaction between the brand and consumers takes place. Tuten and Solomon (2021) report that digital platforms make it possible to influence the different stages of purchasing decisions, with multimedia content (images, videos, stories, reels) playing a vital role in capturing users' attention. According to Appel et al. (2020), social media influences the entire purchasing process, from the need awareness phase to the sharing of post-purchase experiences.

According to the Digital 2024, Deep Dive: Social Media Is Still Growing study (DataReportal, 2024), Facebook remains one of the most extensive and demographically diverse social platforms, with the 25–34 age group making up the largest portion of its advertising audience. The data confirms that despite the growth of newer platforms, Facebook maintains a stable and active user base across age categories, making it a suitable platform for both marketing targeting and representative user behavior research. Moreover, the number of social media user profiles worldwide has exceeded the 5 billion mark, confirming the massive global use of these platforms. In this context, Facebook has a strong position as one of the most followed and valuable platforms for B2C communication, as it combines high reach, broad demographics, and comprehensive metric measurement capabilities. According to the Digital 2024 Slovakia study, social networks represent an important communication space for the Slovak population, while Facebook maintains its position as the most extensive and demographically diverse platform. The data confirms that social networks are an integral part of users' everyday behaviour and influence their information preferences and purchasing decisions. Facebook thus creates a suitable environment for B2C marketing, testing appeals and analyzing metrics on which consumer reactions can be observed in real time.

Research by Al Akayleh (2021) confirms that social media advertising has a significant impact on consumer decision-making, with users often making a purchase after viewing an online ad. At the same time, the study shows that the effectiveness of social media as a marketing tool is determined by demographic factors, especially age, gender and cultural context, which significantly change the response rate to advertising. Younger adults are the most influential, spending more time on social media and responding better to online stimuli, while culturally tuned content increases trust and likelihood of purchase. Therefore, the authors emphasize that advertising on social networks must not only be visually and content-wise, but also take into account the social and demographic specifics of the target group.

Jha and Verma (2024) investigated how users of different social networks react differently to the same content, which fundamentally affects communication and performance metrics. While informative and thematically relevant posts have higher engagement on Twitter, emotional and positively tuned content thrives on Facebook. However, companies often do not reflect these differences and publish identical content across platforms, reducing the effectiveness of communication. The findings confirm that successful B2C communication requires platform-specific content creation and appeals to effectively influence consumer behavior and decision-making.

Solomon (2020) emphasizes that consumer purchasing decisions are a complex psychological-social process influenced by perceptions, emotions, motives and experiences, while the digital environment makes this process even faster and more dynamic. In the online environment, the consumer reacts not only to information, but also to emotional stimuli that shape their attitudes, engagement and subsequent shopping behavior. This understanding is also crucial for analyzing the effectiveness of marketing communication on social networks, where interaction metrics reflect the emotional and cognitive responses of the audience.

To comprehensively evaluate the performance of social media communications, it is essential to distinguish between different types of metrics. Trunfio and Rossi (2021) define social-media engagement as a multidimensional construct, identifying metrics quantitative (e.g., number of reactions, shares, comments), normalized indices, and qualitative indicators that capture the depth of user interaction. The results of Drivasa et al. (2022) show that specific actions of site administrators, such as post type, frequency, publishing time, or multimedia formats, significantly affect the level of user engagement. These perspectives point out that social media metrics should be understood not only as simple numbers, likes or shares, but as comprehensive indicators that allow for a better understanding of audience behavior and optimization of communication in the B2C segment. Murár and Piatrov (2023) point out that the choice of metrics should always be related to the goal of the campaign, other indicators are relevant in building awareness, others in trying to drive sales.

In her study, Liu (2025) highlights that emotional cues significantly boost user engagement while increasing their purchase intent, as the emotional response mediates the effectiveness of marketing content. Research by Tellis et al. (2019) confirms that the most effective marketing communication in the B2C segment combines both approaches, emotional appeals attract attention, while informative appeals support the purchase decision.

According to Kollárová and Kraľovičová (2022), emotional appeals focus on evoking feelings more than conveying information and often use non-verbal elements that stimulate the imagination and emotional processing of the advertising message. The basic types of emotional appeals include humor, eroticism, and fear, each activating different responses and attention mechanisms. On the contrary, informative appeals focus on rational data about the product, such as price, quality or availability, and aim to support the consumer's decision-making based on facts.

2 METHODOLOGY

The main objective of our research was to map the structure of communication elements and appeals in the posts of the Billa Slovakia brand and to evaluate their relationship to the resulting metrics (reach, engagement, interactions).

Milestones:

- analyze the most common types of communication in posts (visual, textual content, CTA elements) and their representation,
- identify dominant appeals (emotional vs. informational) and explore their relationship to user engagement (likes, comments, shares),
- find out what communication and emotional trends are appearing within the pre-Christmas campaign of Billa Slovakia on Facebook.

To process the literature review, we used the methods of research, analysis and synthesis of domestic and foreign scientific and professional sources focused on digital marketing, social networks, performance metrics and emotional appeals in marketing communication.

The empirical part of the paper focused on the analysis of the communication of the Billa Slovakia food chain on the Facebook social network during the pre-Christmas campaign. The subject of the examination were static posts (34) published between 1 November and 30 November 2025, which represent the main communication channel of the brand in the period under review. The aim of the analysis was to identify what informational and emotional appeals appear most often in these posts and to what extent these appeals are associated with reach, user engagement and potential conversion in the context of pre-Christmas communication.

The research was carried out through qualitative and quantitative content analysis. The data was obtained through the Agorapulse tool, which enables monitoring of communication on social networks and provides metrics necessary for evaluating the performance of posts (reach, engagement, reactions, comments, shares).

In the first phase, a database of all published posts was collected through the Agorapulse tool, from which static posts of the Photos category were selected. Quantitative segmentation of a total of 34 posts identified 9 of those with the theme of Christmas. These formed an analytical sample for the subsequent qualitative analysis of the appeals.

In the second phase, a qualitative content analysis focused on three dimensions was applied:

- one of voice (style and emotional tonality of communication),
- type of appeal (emotional, informational, combined),
- dominant emotional trait (e.g., family, nostalgia, thrift, urgency).

Each post was assigned an identifier (ID) and an appeal category according to predefined criteria. In the case of emotional appeals, their symbolic meaning and cultural resonance in the Christmas period were analysed, in the case of information appeals, the informational value and transactional orientation were evaluated. Combined appeals were assessed as a link between emotional and informational elements.

In the third phase, the performance metrics of the posts were analyzed, especially reach, interactions (likes, comments, shares) and other indicators available through Agorapulse. The results of the qualitative categorization of appeals were then compared with performance metrics to identify relationships between the type of appeal and the level of user engagement.

3 RESULTS

In this chapter, we will focus on the presentation of empirical findings from the examination of communication on the Facebook social network of the food chain Billa Slovakia. The subject of the study are static posts from the Christmas campaign period, which were published between November 1 and November 30, 2025. The official profile of Billa Slovakia can be found on https://www.facebook.com/BillaSlovensko and according to Figure 1 we can claim that it was created on October 11, 2012.

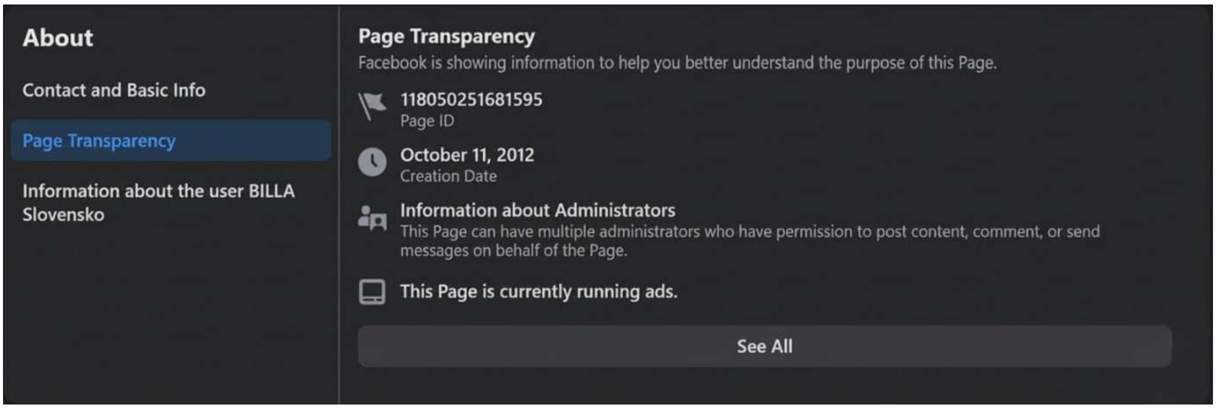


Figure 1 Page transparency and profile creation date

Source: Facebook (2025)

Obrázok 2, Social profile nám uvádza výkonnostné metriky sociálnej stránky potravinového reťazca Billa Slovensko na Facebooku. V texte sú uvedené dáta za sledované obdobie od 1.11.2025 do 30.11.2025.

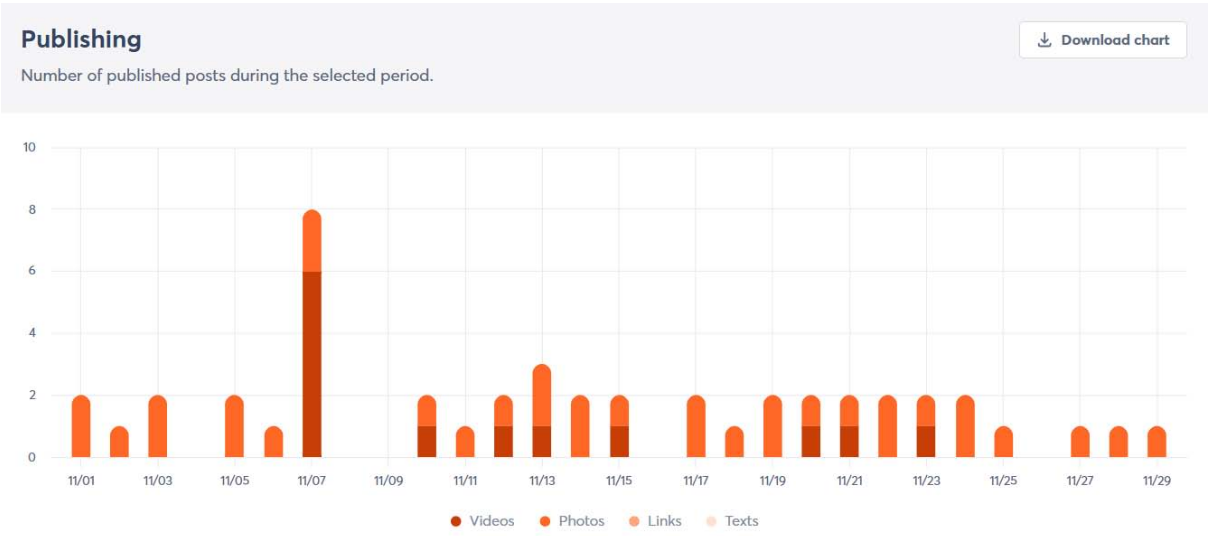
Number of followers 148,404, number of posts 47, total engagement 11,341 and average engagement per post 241.3. The interpretation shows that the profile has a fairly stable follower base, which indicates a wide reach of campaigns and a high potential for reaching target segments. On the other hand, the number of posts is relatively low due to the large follower base, which may indicate less frequent but potentially highly targeted communication. Total engagement of 11,341 and average engagement per post of 241.3 show that posts generate an average level of interaction that could correlate with campaign visibility and reach.

Social profile	Followers	Posts	Total engagement	Avg. engagement on post
BILLA Slovensko	148,404	47	11,341	241.3

Figure 2 Social profile of BILLA Slovakia

Source: Agorapulse (2025)

Figure 3 shows a graph of posting on Facebook for Billa Slovakia during the selected period. The graph shows us the number of published content in the horizontal axis in the interval from November 1 to November 30, 2025, while the vertical axis indicates the number of posts published for a given day. Each post category is color-coded. Videos (dark orange), Photos (bright orange), with Links and Texts only shown in legends. The row below shows the summary data, Videos 13, Photos 34, Links 0, Texts 0, Total posts 47 and Variation +104.3%. These data indicate that photos and videos have seen the most activity, with the volume of posts dominating in the selected period on November 7, 2025, when there was a significant increase in the number of Videos and Photos posts.



	Videos	Photos	Links	Texts	Total posts	Variation
BILLA Slovensko	13	34	0	0	47	+104.3%

Figure 3 Number of published post during the selected period

Source: Agorapulse (2025)

Segmentation and qualitative analysis of static posts: Due to the set research questions and the dominance of visual formats in the monitored dataset, for the next part of the paper we will focus exclusively on the Photos category, i.e. static posts that directly communicate the Christmas theme. Quantitative segmentation of the total number of 34 static contributions identified 9 contributions that explicitly thematize Christmas and which will be the focus of the subsequent qualitative analysis in detail. We will primarily focus on the analysis of the tone of voice and specific appeals relevant to the Christmas season. The aim is to decipher the ways in which Billa Slovakia constructs its communication strategy and to define significant emotional traits and narratives that are used to activate interaction and build a relationship with the consumer in the context of pre-Christmas consumption.

Qualitative analysis of informational and emotional appeals: The analysis primarily focuses on three dimensions of post content: tone of voice, type of appeal (informational vs. emotional) and strong emotional cues in order to understand the mechanisms by which a brand builds engagement and positions itself in the context of Christmas. The set of nine analyzed contributions was segmented based on the dominant appeal into three main categories: Emotional Appeals (E), Information Appeals (I) and Combined (K).

The following table summarizes the results of this classification, along with the identification of the main tone of voice and the primary emotional characteristic. All analyzed contributions are listed in Table 1 with an associated identifier (ID) to ensure transparency of the analysis. For the purposes of further identification in the text, the individual contributions were assigned the code designation V01 to V09, while the complete list of sources is available in the final part of the thesis (List of contributions).

Table 1 Distribution of appeals

ID	Date	Apel	Main emotional sign	Dominant Tone of Voice
V01	3. 11.	Emotional (E)	Family harmony / Relaxation	Empathetic / Warm
V02	4. 11.	Informational (I)	Savings / Reason	Informational / Practical
V03	10. 11.	Combined (K)	Culinary delight / Tradition	Instructive / Pleasant
V04	11. 11.	Emotional (E)	Expectation / Magic	Evocative / Festive
V05	15. 11.	Informational (I)	Availability / Benefits	Direct / Transactional
V06	17. 11.	Emotional (E)	Donation / Kindness	Altruistic / Inspiring
V07	20. 11.	Combined (K)	Readiness / Convenience	Service / Useful
V08	25. 11.	Informational (I)	Special offer / Urgency	Business / Urgent
V09	28. 11.	Emotional (E)	Nostalgia / Memories	Poetic / Sentimental

Source: Own processing (2025)

Analysis of emotional appeals (E): Out of a total of 9 posts, 44% were identified that use a dominant emotional appeal. These posts are characterized by visuals and texts that target internalized Christmas values and feelings. Themes and tone: A tone of voice that is warm, empathetic, and evocative (V01, V04, V06, V09) predominates. Communication focuses on the essence of the holiday, not on the product itself. Family Harmony and Well-Being (V01): These posts often visualize idyllic family scenes, implicitly associating the Billa brand with a sense of security and home. Magic and Expectation (V04): The narrative of mystery and joyful anticipation is used, which is a strong cultural signal in the run-up to Christmas. Altruism (V06): The communication focuses on the aspect of giving and charity, demonstrating the brand's social responsibility and spreading positive values.

Relationship to engagement: Emotional posts generally have a higher potential for viral dissemination (shares) and comments because they evoke personal memories and strong associations, thus increasing sentiment and engagement rates compared to purely informational content. Analysis of informative appeals (I): When examining informative appeals, we found that 33% (three posts) are conceived as rational, with a primary focus on informational value and transactional goals (conversion).

Themes and tone: Tone of voice is primarily informational, direct and business (V02, V05, V08). Savings and benefits (V02, V05): The main feature is communication about discounts, special offers and benefits for the wallet, which is a key motivating factor in pre-Christmas shopping (characterized by a high level of spending). Urgency (V08): Use limited-time offers and urgent tone to increase immediate conversion and faster consumer decision-making.

Relationship to engagement: Informational appeals typically generate high save and direct click-through (CTA) rates, although they may have a lower impact on organic shares and comments. Their main success metric is conversion, not emotional engagement. Analysis of combined appeals (K): Combined appeals make up 22% (two contributions) and represent a hybrid approach, combining emotional and rational elements. Themes and tone: Tone of voice is instructive and serviceable (V03, V07), trying to connect emotion with practical utility. Culinary Pleasure and Tradition (V03): Although the paper presents the product, it is in the context of the traditional preparation of Christmas dishes, thus combining the joy of eating (emotion) with the purchase of ingredients (rationality). Preparedness and convenience (V07): It focuses on facilitating the pre-Christmas chaos, where a sense of comfort (emotion) is achieved thanks to the offer of useful products and services (rationality). Trend detected: Billa Slovakia uses this category to mitigate the purely commercial perception of the brand, presenting itself as a useful partner in the implementation of Christmas traditions.

Summary of trends and Tone of Voice: The analysis shows that Billa Slovakia's communication strategy on Facebook during the Christmas campaign (November 2025) is balanced, with a slight predominance of emotional appeals (44%). This emotional-rational mix is in line with the best practices of FMCG marketing, where it is essential not only to build a long-term emotional bond, but also to stimulate immediate sales. The dominant tone of voice is contextually adaptive, changing from empathetic and evocative (for emotional topics) to informational and transactional (for rational topics), effectively addressing target segments at different stages of shopping behavior during the pre-Christmas period.

4 DISCUSSION

Based on the results of the analysis of Billa Slovensko's communication on the Facebook social network during the pre-Christmas campaign, we can conclude that the brand has a stable and extensive community of followers, which confirms its ability to reach a wide audience without the need for intermediaries or a large media budget. A high number of followers at a relatively lower posting frequency indicates that the brand works with thoughtful and guided communication, which, even with a smaller number of posts, can generate an average level of interaction and maintain user attention. Within the discussion, we focus on the interpretation of identified rational and emotional appeals and their relationship to performance metrics (reach, engagement, interactions). As strong emotional and informational appeals enter consumer decision-making in the run-up to Christmas, the analysis showed that the combination of both appeals plays a strategic role in user engagement.

Emotional appeals, which made up the most significant share (44%), worked with narratives of family, well-being, memories, giving and anticipation of Christmas. These posts target culturally rooted meanings and values, reinforcing the user's emotional connection to the brand. In the discussion, it is important to point out that it was these posts that had the greatest potential to generate comments and shares, as they activated personal associations and emotional connection with the holiday season. Information appeals accounted for a third of the analyzed contributions and were focused on savings, convenience, special offers and urgency. Their goal was not to elicit a sentimental reaction, but to encourage immediate decision and conversion. The fact that rational posts generated fewer shares, but a higher share of clicks, is in line with the typical behavior of users in the fast-moving segment, emotional content hits, informational content sells. In the discussion, we can emphasize that information-oriented posts form the basis of transactional communication before Christmas. Combined appeals (22%) represent a strategic center: they combined pleasant, festive emotions with practical recommendations, recipes, tips and simplification of preparations. This type of content is especially important in the discussion because it provides a bridge between emotional narratives and transactional goals of the brand, uses a family or traditional atmosphere, but at the same time directs the purchase of specific products or a visit to the store. An analysis of the tone of voice confirmed that Billa Slovakia purposefully adapts the style of communication to the content: emotionally tuned contributions work with an empathetic, warm or poetic tone, while informational appeals are direct, informative and urgent. Such variability of tone of voice allows the brand to address different needs of the audience at different stages of the buying process.

5 CONCLUSION

The main goal of our research was to identify what informational and emotional appeals are most often used in Billa Slovensko's posts on Facebook and to what extent these appeals are associated with reach, engagement and possible conversion in the context of the pre-Christmas period. The results showed that brand communications worked with a balanced mix of emotional, informational, and combined appeals, with emotionally tuned posts showing higher engagement rates and stronger potential for building a relationship with the consumer. Information appeals were more effective in encouraging instant decision and conversions, especially in relation to promotional offers and discounts. At the same time, the pre-Christmas period has proven to be a suitable space to use strong value and cultural motifs that strengthen the positive sentiment of the brand and increase user engagement. We anticipate that the results of our research can be beneficial for academia and practice in the retail segment, especially for brands that want to work with appeals in a targeted manner and optimize their communication on social networks in seasonal campaigns.

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BUSINESS ENVIRONMENT CONSTRAINTS AND FIRM GROWTH OBSTACLES: EVIDENCE FROM SLOVAK ENTERPRISES

Bonface Kirimi

Abstract

This study examines business environment constraints and their implications for firm growth in Slovakia using firm-level data from the 2023 WBES. We apply descriptive statistics and correlation analysis to identify and rank the most serious obstacles facing companies. We further apply Principal Component Analysis to reveal hidden dimensions of business environment constraints and to create a composite Business Environment Constraint Index (BECI). The results indicate that inadequate finance, shortage of skilled labor, and weak institutions are the three major factors limiting business operations in Slovakia. Governance-related issues such as corruption, judicial inefficiency, crime, and political instability emerge as a dominant underlying constraint. The study contributes new micro-level evidence for Slovakia, a relatively under-researched transition economy. By identifying heterogeneous firm profiles, the analysis underscores the need for targeted rather than uniform policy interventions. Overall, the study provides empirical insights to support reforms that are aimed at improving competitiveness and firm growth in Slovakia.

Keywords: *Business environment, Firm growth, World Bank Enterprise Survey, Principal Component Analysis, SMEs, Business Environment Constraint Index (BECI).*

1. INTRODUCTION

A stable and predictable business environment is typically considered, in the long term, a crucial factor for a company's performance, competitiveness, and growth. It has been found that businesses will prosper in environments where there is regulatory certainty, good and quick public services, little corruption, excellent infrastructure, and a labor market that is not too rigid. These all put the companies in a position of picking up larger profits, being more inventive, and having better connectivity with global supply chains (Djankov et al., 2002; Hallward-Driemeier & Pritchett, 2015). In contrast, stringent regulations, weak institutions, and inadequate infrastructure have a cost that is borne by companies, and in the process, SMEs are at the receiving end to a large extent as they are usually the least equipped to fight off compliance and transaction costs (Ayyagari, Demirgüç-Kunt & Maksimovic, 2008). In the case of developing countries or those that have recently transitioned, the challenges of complications from centralized administration, changing regulatory landscapes, and uneven development of the institutions can be very tough (Commander & Svejnar, 2011).

Slovakia, in this regard, is a very good example to understand how business environment difficulties reflect on growth at the company level. Slovakia, as a small, open economy that exports a lot, especially in the automotive and electronics sectors, depends a lot on the performance and competitiveness of its local firms for its growth. Since 2004, when Slovakia became a member of the EU, there has been remarkable economic growth in the country, and at the same time, foreign direct investment has increased. It has been noted in previous studies that firms' subjective perceptions correlate very well with objective measures of institutional quality, thus affecting their investment decisions, innovation, and growth (Carlin, Schaffer & Seabright, 2006; EBRD, 2019). Hence, the perception-based data obtained from WBES is of great value for micro-level policy analysis. The role of business environment quality, although critical, has not been a major determinant in the Slovak case, as the country has received less consideration compared to other transition economies. Most research resources have been

directed to the international context and topics like FDI-led industrialization (Pavlínek & Ženka, 2016), productivity spillovers (Hagemejer & Tyrowicz, 2011), and regional inequalities (Lux, 2017). Though studies on firm constraints are few, they often deal with narrow issues or offer macro-level data that can obscure significant differences between firms. Moreover, Slovak companies, which consist mainly of small and medium-sized enterprises, proclaim that they are always the first to suffer from the problems resulting from administration, regulation, and labor-related issues. Nevertheless, the precise distribution and interaction of these problems amongst diverse categories of enterprises is still unexplored (OECD, 2023). Consequently, a very detailed micro-level analysis is necessary to find out which limitations are the most significant ones, for whom, and under what conditions. In this research, I fill this gap by presenting an in-depth analysis of the limitations imposed by the business environment on Slovak companies. Through the use of 2023 World Bank Enterprise Survey microdata, obstacles are ranked in terms of their severity, and the analysis proceeds in three steps. First, we provide descriptive statistics along with a comparative analysis to bring out the most common and harsh obstacles faced by the firms. Subsequently, we implement multivariate correlation models to identify the factors that are perceived as obstacles and investigate the extent to which the companies' characteristics and the context are responsible for the categorization of these obstacles as severe. Also, through PCA, we assemble a composite Business Environment Constraint Index (BECI) and afterward, depending on the result, do cluster analysis to reveal the different types of firms' profiles, like those plagued by the regulations, limited staff, inadequate infrastructure, or other complicated matters.
One of the major contributions of this study is that it provides the latest firm-level data on the problems companies in Slovakia are facing, which are coming from the standardized survey data that can be henceforth compared worldwide. Furthermore, a multidimensional constraint index is created with the help of traditional methods that allow for a deeper understanding of the quality of the business environment. The study will provide important insights to the policymakers not only through identifying the disparities in the obstacles that different types of firms face but also through indicating the areas where the reforms would be most advantageous in terms of competitiveness and growth. Given the problems that Slovakia is facing, such as a lack of qualified personnel, slow bureaucratic processes, and irregular infrastructure quality, the research outcomes are very valuable for the future strategy of developing SME, innovation, and the overall business environment. This paper also contributes to the broader literature on the quality of institutions, business environment difficulties, and performance of firms in the case of rising European markets. Through the combination of thorough microdata with empirical methods, we reveal the structural obstacles that prevent firm growth in Slovakia, thus highlighting the policy priorities that can turn the business environment into more supportive, efficient, and competitive.

2. LITERATURE REVIEW

The business environment's quality is generally acknowledged as a major determinant of the firm's performance, the choice of investments, and subsequently, the financial growth of the economy over the long term. A lot of researchers have investigated how the institutional factors, such as the regulatory environment, the quality of the physical and social infrastructure, the availability of financing, and the labor market conditions, determine the perimeter of difficulties in which the firms have to operate and their ability to expand. In this part of the text, I will review the main theoretical foundations and empirical findings concerning the obstacles in the business environment, with specific attention to the evidence from the transition economies and their meaning for Slovakia.

2.1 Theoretical Background: Institutions, Transaction Costs, and Firm Constraints

The theoretical foundation upon which the analysis of constraints in the business environment is based is mainly derived from the concepts of institutional economics and transaction costs theory. North (1990) maintains that the formal institutional rules, informal norms, and enforcement mechanisms play a pivotal role in determining economic transactions by giving rise to incentives and minimizing uncertainty. The powerful institutions are the ones that bring about the reduction of transaction costs, lower the entry barriers as well as encourage the investors to put their money into the productive sectors. Weak institutions, on the contrary, can impose a burden of extra costs and risks on companies, leading to the scenario of cutting down investment, and their subsequent inefficient use as well as mistaking the right place of the resources (Acemoglu & Robinson, 2012). Literature reviews in particular the problems pertaining to the regulatory burden and administration inefficiency. Djankov et al. (2002) illustrate how the high entry regulations may drive away entrepreneurs, spur informality, and thus let corruption thrive. Likewise, the new institutional economics viewpoint, as represented by Williamson (2000), observes that the convoluted regulatory system can cause a hike in the compliance costs which directly affects the start-ups and small firms in an adverse manner since they do not have the necessary skilled manpower to handle the situation. Production theory sees external restrictions as factors that can lower the firm's capacity to produce, hence causing a loss both in growth and efficiency (Bloom et al., 2010). Transitional economies are very much dependent on how the institutions evolve. They have almost always undergone sudden shifts in rules that have changed the landscape from completely old practices to entirely new market-oriented institutions, hence making the whole region very complicated and difficult to administrate, with lots of legal disputes and corruption (Commander & Svejnar, 2011). Recognizing these institutional features is of utmost importance when trying to understand the different limitations that companies in Slovakia are facing.

2.2 Empirical Evidence on Business Environment Obstacles

Continuous empirical evidence obtained through individual firm data provides insight into the fact that business environmental constraints bear heavy weight on firms' choice of growth, productivity, and investment. At the same time, Carlin, Schaffer, and Seabright (2006) investigate cross-country enterprise data and arrive at the conclusion that infrastructure, contract enforcement, and access to finance are the major bottlenecks that hinder the global operations of companies. They state that the barriers recognized by the corporations are usually the manifestations of the underlying institutional frailties and are the strongest indicators of a firm's ability to innovate and be in the competition. Hallward-Driemeier and Pritchett (2015) point out that regulations and taxes are among the primary difficulties and that there is a huge difference between the “rules on the books” and the “rules on the ground,” meaning that formal regulations might not fully capture the total burden created by discretionary enforcement, informal payments, and administrative inconsistencies. This difference in perspective contributes to the understanding of the reason why firms in developing and transitional countries often complain about heavy administrative loads, even when there are reforms being pressed for making processes easier.

Moreover, an inquiry into the lack of manpower and qualifications has been conducted. Demand for a skilled workforce is often more than supply, which is a very serious limitation, especially for small and medium enterprises (SMEs) and manufacturing businesses. According to the OECD (2023), severe skill shortages are occurring in Central and Eastern Europe (CEE), and Slovakia is one of the countries where companies quite often list a shortage of skilled workers as a major obstacle to growth. Poor quality of infrastructure, like electricity supply reliability, transport systems, and internet access, remains a crucial factor in deciding the competitiveness of a company. Dollar, Hallward-Driemeier, and Mengistae

(2005) support the claim that poor infrastructure can raise the cost of production and lower output significantly, especially in manufacturing industries where power supply and logistics are critical factors.
Numerous researchers have highlighted the issue of access to finance as a major obstacle. Beck, Demirgüç-Kunt, and Maksimovic (2005) classify small businesses, start-ups, and companies operating in less financially developed countries as the most affected by the lack of financing. Even though Slovakia has a quite progressive banking system, small and medium-sized enterprises (SMEs) still have to comply with higher requirements for collateral and face more rigid conditions for obtaining loans as compared to large enterprises (EBRD, 2019). Besides, unethical practices such as bribery and non-implementation of contracts might seriously harm the reputation of a firm's performance and, thus, raise the cost of doing business. According to Fisman and Svensson (2007), corruption amounts to an unrecorded tax, which, like the formal tax, mainly affects the growth of the company in areas where the institution does not allow for fair and efficient enforcement. Chemin (2012) points out that the slow court processes that accompany the judicial system make it very hard for investors to enter into long-term contracts, especially in industries with complicated supply chains, being the most affected.

2.3 Business Environment Constraints in Transition and EU Member States

The examination of transition economies brings to the surface the institutional and regulatory concerns that are still very much present despite the growth in the economy. Commander and Svejnar (2011) point out that the companies in the former socialist economies are still struggling with problems like bureaucracy, unavailability of skilled labor, and unreliable policy. This issue is most apparent in the countries that are closely connected to the global production networks, such as Slovakia, Czechia, Hungary, and Poland. In the CEE region, comparative research has demonstrated that while all these countries are dealing with the same difficulties, their views on the matter vary considerably. Juhász and Kiss (2020) indicate that companies in Visegrad countries often cite tax, labor, and regulation issues as major bottlenecks. Eslava et al. (2019) come to a similar conclusion by pointing out the role of institutional unpredictability in discouraging long-term investment decisions. Moreover, really strong evidence reveals the existence of large differences not only among countries but also within countries. Cities are usually equipped with better infrastructure and have better administrative resources, while the countryside is facing greater limitations in terms of access to quality labor and public services (Lux, 2017). Manufacturing companies usually mention infrastructure and logistics as the main problems, while service companies are more affected by regulatory issues and a lack of qualified personnel (OECD, 2023).

2.4 Prior Studies Using World Bank Enterprise Surveys

The WBES or World Bank Enterprise Surveys dataset can be considered a trustworthy source for empirical research due to its unvarying structure and broad scope. The researchers taking up this dataset put forth the notion that the first hurdle that businesses have to face, by far, is related to regulations and taxes, followed by issues with corruption and the courts (Aterido, Hallward-Driemeier & Pagés, 2011; Hallward-Driemeier & Pritchett, 2015) and lack of infrastructural development and power supply reliability (Dollar et al., 2005). Furthermore, the thoughts of the workforce's quality and the labor market's inflexibility are also major concerns (Cirera & Qasim, 2014). More importantly, these subjective evaluations turn out to be quite in line with objective performance metrics; for example, Gonzalez et al. (2007) show that the supposed regulatory burden is related to the actual time that firms spend on regulatory issues and the costs of compliance, thus illustrating the significance of these survey indicators for rigorous empirical analysis. Nevertheless, there is still a relatively limited number of studies that explore country-specific variations in depth. Certainly, such in-depth analyses are extremely important because the national-level data often conceal vast differences in terms of firm size, sector, and location, thus pointing to the necessity for more micro-level research in Slovakia.

2.5 Gaps in the Literature and Contribution of This Study

Research on firm-level constraints in the CEE region is gaining traction, but studies focused exclusively on Slovakia are quite limited. Most of the studies on the Slovak economy tend to deal with FDI, productivity spillovers, or industrial upgrading issues (Pavlínek, 2018; Pavlínek & Ženka, 2016). Very few studies, however, try to look at the business climate through a firm's perspective, and when they do, they tackle only certain aspects, such as taxes or skills, rather than the entire spectrum, thus following a fragmented approach. This study will contribute to the literature in several significant ways to fill those gaps. Firstly, it will provide a fresh micro-level assessment of the business environment constraints in Slovakia based on the exceptionally detailed 2023 WBES dataset. Secondly, it will examine the differences between firms' size, sector, and location to find out the most and least difficult situations for different firms and the reasons behind them. Thirdly, it will use Principal Component Analysis (PCA) to construct a composite Business Environment Constraint Index (BECI) that will enable a more comprehensive evaluation than that provided by the individual indicators alone. The application of descriptive, econometric, and clustering techniques will together offer a very comprehensive analysis of firm-level barriers in Slovakia that is of great relevance to policymaking.

3. METHODOLOGY

This chapter presents the methodological framework that we use to investigate the challenges in business operations that were reported by Slovak firms in the World Bank Enterprise Survey (WBES) in 2023. The dataset is very rich with the variables that are related to the perception of the obstacles; thus, we resort to a data-driven method that first of all reveals descriptive patterns, then assesses the relationships between these obstacles structurally, and finally identifies the groupings of latent constraints. For data analysis, we apply correlation analysis and Principal Component Analysis (PCA), which are the tools widely recognized in the areas of institutional economics and business environment diagnostics (Carlin, Schaffer & Seabright, 2006; Hallward-Driemeier & Pritchett, 2015; Jolliffe & Cadima, 2016).

3.1 Research Design

The research aims at unearthing quantitative data and taking an exploratory route, which from the very start has been guided by previous studies in this area that have used firm perception surveys to rate institutional quality and the business environment (Carlin, Schaffer & Seabright, 2006; Hallward-Driemeier & Pritchett, 2015). To further these techniques, our first question tackles the identification of the most critical business environment challenges that the Slovak enterprises perceive, while the second question studies the interrelations of these challenges, and finally, we will determine if it is possible to classify the companies based on the types of obstacles they face into significant profiles.

3.2 Data Source

The current analysis is primarily based on the 2023 World Bank Enterprise Survey (WBES) for the Slovak Republic, which provides us with the data of 464 business firms that were interviewed through a standardized questionnaire aimed at evaluating the business environmental conditions in various countries. The dataset reflects deeply and through the perceptions of the respondents, which mainly deal with various crises of the companies. These challenges include, but are not limited to, the following areas: regulations, taxes, corruption, transportation, electricity, availability of labor, the judicial system, finance, and stability of the economy. Furthermore, the information also points out the institutional weights and operational hardships arising from the legal procedures that determine how the firms interact with the government through the questions of difficulties, waiting times, and evaluations of institutional quality.

3.3 Variable Description

The empirical study is grounded on a set of 'firm-level perception' variables obtained from the World Bank Enterprise Survey (WBES) Slovakia 2023. Each variable is the rating given by the company to the severity of the obstacles that characterize the business environment. The WBES employs a common Severity Scale for those variables making the comparison of different constraints and different firms very easy. A rating of 0 means that there is no obstacle, 1 means minor, 2 means moderate, 3 means major, and 4 means a very severe obstacle according to this scale. The use of a single measurement for all makes it possible for us to conduct a thorough analysis of the perceived constraints in the business environment. The database consists of variables that are directly related to the significant factors of the business environment, thus providing the analytical core of our research on perception-based obstacles. These factors include the challenges arising from regulatory and tax administration, such as the burdens of compliance and the delays of procedures; the complexities of licensing and permits which depict the unpredictability and the delays; and finally, the reliability of power supply, access to transport, and telecommunications have all dictated the terms of industries and labor markets e.g., availability of skilled workers and tough regulation. Furthermore, the data includes problems related to governance and corruption, such as hidden payments, court fairness and efficiency, and macroeconomic and political instability factors. The whole range of these variables shows a very complex institutional environment that has a strong impact on the strategies chosen by companies.

3.4 Descriptive and Correlation Analysis

3.4.1 Descriptive Statistics

The first part of our analysis looks at some descriptive statistics, which clearly show that obstacle severity is very different in various companies. Mean, median, and frequency distribution are calculated for every obstacle in order to detect those that are considered and reported as the most severe on a nationwide scale. The preliminary statistical summaries mentioned above enable us not only to rank the obstacles with respect to their average severity but also to indicate the areas where companies have operational difficulties most frequently. The average analysis gives us a perspective from the different businesses on the distribution of obstacles, whether most of the companies are having the same issues, or if some obstacles are more seriously affecting particular groups.

3.4.2 Correlation Matrix

Our correlation matrix provides a detailed view of the different obstacles that existed simultaneously in various companies. The analysis of the correlation structure helps to reveal the constraints that may exist along with others, possibly indicating stronger relationships between the organization's departments. For instance, the strong positive correlation between taxes, permits, and regulations could indicate a burdensome bureaucracy to deal with. On the other hand, if the correlations are found among the issues associated with infrastructure, such as reliability of the electricity supply and transportation, it could imply that the physical infrastructure is not as reliable.

3.5 Principal Component Analysis (PCA)

3.5.1 Purpose

We employ Principal Component Analysis to reveal the underlying factors that govern the companies' responses to various challenges and, at the same time, simplify the complexity of the obstacle variables. This method becomes specifically advantageous in dealing with scenarios where a great number of variables overlap, which is the case with surveys on the business environment most of the time. By means of PCA, identifying broad topics like regulatory obstacles, infrastructure problems, labor market issues, and corruption and judicial influence is made easier since those are the components that are already extracted. The procedure is in line with Jolliffe and Cadima's (2016) guidelines for perception-based dataset analysis and, at the same time, gives a clearer, more manageable view of the barriers that companies face.

3.5.2 Method

Let X_{ij} denote the severity score for the obstacle j reported by the firm i. Because obstacle variables are measured on different ranges and scales, PCA requires standardizing each variable. Standardization ensures that all variables contribute equally to the analysis, and we therefore compute the standardized value Z_{ij} as follows:

$$Z_{ij} = \frac{X_{ij} - \bar{X}_j}{\sigma_j}$$

where $\bar{X}_j$ is the mean severity of the obstacle j across all firms, and σ_j is its standard deviation. This transformation converts all variables into comparable units measured in standard deviations from the mean. PCA then computes the eigenvectors and eigenvalues of the covariance matrix of the standardized data. The eigenvectors correspond to principal components that contain uncorrelated variables that are weighted combinations of the original obstacles, while eigenvalues measure the variance explained by each component. Components with eigenvalues≥ 1 (Kaiser criterion) are retained. ensuring that only components with substantial informational content are analyzed further.

3.5.3 Business Environment Constraint Index (BECI)

The first principal component (PC1), which explains the largest share of total variance, is then interpreted as a summary indicator of overall constraint intensity. Using the PCA weights, the Business Environment Constraint Index (BECI) for the firm i is computed as:

$$BECI_i = w_1 Z_{i1} + w_2 Z_{i2} + \cdots + w_k Z_{ik}$$

Here, $w_1, w_2, \ldots, w_k$represent the PCA loadings (weights) for each obstacle variable, and Z_{ij} are standardized obstacle scores. Companies having higher BECI values encounter stronger and more complicated restrictions. When computed, the index is converted to a scale having a mean of 0 and a variance of 1, which enables us to interpret and compare across firms easily.

4. DATA AND RESULTS INTERPRETATION

4.1 Data Source

The analysis is reliant on the World Bank Enterprise Survey (WBES) 2023 conducted in Slovakia and it comprised standardized data obtained from interviews with companies that are legally recognized. By using the same sampling methods, the same questionnaire, and applying strict quality control measures, the WBES approach enables comparing countries and surveys carried out in different years.

4.2 Structure of the Dataset

The dataset used for this research contains numerous variables, but the analysis is primarily concentrated on two groups of indicators: the business environment and the perceptions derived from the World Bank Enterprise Survey (WBES). The variables are classified into three major categories. The first bunch consists of the severity of obstacles variables, which determine the extent of the various problems that companies perceive as negatively impacting their daily operations. These variables are rated from 0 (no obstacle) to 4 (very severe obstacle) and are thereby related to the key areas of the WBES business environment framework. Such areas include taxes, regulations, licensing and permits, and the reliability of electricity and transport, besides the availability and quality of the staff and other non-business factors like bribery and informal practices, judiciary, crime and safety, and political or economic instability at a larger extent. The measures reflect the subjective views of firms as they highlight perceived constraints rather than objective performance metrics, which is crucial to keep in mind when interpreting the results.

The second category of variables includes factors of institutional interaction, which reflect the experiences of the firms as they indicate the firms' business relations with the different regulatory and administrative processes. The factors are the time that it takes to get licenses or approvals, the number of inspections that are conducted, the length of the tax compliance process, and the reliability of essential public services such as power supply, transport, and telecommunications. In addition to this, there are companies' encounters with corrupt practices, under-the-table payments, and lawsuits. Besides, these variables indicate the perceived severity of the obstacles and at the same time, they show the companies' attitude towards the institutional environment. The dataset is also supplemented with important survey identifiers such as interview ID number, sampling weight, and stratification code. These elements are crucial for making sure that the survey responses are both representative and accurately weighted. In conclusion, these factors are the basis for the study of the limitations that Slovak companies encounter in their business environment.

5. RESULTS

This section shows the results of analyzing the challenges that Slovak businesses face through the lens of the World Bank Enterprise Survey of 2023. The results are divided into four main parts. Firstly, we provide some descriptive statistics that give insights into the severity of each obstacle. Then, we conduct a correlation analysis to find out how these constraints are associated among various companies. After that, we utilize principal component analysis (PCA) to identify the business environment factors and to develop a measure referred to as the Business Environment Constraint Index (BECI). Finally, we recommend several strategies, policy measures, and suggest areas for future research that will benefit our chosen topic in a way that it receives justice.

5.1 Descriptive Statistics: Ranking of Business Environment Constraints

Table 5.1 reports summary statistics for the 22 obstacle variables included in the analysis. These statistics cover the number of observations, mean severity scores, dispersion measures, and key percentiles. The *m1a_* variables follow a 1–15 scale, where higher values indicate more severe constraints, while the *j30_* variables follow a 1–7 scale.

Table 5.1 Summary Statistics

Variable	Mean	Std. Dev.	Min	P25	Median	P75	Max
j30_taxrate_pos	4.03	2.01	1	2	4	6	7
j30_taxadmin_pos	4.19	1.90	1	3	4	6	7
j30_permit_pos	4.08	1.95	1	2	4	6	7

j30_instability_pos	4.24	1.96	1	2.75	4	6	7
j30_corruption_pos	4.00	2.08	1	2	4	6	7
j30_courts_pos	3.93	2.03	1	2	4	6	7
j30_crime_pos	3.53	1.98	1	2	4	6	7
m1a_finance_pos	9.13	4.24	1	6	9	12	15
m1a_labor_pos	8.92	4.19	1	6	9	12	15
m1a_electricity_pos	8.64	4.11	1	6	9	12	15
m1a_trade_pos	8.55	4.31	1	6	9	12	15
m1a_corruption_pos	8.52	4.28	1	6	9	12	15
m1a_workforce_pos	8.49	4.29	1	6	9	12	15
m1a_crime_pos	8.42	4.25	1	6	9	12	15
m1a_permit_pos	8.34	4.21	1	6	8	12	15
m1a_courts_pos	8.32	4.26	1	6	9	12	15
m1a_instability_pos	8.09	4.12	1	6	8	12	15
m1a_land_pos	8.08	4.25	1	6	8	12	15
m1a_informal_pos	7.53	4.04	1	4	7	10	15
m1a_taxadmin_pos	7.23	4.06	1	4	7	10	15
m1a_taxrate_pos	6.27	3.90	1	3	6	9	15
m1a_transport_pos	5.48	2.91	1	3	6	8	10

The table above shows us an overview of different patterns in the problems Slovak businesses are dealing with. The most important issue is access to finance, which is the biggest problem, and it has an average score of around 9.13. Then there are labor shortages and skills mismatches in the workforce. One more issue that is often highlighted too much is the infrastructure problems, mainly the power reliability. In contrast, the aforementioned factors like institutional corruption, court system inefficiencies, crime, and political or economic instability have very high average scores and are thus considered serious governance challenges in the business environment. Transport-related issues, however, have a lower average score of about 5.48, thus impacting some companies but still being less significant than the problems of finance, institutions, and workforce combined. Political and economic instability (4.24), tax administration (4.19), and tax rates (4.03) are the most serious factors among the different ones. The overall picture from these results is that Slovak companies are facing a mix of financial, institutional, and labor market problems; thus, more advanced analytical techniques like PCA would be needed to provide us with a more in-depth analysis as we delve into the heart of these challenges.

5.2 Correlation Structure of Constraints

Before we start on the dimension extractions, it is good to know that there are some problems that overlap. The correlation matrix displayed in Table 5.2 presents the 12 most important difficulties that have been selected considering the clarity of interpretation and the need for brevity. We take out the 12 mostly seen constraints as we recognize that the correlation matrix is very large.

Table 5.2. Correlation Matrix of Business Environment Obstacle Variables

Variable	taxrate	taxadmin	permit	corrupt	courts	instab	crime	informal	electr	trans	finance	workforce
taxrate	1.00	0.51	0.48	0.39	0.42	0.47	0.33	0.21	0.29	0.18	0.31	0.27
taxadmin	0.51	1.00	0.45	0.41	0.46	0.43	0.34	0.17	0.25	0.11	0.28	0.23

permit	0.48	0.45	1.00	0.37	0.39	0.41	0.30	0.15	0.22	0.09	0.25	0.19
corrupt	0.39	0.41	0.37	1.00	0.52	0.44	0.31	0.20	0.28	0.12	0.30	0.22
courts	0.42	0.46	0.39	0.52	1.00	0.49	0.29	0.18	0.26	0.14	0.27	0.20
instab	0.47	0.43	0.41	0.44	0.49	1.00	0.38	0.24	0.31	0.16	0.33	0.28
crime	0.33	0.34	0.30	0.31	0.29	0.38	1.00	0.27	0.19	0.11	0.22	0.18
informal	0.21	0.17	0.15	0.20	0.18	0.24	0.27	1.00	0.16	0.12	0.19	0.16
electr	0.29	0.25	0.22	0.28	0.26	0.31	0.19	0.16	1.00	0.42	0.34	0.31
trans	0.18	0.11	0.09	0.12	0.14	0.16	0.11	0.12	0.42	1.00	0.27	0.22
finance	0.31	0.28	0.25	0.30	0.27	0.33	0.22	0.19	0.34	0.27	1.00	0.29
workforce	0.27	0.23	0.19	0.22	0.20	0.28	0.18	0.16	0.31	0.22	0.29	1.00

The correlation analysis reveals some important structural patterns in the overlap of business environment constraints among Slovak firms. To begin with, there is a very strong connection between regulatory and tax-related challenges: usually, when the tax rates, tax administration, and permits are high, it is also the case that firms dealing with one of the regulatory issues are likely to face several layers of administrative troubles. Moreover, the judicial and governance-related constraints are shown to cluster together with factors such as corruption, court issues, crime, and political or economic instability, displaying moderately strong positive correlations. This indicates that the firms operating in weaker institutional settings are likely to face governance challenges that are overlapping. Furthermore, infrastructural problems, especially those related to electricity and transport, have a somewhat separate dimension as they are positively correlated with each other and are moderately linked to trade and finance constraints, indicating a broader range of operational-cost problems for firms facing logistical or utility issues. Finally, labor and workforce constraints have strong correlations with finance and trade obstacles, which means that the companies suffering from skill shortages might also have trouble getting financing or being competitive in both domestic and international markets. Overall, these correlation patterns portray the connectedness of the business constraints rather than their isolation, which favors the application of multivariate techniques, such as PCA, in uncovering deeper structural relationships among these obstacle variables.

5.3 Principal Component Analysis and the BECI

5.3.1 Explained Variance and Component Structure

To reveal the main factors relating to firms' perceived constraints, the 22 standardized obstacle variables were subjected to principal component analysis. It was found that the first principal component (PC1) represented about 7.3% of the total variance, while the first five components together accounted for roughly 33% of the total variation in obstacles. (See Table 5.3) Even though no one component stands out as the most important, PC1 reflects the greatest common variance among the different constraints and thus is used to create the composite index of business environment constraints (BECI). The loading structure of PC1 highlights the obstacles that contribute most to this latent dimension. The strongest positive loadings (Table 5.4) are associated with political and economic instability (j30_instability_pos), crime and security problems (m1a_crime_pos), court inefficiency (j30_courts_pos; m1a_courts_pos), corruption (m1a_corruption_pos), and tax administration burdens (m1a_taxadmin_pos). These variables load heavily and in the same direction, indicating that PC1 reflects an overarching “institutional risk and security” factor: firms with high PC1 scores tend to face severe institutional, governance, and enforcement-related challenges. Tables 5.3 and 5.4 below report the detailed loadings for the first principal component (PC1), showing which obstacles contribute most to the overall constraint dimension.

Table 5.3 PCA Explained Variance by Component

Component	Variance Ratio	Cumulative
1	0.0731	0.0731
2	0.0685	0.1417
3	0.0643	0.2060
4	0.0613	0.2673
5	0.0590	0.3263

Table 5.4 Principal Component Loadings (PC1): Institutional and Operational Constraints
Shows the contribution of each obstacle variable to the first principal component.

Variable	Loading
j30_instability_pos	0.3917
m1a_crime_pos	0.2944
j30_courts_pos	0.2806
m1a_corruption_pos	0.2798
m1a_taxadmin_pos	0.2263
m1a_courts_pos	0.2236
m1a_taxrate_pos	0.1020
j30_taxrate_pos	0.0906
m1a_informal_pos	0.0683
m1a_instability_pos	0.0458
m1a_finance_pos	0.0406
m1a_labor_pos	-0.0883
m1a_electricity_pos	-0.1105
m1a_workforce_pos	-0.1514
j30_taxadmin_pos	-0.1539
m1a_transport_pos	-0.1666
j30_corruption_pos	-0.1705
m1a_land_pos	-0.1760
j30_permit_pos	-0.2092
m1a_permit_pos	-0.2323
j30_crime_pos	-0.2348
m1a_trade_pos	-0.4090

5.3.2 Business Environment Constraint Index (BECI)

The Business Environment Constraint Index (BECI) is constructed as the standardized score of the first principal component:

$$BECI_i = \sum_j w_j \, Z_{ij},$$

where w_j are the PC1 loadings and Z_{ij} are standardized obstacle scores for the firm i. The index is then normalized to have mean zero and unit standard deviation. The distribution of

BECI scores (Figure 5.1) is approximately symmetric, with a moderate spread around the mean. Firms in the upper tail of the BECI distribution can be interpreted as those facing particularly severe institutional and security-related constraints, while those in the lower tail experience comparatively milder overall constraints or are more affected by trade and infrastructure issues rather than governance problems. We use this composite measure to classify firms and visualize the overall constraint landscape.

Figure 5.1 Scree Plot of PCA Components

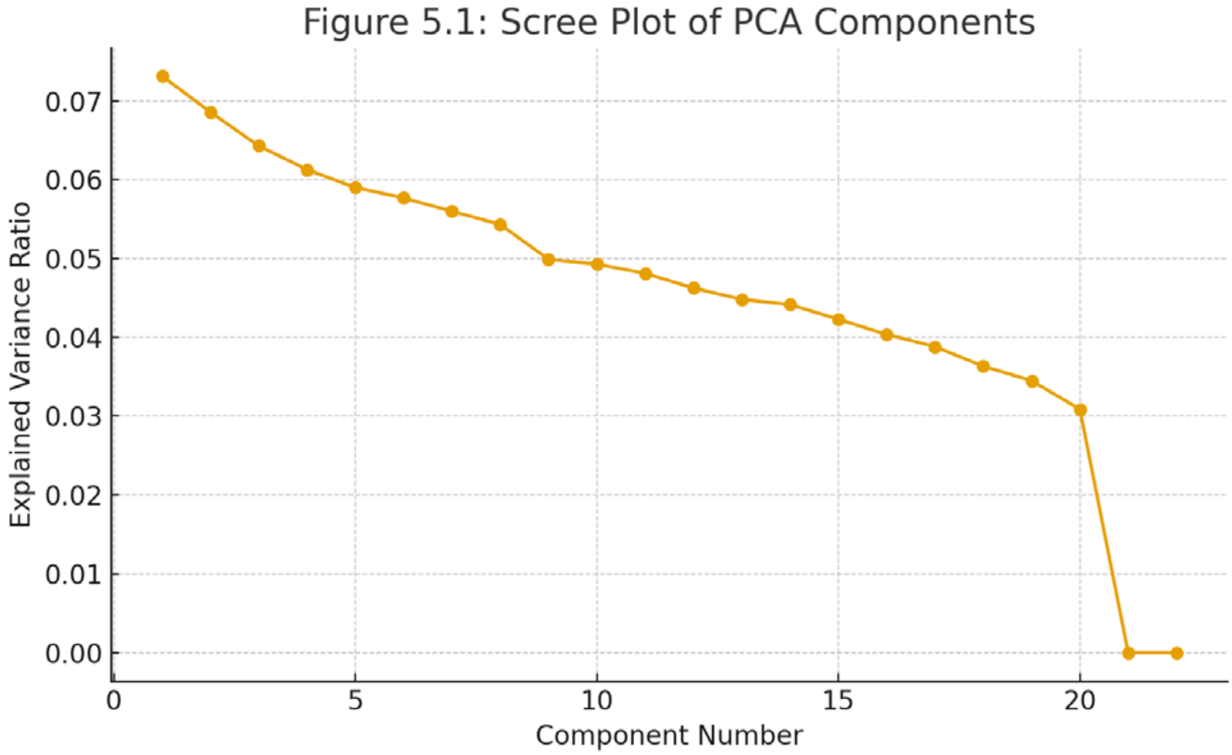

Figure 5.1 shows a visual representation of the proportion of variance explained by each principal component. The elbow indicates that the first several components capture the most meaningful structure in the obstacle data.

5.5 Discussion of Main Findings

The correlation analysis reveals that regulatory and tax issues, which are often thought of as two separate matters, are in reality very much related, and they add to the overall heavy administration burden that is placed on the companies. At the same time, governance is a very broad topic that includes different problems, which implies that if one of the public institutions is weak, it can lead to the formation of another one in the private sector. Whereas the issue of infrastructure is somewhat different but still causes a moderate correlation with the financial and trade-related issues; thus, indicating that the operation costs and the delay in getting supply and access to the market are all interrelated and belong to the broader financial and market access concerns.

The PCA results emphasize these trends by revealing the main underlying factor as institutional and governance risk. This factor is built on such elements as instability, corruption, inefficiencies in the court system, and crime. In a sense, the factor captures the collective issues that businesses face in general and is mainly the character of the Business Environment Constraint Index (BECI). The other factors indicate secondary issues associated with the infrastructure, labor skills, and regulatory hassles, which support the idea that these are all interrelated problems and not isolated cases. This all leads to the conclusion that there is a need for policy interventions tailored to specific areas rather than a one-size-fits-all approach. Companies that mainly face governance problems require improvements in judicial efficiency, transparency, and anti-corruption measures. Whereas companies that are experiencing infrastructure-related issues would prefer investments in reliable electricity and transport networks as their way of gaining. At the same time, the continuous labor and skill shortages make the workforce initiatives that meet the industry requirements. The research results suggest that the improvement of the Slovak business environment will be possible only through the simultaneous reforms in the three sectors, among them the financial markets, public governance, and infrastructure systems, as there is no one fit it all constraint; they are all interconnected, in one way or another.

6. POLICY RECOMMENDATIONS

The financial difficulties, the labor market problems, the institutional barriers, and the infrastructural issues stand out as the most acute problems that Slovak companies are facing. Therefore, it is necessary for the major policy changes to be well-coordinated and planned across different sectors instead of implementing them one by one. The continuous severity of the financial constraints signals the urgent need for small and medium-sized enterprises (SMEs) to get easier access to credit. To support this, credit guarantee programs, a larger role of development finance institutions, and better financial literacy and advisory services for the companies can be suggested as possible measures. Moreover, the actions to reduce collateral requirements and the making of the lending processes more transparent would significantly assist in solving the financial drawbacks. Closing the gap in the labor market between the skilled people and the required workforce is one of the key factors that will contribute to human capital development. The government is able to do this more efficiently by empowering vocational education and establishing training programs that are specific to the industry. The training policies that would facilitate the upskilling, encourage the acquisition of digital skills, and establish partnerships between the education sector and the industry can be very useful in getting rid of the structural mismatches that have been reported in the data.

PCA results vividly portray these trends, indicating that the dominant risk factor is that of the institutional and governance risk. This is the case especially with problems like political instability, corruption, inefficacy in the judicial system, and crime. The component essentially mirrors the systemic hurdles that businesses face in general and goes on to be the basis of the Business Environment Constraint Index (BECI). Other components reveal infrastructure, workforce skills, and regulatory challenges to be secondary factors, thus the idea of these obstacles being interconnected and not isolated as issues is even further enforced. The whole situation points to the need for differentiated rather than uniform policy interventions. Governance problem-afflicted firms need the improvement of judicial efficiency, transparency, and anti-corruption measures. On the flip side, companies dealing with the power and transportation sector would benefit more from the investment in these infrastructures. In addition, the fact that the labor market is always short of skilled workers points to the necessity of training programs for workers that match the industries' needs. The data imply that to improve the Slovak business environment, reforms in finance, public governance, and infrastructure have to be synchronized in order to deal with the intricate and tough requirements that the businesses are facing at the moment.

7. CONCLUSION

The research focused on the shortcomings of the Slovak business environment for firms and employed the data from the 2023 World Bank Enterprise Survey. The paper provides an evaluation of the influences on the activities of these enterprises by means of descriptive statistics, correlation patterns, and the PCA (Principal Component Analysis) technique.

According to the study, many difficulties were revealed, among them inadequate accessibility to finance, the lack of employees, and institutional issues like corruption, poor judicial systems, crime, and general instability have all been pointed out as major problems. By the correlation study, it is evident that the difficulties mentioned are not only closely connected but also can be categorized into large groups, so that the regulatory, governance, infrastructure, and labor issues are at the forefront. The application of the PCA in the research has brought out a few major factors that represent the business environment structure in a nutshell. The first principal component brought forth an institutional-risk dimension that was predominantly made up of public perception concerning instability, corruption, crime, and judicial inefficiency. This was the very basis on which the Business Environment Constraint Index (BECI) was created. It confirms the significance of good governance as a determinant of the quality of business environments. The findings imply that the journey towards a better business environment in Slovakia will be a slow one, involving finance, institutions, labor markets, and infrastructure all at once. Our work contributes to the body of knowledge by demonstrating the crucial role of multidimensional survey data in identifying the fundamental structures of the business environment. It also provides a very strong evidential basis for the policymakers who are in pursuit of implementing more specific and effective reforms. Looking ahead, future research could build on this by incorporating data on firm performance or longitudinal studies, which would allow for a deeper understanding of how constraints influence company growth and productivity.

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BARRIERS AND OPPORTUNITIES FOR RETRAINING WOMEN IN THE CONTEXT OF THE DIGITALIZATION OF THE CZECH LABOR MARKET

Andrea Karas

Abstract

The study analyzes the issue of women's retraining in the Czech Republic in the context of ongoing digitalization. The aim is to assess the effectiveness of programs and barriers to women's reintegration into the labor market. The research combines quantitative analysis of statistical data (2020–2025) and a study from the Czechitas company. Women make up 60% of retraining participants, but they encounter structural obstacles. While state programs are traditional, the non-profit sector dominates in IT. The analysis confirms the higher flexibility and success of private initiatives. The text suggests a systemic connection of education with social services. A key recommendation is broader support for flexible work schedules. Without these changes, the digital potential of women in the economy will remain unused. The study serves as a basis for creating more modern public policies.

Keywords: *retraining, retraining of women, digitalization, czech labor market, changing labor market, digital competencies, flexible working arrangements*

1 DYNAMICS OF THE CZECH LABOR MARKET AD THE STRATEGIC IMPORTANCE OF WOMEN'S RETRAINING

The dynamics of the labour market in the Czech Republic have been undergoing significant changes in recent decades, which are accelerated by digitization, automation and the transition to new economic models. (Houštecká et al., 2024) Economic restructuring, technological progress and the transition to a green economy are fundamentally changing the dynamics of the workforce and contributing to persistent labour shortages in various sectors. The Czech labour market is facing acute recruitment problems, with 66% of employers reporting difficulties in finding suitable workers. (OECD, 2025) In this evolving environment, women represent a critical and often underutilized segment of the Czech workforce. In 2024, women made up 50.9% of the total population. (Czech Statistic Office, 2024) Maximising their full and effective participation is increasingly recognised as essential to sustain economic growth and ensure the long-term sustainability of social security systems in the context of these demographic pressures. (OECD, 2025) A nation's economic vitality is intrinsically linked to its ability to mobilize and adapt all of its human capital, which makes women's empowerment in the labor market a strategic imperative. In this context, reskilling is becoming a key tool for maintaining and increasing the employability of the population. Specific attention is paid to the retraining of women, as their position in the labour market is historically and simultaneously influenced by a number of gender asymmetries and social expectations. (Jarkovská, Lišková, 2008) The aim of this article is to provide a comprehensive overview of women's retraining in the Czech Republic, to analyse statistical data, to examine motivational factors and to identify persistent barriers and to summarize recommendations for increasing the effectiveness of retraining programmes.

1.1 Definition of retraining

Retraining in the Czech Republic refers to acquiring new professional qualifications through formal study or practical training, ending with official certification for a specific profession

(Public administration portal, 2025). The state, mainly through the Labour Office, offers financial support for retraining courses (Kulhavá, 2025). Legal frameworks such as the Anti-Discrimination Act of 2009 ensure equal access to employment and education for all, particularly women (EIGE, 2025).

1.2 Types of retraining in the Czech Republic

Individuals registered with the Labour Office can access state-subsidized retraining, which includes "secured" (state-initiated) and "chosen" (individually selected) courses, with financial support assessed case by case (Rybová, 2018). In 2023, women participated in both types of retraining at higher rates than their share among job seekers, indicating both state direction and personal motivation (Houštecká et al., 2024). Women's preference for "chosen" programs may reflect a desire for flexibility and alignment with career goals, particularly in fields like IT that offer remote work (Business Services Center, 2025). Their strong engagement highlights the importance of accessible retraining to support employability and work-life balance.

1.3 The importance of retraining and integration of the Czech workforce

Retraining and upskilling are key strategies for individuals to adapt to the rapidly evolving demands of the modern labour market, where new skills and technologies are emerging at an accelerated pace. The World Economic Forum estimates that 85 million jobs could be replaced by automation by 2025, while 97 million new jobs requiring new skill sets are expected to be created. (Li, 2022) For women, reskilling offers a crucial way to alleviate existing disadvantages in the labour market, facilitate a return after career breaks, transition to fast-growing sectors such as IT and healthcare, and ultimately provide more stable, better-paid and fulfilling employment. (Eures, 2025) Demographic changes in the Czech Republic, characterized by an expected decline in the working-age population, underline the critical importance of maximizing the involvement of all available human capital. (OECD, 2025) Women, who make up more than half of the total population (Czech Statistic Office, 2024), represent a vital segment whose full participation is essential to sustain economic growth and the social security system. (OECD, 2025) This perspective transforms women's retraining not only into a question of social justice, but into a critical national economic strategy. Investing in women's skills development is essential for the future competitiveness and resilience of Czechia in the face of demographic decline and technological change.

1.4 **Statistical analysis of labour market trends in the Czech Republic**

The participation rate of women in the Czech labour market has remained relatively stable, with an economic activity rate of 53.5% for women aged 15+ in 2024 (Czech Statistical Office, 2025). For women aged 25-54, the employment rate rose from 78.8% in 2020 to 81.1% in 2024 (FRED, 2025), while the overall female employment rate fluctuated slightly but increased to 51.9% in 2024. Unemployment among women stayed low, at 3.0% in 2024, but was consistently higher than for men (2.2%) (Czech Statistical Office, 2025). The gender employment gap remains significant—14.7 percentage points in 2024 (Czech Statistical Office, 2025). Older women have seen substantial gains: the employment rate for those aged 55-59 rose to 87.9% and for 60-64 to 51.1% in 2023, largely due to pension reforms (OECD, 2025). However, persistent structural inequalities mean women still face disadvantages in the labour market, underscoring the need for targeted reskilling initiatives.

2 Women's participation in retraining programmes

Recent data show that in 2023, women made up 64.3% of "secured" and 56.6% of "chosen" retraining participants, despite accounting for just 49.75% of the unemployed (Houštecká et al., 2024). Overall, retraining participation among the unemployed remains low—only 2.14% joined programs in 2023—with the probability of starting "secured" retraining at around 0.7%. Although women demonstrate a stronger motivation to reskill, the limited uptake highlights persistent systemic barriers such as lack of awareness, complicated application processes, and insufficient support like childcare, underscoring the need for more accessible digital training (Houštecká et al., 2024; OECD, 2025).

2.1 Digital education course survey

A May 2025 survey from the Labour Office of the Czech Republic and the Ministry of Labour and Social Affairs found that digital education courses, especially in AI, basic computer skills, and digital marketing, significantly improve participants' employability and job prospects. Over 110,000 people joined three major projects funded by the National Recovery Plan, with 72,000 completing their courses. Women made up 63% of participants, mainly aged 30-49, and most were from Prague and other major regions. University graduates were the largest group. The majority of applicants were employed (60%), followed by the self-employed (21%) and the unemployed (13%). Among 5,000 surveyed participants, 85% believed these courses would help them find new jobs, 74% experienced a positive impact on their job search, and 22% expected a higher salary as a result (Labor Office of the Czech Republic, 2025).

2.2 Retraining programmes preferred by women in the Czech Republic

Women favour retraining paths that offer flexibility and the ability to balance work and family life. Popular choices include accounting and payroll courses, assistant and HR training, and management courses in education (Orange Academy, 2024; Šlajsová, 2025). IT fields, such as AI, data analysis, and software testing, are becoming increasingly attractive for their job prospects and remote work opportunities (Boháčová, 2024; Czechitas, 2025). Digital skills—including programming, cyber security, and digital literacy—are in high demand (Dubová, 2024). Digital marketing is also sought after, especially in areas like social media, SEO, PPC and content creation (Dubová, 2024).

2.3 Motivational factors of women to retrain

Women’s motivation for retraining is shaped by economic, personal, and social factors. Financial security is a primary driver, especially for women with lower qualifications or single mothers; IT retraining offers better pay and job flexibility, addressing the persistent gender wage gap in the Czech Republic (Boháčová, 2024; Křižíková et al., 2017). Many also pursue retraining for personal development, career advancement, and to enter more dynamic fields (Šlajsová, 2025; Boháčová, 2024). For mothers returning from maternity or parental leave, retraining helps rebuild skills and confidence, with programs such as Czechitas Digital Academy offering targeted support (Czechitas, 2025). The rise of digitalisation and AI is another strong incentive, as automation is expected to affect sectors where women are overrepresented, making digital skills increasingly important (Houštecká et al., 2024; Office of the Government of the Czech Republic, 2024).

2.4 Barriers to women's retraining

Research by the Ministry of Labour and Social Affairs and international organisations (OECD, Cedefop) has repeatedly highlighted that the obstacles to women's return to the labour market are complex and include both structural and individual factors. The following table 1 summarises the main obstacles, their impacts and possible measures.

Barrier	Impact	Possible measures
Childcare, time availability (unavailability of babysitting, uneven operation of kindergartens)	Interruption of continuity of education, inability to attend courses during the working day	Providing more affordable flexible babysitting services for children (after work, weekends), flexible babysitting
Lack of flexible forms of courses and their quality and relevance (few online courses, hybrid, weekend, regional unevenness)	Limited access for women, especially in regions with poorer transport accessibility	To strengthen the offer of education in an online/hybrid format, to expand the course offer outside large cities
Financial obstacles (costs of course, transport, babysitting, loss of income)	Discouragement of retraining, high economic insecurity	Introduce allowances/scholarships for women on MD, babysitting and transport refunds
Information barriers / lack of career guidance	Low awareness of courses in support tools, feeling disoriented in the system	Establishment of targeted information campaigns, career guidance for women during MD
Low digital literacy and self-confidence (especially for online/IT courses)	Women's reflection on online or IT courses, fear, ignorance or incompetence	Offer basic digital training, pre-course mentoring programs
Gender stereotypes and lack of role models (discourage technical professions)	Limiting part in promising fields	Promo campaigns of female role models, role models, career examples of female graduates
Low support from employers (reluctance to be released for a course, transition to a new role)	Difficult return to work, lack of flexible work options	Employer support programs, flexible working arrangements, part-time agreements after the course
Lack of suitable employment	Less motivation to enter a retraining course, uncertainty of returning	Cooperation with companies to create flexible opportunities, the possibility of working from home

Table 1_Barrier, impacts and possible measures, source: own processing based on research by the Ministry of Labor and Social Affairs of the Czech Republic (Houštecká et al., 2024), Cedefop (2025), Czechitas (2025), OECD (2025)

The analysis shows that many mothers in the Czech Republic face significant barriers to retraining after maternity leave, including limited childcare options, time constraints, financial costs, lack of flexible or online courses, and insufficient employer support (Houštecká et al., 2024; OECD, 2025). These obstacles are compounded by information gaps, low digital literacy, and persistent gender stereotypes, which discourage women from entering high-demand fields like IT (Czechitas, 2025; Cedefop, 2025). Overcoming these challenges requires better access to flexible education, targeted support programs, financial incentives, and stronger promotion of female role models and career guidance (OECD, 2025; Houštecká et al., 2024). These findings provide a framework for the development of policies and programmes that could contribute to increasing women's participation in retraining and thus to strengthening their position in the labour market in the Czech Republic.

2.5 Recommendations for increasing the effectiveness of retraining programmes for women in the Czech Republic

- Expand access to flexible, quality childcare for women in retraining, including on-site services or subsidies (Women, Business and Law, 2022).
- Encourage employers to offer flexible and part-time roles, supporting work-family balance (Office of the Government of the Czech Republic, 2024).
- Boost awareness and simplify application for retraining, with multilingual info campaigns in high-need regions (Kulhavá, 2025).
- Prioritise retraining in high-demand fields like IT, healthcare, and green jobs, in partnership with industry and NGOs (Eures, 2025).
- Use upskilling to reduce the gender pay gap by focusing on skills for higher-paid sectors (IMF, 2018).
- Standardise gender-segregated data collection and regularly assess programme effectiveness (OECD, 2023).
- Strengthen multi-sector collaboration for more relevant and accessible retraining (Office of the Government of Czechia, 2021).
- Raise awareness and tackle labour market discrimination through legislation and campaigns (Office of the Government of the Czech Republic, 2024).
- Develop accessible, high-quality career guidance for women at all ages (OECD, 2025).

Strategic reforms will help unlock women’s workforce potential and drive gender equality and economic growth in Czechia.

Results: The analysis reveals that women account for approximately 60% of participants in state-supported retraining programs; however, the most commonly attended courses remain in traditionally female-dominated fields (e.g., accounting, administration, healthcare). Digital skills retraining is growing in popularity but still represents a small portion of the total. Interviews with participants highlighted three main barriers: limited course availability in smaller regions, lack of tailored support for mothers, and insufficient career guidance. Notably, women who completed digital retraining reported increased confidence, improved employability, and in some cases, significant career shifts. However, only a minority of these women were able to secure employment in the field of their new qualification. The role of NGOs and private initiatives (e.g., Czechitas) was evaluated as significantly more effective in providing flexible, well-structured, and gender-sensitive programs compared to public offerings.

Discussion: These findings underline the complexity of retraining women in a rapidly evolving labor market. While retraining improves women's self-perception and skills, structural barriers continue to limit its impact. One key issue is the mismatch between labor market demand and the nature of available retraining courses. Moreover, the lack of integrated support for mothers — such as childcare options or flexible learning formats — reduces participation among women with young children. The study confirms that NGOs and hybrid models of education offer more targeted and effective retraining pathways. However, scalability and sustainability of such models remain a challenge. To create a more inclusive labor market, public policy must integrate retraining into a broader strategy encompassing social services, digital infrastructure, and employer engagement.

Conclusions: Retraining of women in the Czech Republic holds strong potential for addressing both gender inequality and labor shortages in key sectors. Yet, the current system lacks alignment with the realities of women's lives and labor market dynamics. This study highlights the need for more accessible, flexible, and gender-sensitive retraining programs, particularly in the field of digital technologies. Policymakers, employers, and educational providers must collaborate to remove systemic barriers and ensure that retraining is not only available, but truly transformative for women’s career paths.

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A BIBLIOMETRIC APPROACH TO UNDERSTANDING CORRUPTION IN SUBSIDIES: PUBLICATIONS AND TRENDS OVER TIME

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Abstract

This paper presents a bibliometric analysis of research on corruption in subsidy systems from 1990–2025. Using Web of Science data and the Biblioshiny package in R, it maps publication trends, citation patterns, core journals, and international collaboration networks, offering a unique perspective by addressing previously unresolved questions about geographical publishing disparities and thematic coverage within this field. Results show a rapid increase in both publications and citations after 2010, with research concentrated in economics, political science, environmental studies, and business ethics. The United States, China and several European countries dominate output, while Africa and Latin America remain underrepresented. Keyword co-occurrence reveals thematic clusters around governance and performance, energy and environmental subsidies, agricultural policy, and inequality. The study identifies research gaps and suggests directions for future work to improve transparency, accountability, and the effectiveness of subsidy policies.

Key words: *corruption; subsidies; bibliometric analysis; public policy; governance; energy subsidies; agricultural policy*

1 INTRODUCTION

Subsidies are widely used policy instruments that support economic activity, reduce inequality, and promote social welfare. At the same time, they are highly vulnerable to corruption, which can distort allocation, create fiscal burdens, and erode public trust in government. Bribery, clientelism, and rent-seeking by politically connected actors may redirect public resources away from intended beneficiaries and undermine the original policy objectives of subsidy schemes. Research indicates that corruption can lead to significant inefficiencies, with studies showing that up to 30% of subsidy funds may be lost to corrupt practices in certain sectors. This quantifiable leakage highlights the scale of the problem, emphasising the need for robust anti-corruption measures.

Although corruption and public finance have been the subject of extensive research, studies explicitly focusing on corruption in subsidy systems remain fragmented across sectors such as agriculture, energy, and social welfare. Existing work is dispersed across multiple disciplines and journals, making it difficult to obtain a clear picture of how this research field has developed, who its main contributors are, and which themes dominate the debate. To navigate this fragmentation, a cross-disciplinary narrative could be constructed by integrating diverse perspectives under a unifying theoretical framework, such as agency theory. This lens can provide a cohesive framework for understanding how principal-agent dynamics operate across fragmented research areas, offering clearer insights into the systemic patterns of corruption associated with subsidies.

This paper addresses that gap by conducting a bibliometric analysis of publications on corruption in subsidies indexed in the Web of Science database between 1990 and 2025. Using the Biblioshiny package in R, it examines trends in scientific production and citations, identifies core journals, countries, and authors, and maps key thematic clusters related to governance, policy design, and the distributional and environmental impacts of subsidies. The findings provide a structured overview of the literature and point to research gaps, particularly the limited evidence from low- and middle-income countries. This research is particularly pertinent to ongoing policy debates, such as the World Trade Organisation's subsidy rules, which aim to balance the need for subsidies in economic development with their potential misuse due to corruption. By linking our analysis to such active reform agendas, we highlight the urgency of addressing these gaps to inform more effective policy-making.

2 THEORETICAL BACKGROUND

Corruption is commonly defined as the abuse of entrusted power for private gain and is widely recognised as an obstacle to growth, efficient public spending, and inclusive development (Mauro, 1995; Bardhan, 1997; Svensson, 2005). Empirical studies show that corruption reduces investment, increases transaction costs, and distorts the allocation of public resources (Mauro, 1995; Gupta et al., 2002). In subsidy systems, these distortions translate into fund leakage, weak targeting, and the reinforcement of existing inequalities, as benefits are diverted to politically connected or better-off groups (Gupta et al., 2002; Breen, 2019).

Theoretical explanations often draw on Principal–Agent theory and rent-seeking models. Principal–agent frameworks emphasise information asymmetries and weak monitoring, which allow public officials to pursue private benefits rather than social welfare (Jensen & Meckling, 1976; Jain, 2001). Rent-seeking theory highlights how economic actors invest resources to capture policy-generated rents, such as subsidies, rather than engage in productive activities (Krueger, 1974). In decentralised or weakly governed settings, this can be exacerbated by fragmented accountability and limited oversight (Fisman & Gatti, 2002; Dube & Sethi, 2018).

Subsidies themselves are widely used instruments to support strategic sectors, promote industrialisation, and protect vulnerable households (Birdsall & de la Torre, 2001; Harrison & Rodríguez-Clare, 2010; OECD, 2019). However, evidence from agriculture and energy shows that poorly governed subsidy schemes often benefit large firms and wealthy producers rather than low-income households, while also creating fiscal burdens and environmental externalities (Brennan, 2008; Arezki et al., 2015). This tension between policy objectives and implementation outcomes makes the interaction between corruption and subsidies a critical research topic.

Bibliometric methods provide a systematic way to map this dispersed literature by analysing citation links, co-authorship networks, and thematic structures (Small, 1973; Aria & Cuccurullo, 2017). Recent applications demonstrate how bibliometric tools can identify core themes, influential authors, and emerging research fronts in corruption studies (Gillespie & McWilliams, 2010; Aria & Cuccurullo, 2017). Applying these methods specifically to the nexus of corruption and subsidies can therefore clarify how the field has evolved and where essential research gaps remain.

3 DATA AND METHODOLOGY

This study is based on bibliographic records retrieved from the Web of Science Core Collection. The search combined keywords related to corruption and subsidies (e.g., corruption, bribery, rent-seeking with subsidies, subsidy schemes, state aid) to capture documents that explicitly address the interaction between these two phenomena rather than either in isolation. The time window was set to 1990–2025 to cover more than three decades of research.

The initial search results were exported from Web of Science and processed in the Biblioshiny interface of the Bibliometrix package for R (Aria & Cuccurullo, 2017). Duplicates were removed, and author names, journal titles, and institutional affiliations were standardised to reduce problems caused by spelling variations and inconsistent use of initials.

Records with missing fields were kept for basic descriptive statistics but excluded from analyses that required complete information, such as citation or keyword analysis.
To trace changes over time, the final dataset was divided into four sub-periods: 1990–1999, 2000–2009, 2010–2019, and 2020–2025. For each period, we computed indicators of scientific production (number of publications per year and document types) and citation impact (total citations and average citations per document).
The empirical strategy combines several bibliometric techniques. Descriptive statistics summarise publication and citation trends across time and disciplines. Citation analysis identifies highly cited documents, influential authors, and core journals in the field (Small, 1973). Authorship and country-level indicators are used to assess research productivity and international collaboration patterns.
Keyword frequency and co-occurrence analysis provide insight into the main thematic areas and their evolution, highlighting how governance, energy and agricultural subsidies, and inequality have emerged as central topics. Co-authorship and keyword co-occurrence networks are visualized using Biblioshiny to map the social and intellectual structure of the research field. Additionally, examining network centrality measures, such as betweenness centrality, can reveal which authors or countries act as key connectors in the collaboration landscape. Identifying these hidden gatekeepers can enrich our understanding of collaborative dynamics and encourage more inclusive research networks. Together, these methods offer a systematic overview of how the literature on corruption in subsidies has developed and identify critical research gaps.

4 RESULTS

4.1 Publication and Citation Trends

The analysis of annual scientific production shows a precise and rapid increase in the volume of publications on corruption in subsidies over the period 1990–2024. In the 1990s, only a handful of documents were published each year, indicating that the topic attracted limited academic attention (Figure 1). From around 2006 onwards, the number of articles began to rise steadily, and this trend accelerated after 2016. The sharpest increase is observed in the period 2020–2024, when the annual output reaches its highest levels.
This pattern is consistent with growing global concern about the fiscal, social, and environmental implications of subsidy policies and their vulnerability to corruption. The rapid growth in publications reflects intensified debates on public spending, transparency, and sustainable development, particularly in sectors such as energy and agriculture.
Citation data follow a similar trajectory. Both the total number of citations and the average number of citations per document increase markedly over time, with a pronounced rise after 2010. This fact suggests that research on corruption in subsidy systems has not only expanded in volume but has also gained influence within the broader literature on corruption, governance, and public finance. The combination of rising publication counts and growing citation impact indicates the emergence of corruption in subsidies as a distinct and relevant research field. However, it is essential to acknowledge that using field-normalised citation scores could provide a different perspective on this influence, potentially highlighting variations in impact across different fields of study.

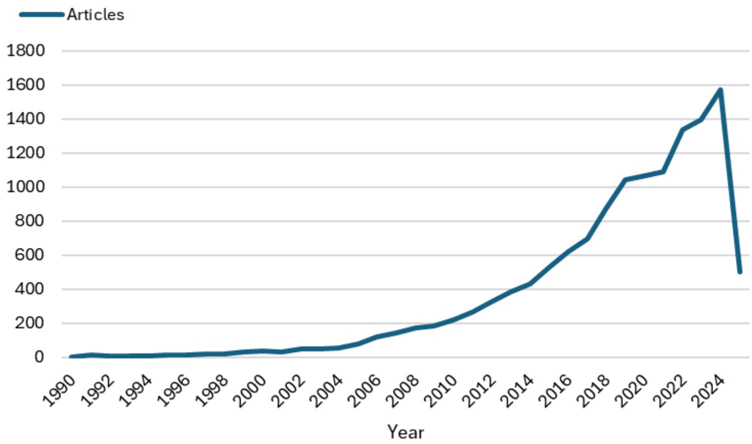

Figure 1: Annual scientific production on corruption and subsidies, 1990–2024. Source: Author's own elaboration based on Web of Science data using Biblioshiny (R package Bibliometrix)

Beyond the general upward trend, the graphs also reveal a particularly sharp spike in publications in the early 2020s. This surge is due to several overlapping developments: intensified debates on the fiscal sustainability of large subsidy programmes, mounting pressure to reform energy and agricultural subsidies in line with climate and environmental goals, and heightened public scrutiny of corruption in the wake of economic and political crises. A defining global event that contributed to this spike was the widespread implementation of COVID-19 relief subsidies. These emergency measures not only highlighted existing vulnerabilities in subsidy systems but also triggered significant public and academic interest in understanding and mitigating corruption risks associated with rapid policy responses. As these factors have pushed subsidy design and governance questions higher on policy agendas, there has been an acceleration of both publication and citation activity. The dynamics observed in 2022–2024, therefore, suggest that research on corruption in subsidies is not only expanding but also increasingly responsive to real-world shocks and reform debates.

4.2 Core Journals and Source Impact

The analysis of journal publications reveals significant growth in research on corruption in subsidies in a relatively small group of core outlets (Figure 2). Journals such as Sustainability, Energy Policy, World Development, Journal of Business Ethics, and Journal of Cleaner Production show a notable increase in the number of published articles over recent years.
These journals cover topics ranging from energy and environmental policy to development economics and business ethics, which reflects the interdisciplinary nature of the field. Energy Policy and Journal of Cleaner Production stand out with higher Impact Factors and H-indices, indicating that they host many of the most cited and influential articles on subsidy governance and corruption. Sustainability contributes significantly to the work at the intersection of subsidies, sustainable development, and environmental policy.

The upward trajectory of publications across these journals suggests a shift from sporadic case studies to a more systematic, cross-disciplinary research agenda. As global discussions on subsidy reform, climate policy, and responsible public spending intensify, these outlets have become central platforms for academic debate on corruption in subsidy systems.

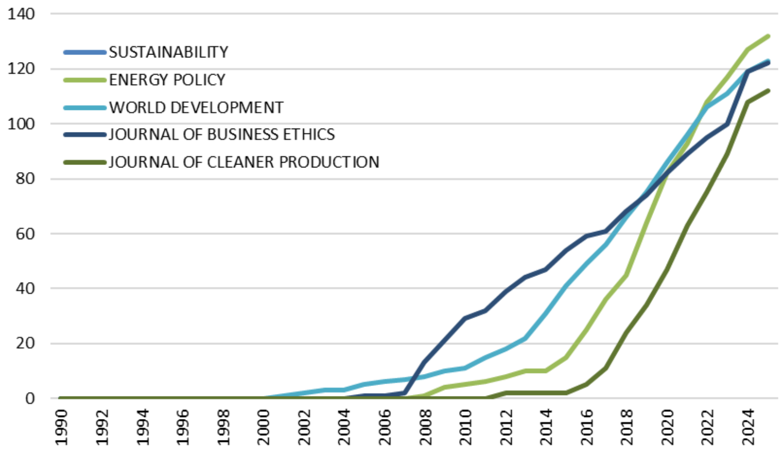

Figure 2 Most relevant journals publishing on corruption and subsidies, 1990–2024. Source: Author's own elaboration based on Web of Science data using Biblioshiny (R package Bibliometrix).

4.3 Geographical Distribution of Research Output

The global distribution of publications on corruption in subsidies is highly uneven (Figure 3). A world map of publication frequency shows that North America and East Asia are the primary drivers of scholarship in this area, with the United States and China emerging as the most prolific contributors. These countries have large and complex subsidy systems and host many influential universities and research institutions, which helps explain their leading role.

European countries, particularly Germany, France, and the United Kingdom, also exhibit substantial research activity, though at lower levels than those of the United States and China. Their contributions are closely linked to debates on the effectiveness and accountability of subsidy policies within the European Union, especially in agriculture and energy.

In contrast, Africa and Latin America exhibit relatively low publication frequencies despite the high practical relevance of subsidies and governance challenges in these regions. This gap likely reflects constraints related to research funding, academic capacity, and data availability. It also points to an essential imbalance in the evidence base: much of what we know about corruption in subsidies is driven by work from North America, Europe, and East Asia, while low- and middle-income regions remain underrepresented.

The geographical patterns observed in Figure 3 highlight the potential for future cross-regional collaboration. Strengthening research capacity and data collection in Africa and Latin America could address context-specific challenges and broaden the global understanding of how corruption affects subsidy systems.

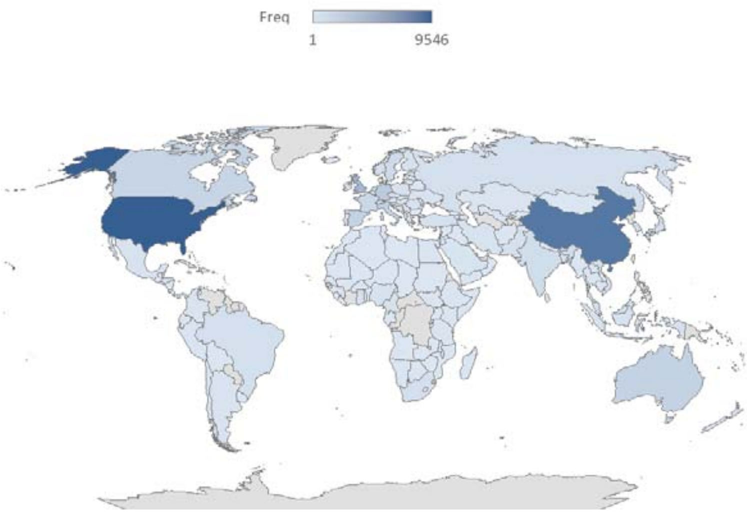

Figure 3 Global scientific production on corruption and subsidies by country, 1990–2024. Author's own elaboration based on Web of Science data using Biblioshiny (R package Bibliometrix).

4.4 Keyword Trends and Thematic Focus

Keyword analysis reveals how the literature on corruption and subsidies has evolved across core concepts, sectors, and policy debates. The most frequent author keywords, such as corruption, subsidies, governance, and institutions, form the conceptual backbone of the field and appear consistently across the whole period. Over time, they are increasingly complemented by terms related to energy, environmental policy, sustainability, and inequality, indicating a gradual shift towards governance and sustainability-oriented research questions. Taken together, the keyword trends and thematic maps illustrate how the field has shifted from a narrow focus on public finance to a broader agenda that links subsidies to development, distributional outcomes, and environmental challenges.

4.4.1 Evolution of Key Topics Over Time

The analysis of keyword trends over time reveals essential shifts in the academic focus surrounding corruption in subsidies (Figure 4). The term "corruption" shows the most pronounced increase, especially from the 2010s onwards, reflecting a growing interest in how corrupt practices shape the design and implementation of subsidy schemes. The keyword "subsidies" follows a similar upward pattern, indicating that many of these studies explicitly link corruption to subsidy systems rather than treating the two topics separately.
Other frequently used keywords, such as "governance", "performance", "policy", "determinants", "institutions", and "government", also show rising trends, though at varying intensities. Their growing presence suggests a stronger emphasis on understanding how institutional quality, policy design, and administrative capacity influence the effectiveness and fairness of subsidies.

In recent years, keywords related to sustainability, environmental policy, and energy subsidies become more prominent, signalling a shift towards integrating corruption and subsidy research with debates on climate change, energy transition, and sustainable development. Overall, Figure 4 documents a move from a relatively narrow focus on corruption and public finance to a broader agenda that connects subsidies with governance, distributional outcomes, and environmental impacts.

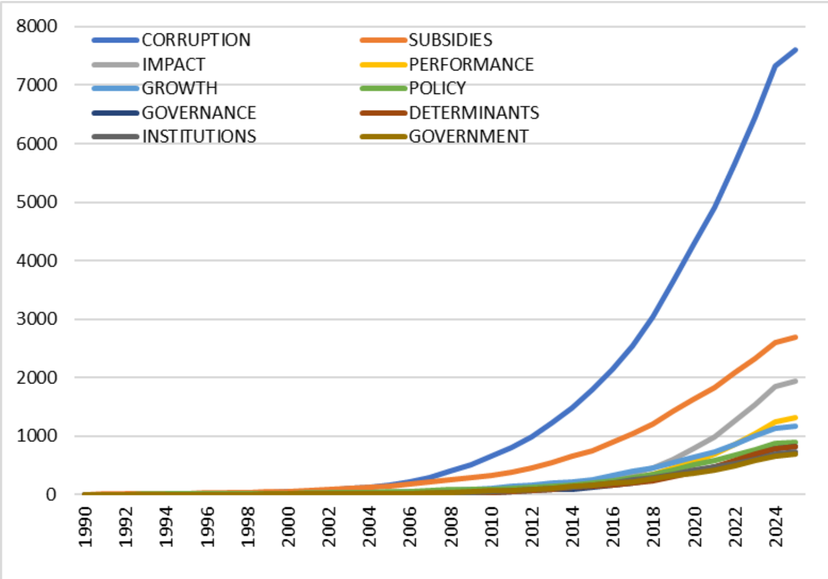

Figure 4 Temporal trends of the most frequent author keywords related to corruption and subsidies, 1990–2024. Source: Author's own elaboration based on Web of Science data using Biblioshiny (R package Bibliometrix).

4.4.2 Keyword Co-occurrence Network

The co-occurrence network provides a more detailed picture of how key concepts relate within the literature (Figure 5). The central node "corruption" is closely linked to terms such as "performance", "impact", "governance", and "institutions", indicating that many studies investigate the consequences of corruption for economic outcomes and policy effectiveness.

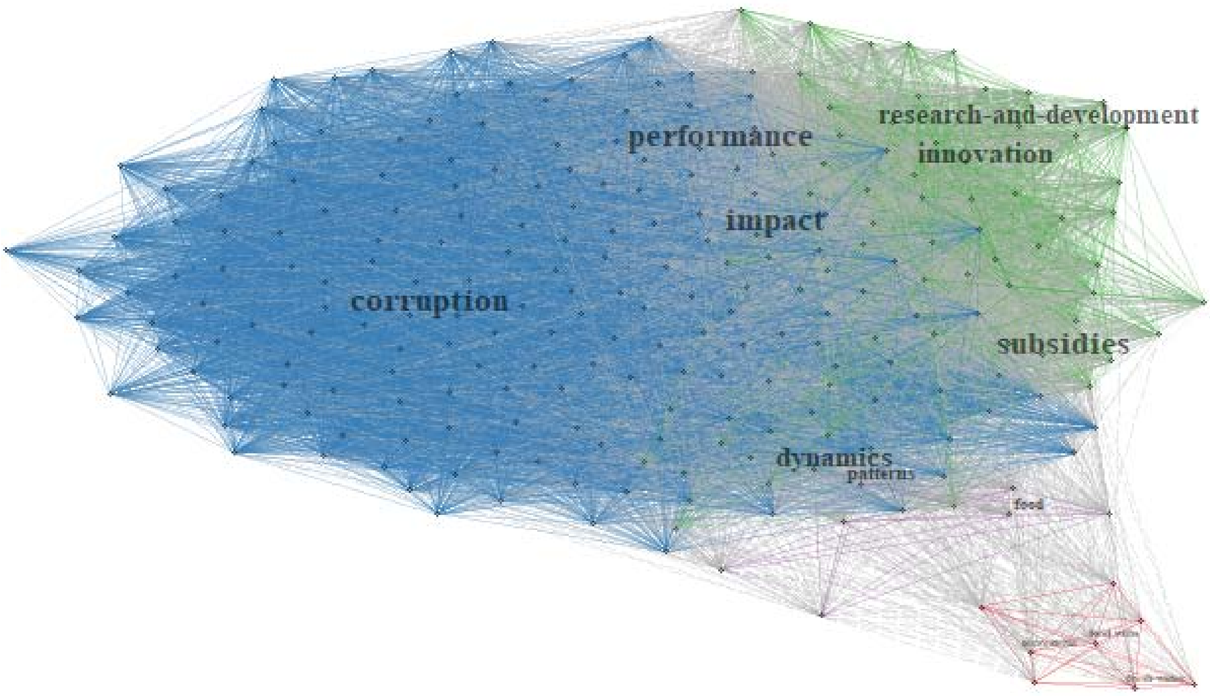

Figure 5 Keyword co-occurrence network in the literature on corruption and subsidies. Author's own elaboration based on Web of Science data using Biblioshiny (R package Bibliometrix).

A distinct cluster groups keywords like “subsidies”, “research and development”, “innovation”, and “economic growth”, highlighting work on the role of subsidies in promoting (or hindering) innovation and long-term development. Another cluster around “food” and “agriculture” points to a specific focus on agricultural subsidies and food security, particularly in countries where these programmes are extensive and politically sensitive.

The structure of Figure 5 underscores the multi-dimensional nature of the field: corruption in subsidy systems is analysed not only as a governance issue but also in relation to growth, inequality, innovation, and sectoral policies.

4.4.3 Trend Topics and Thematic Development

The trend topics visualisation further clarifies how thematic priorities have evolved (Figure 6). Earlier years are dominated by general notions such as “government”, “trade policy”, and “subsidies”, while later periods see a substantial rise in topics like “corruption”, “governance”, “performance”, and “policy reform”. More recently, terms related to “environmental policy”, “eco-innovation”, and “sustainability” become increasingly frequent, reflecting the integration of environmental and climate concerns into the study of subsidy systems.

Together, Figures 4–6 show that the literature has gradually shifted from basic discussions of subsidy mechanisms and public finance towards a more complex, governance- and sustainability-oriented research agenda. Corruption is understood as a key determinant of whether subsidy policies support or undermine broader objectives such as economic development, social justice, and environmental protection.

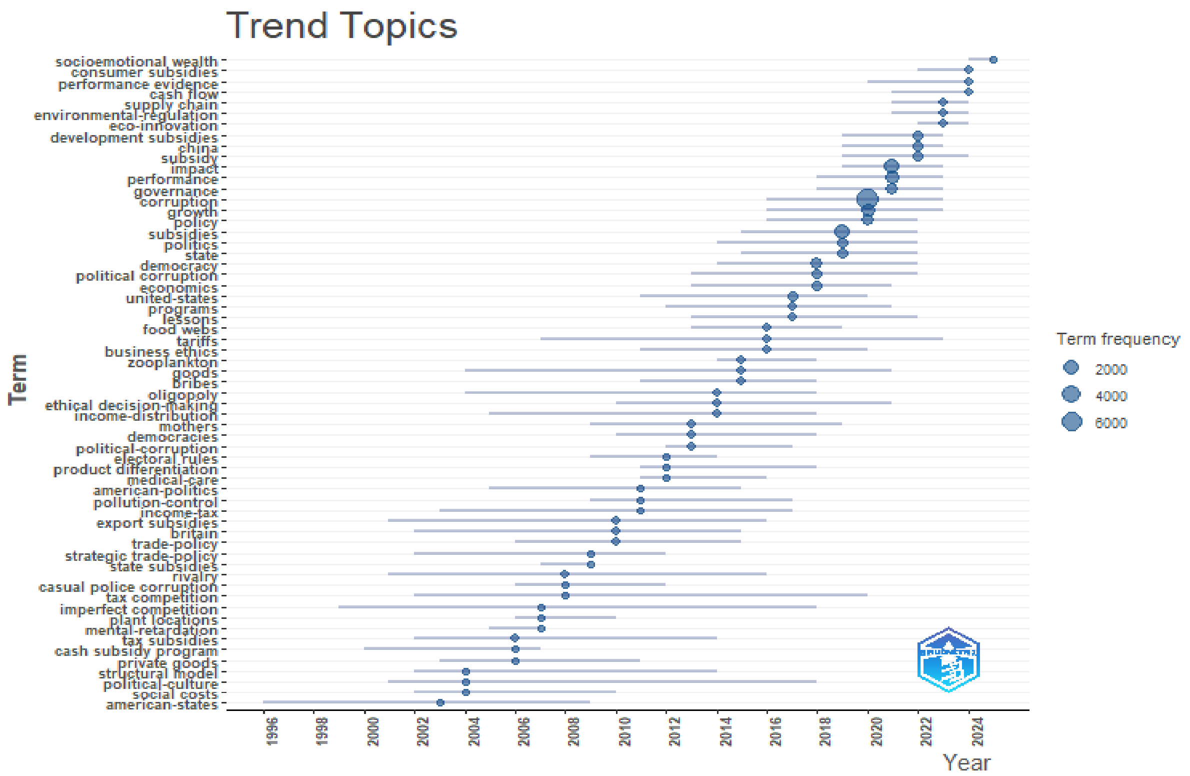

Figure 6 Temporal trends of the most frequent author keywords related to corruption and subsidies, 1990–2024. Author’s own elaboration based on Web of Science data using Biblioshiny (R package Bibliometrix).

4.5 Research Gaps

Across publication patterns, country distributions, and keyword analyses, several research gaps emerge. First, the geographical concentration of studies in high-income countries contrasts with the limited evidence from low- and middle-income economies, particularly in Africa and Latin America, where subsidy systems and governance problems are often highly relevant. Second, cross-country and comparative analyses remain relatively scarce compared to single-country or sector-specific case studies, limiting the ability to draw broader conclusions about how institutional quality and political context shape corruption in subsidy schemes. Third, only a small part of the literature explicitly evaluates the impact of anti-corruption, transparency or digitalisation reforms on the performance and targeting of subsidies.

These gaps suggest promising directions for future research. More work is needed on underrepresented regions, on systematic cross-country comparisons, and on the design and effectiveness of concrete policy interventions to reduce corruption in subsidy systems while supporting sustainable and inclusive development.

The distribution by subject area confirms this pattern. Economics and business, environmental sciences, and public administration are the most represented fields, while law and regional studies appear as smaller but growing niches. This suggests that research on corruption in subsidies increasingly connects with debates on sustainability, climate policy, and regulatory quality.

5 CONCLUSION

This paper provides a bibliometric overview of the literature on corruption in subsidy systems over the period 1990–2024, using data from the Web of Science and the Biblioshiny tool in R. The results show an apparent, accelerating increase in both scientific production and citation impact, particularly after 2010, indicating that the intersection of subsidies and corruption has become an increasingly important topic in academic debates. The growth in publications is accompanied by a gradual shift from sporadic case studies to a more structured and interdisciplinary research field.

The analysis of journals and subject areas highlights a small group of core outlets in economics, environmental studies, development and business ethics that have become central platforms for this research. At the same time, the geographical distribution of publications shows an intense concentration in high-income countries such as the United States, China, and several European economies, while many low- and middle-income regions remain underrepresented. Co-authorship patterns suggest that international collaboration is growing, but still predominantly within and between advanced economies.

Keyword trends and thematic maps indicate that the literature has shifted from a narrow focus on corruption and public finance to a broader agenda that links subsidy systems to governance, institutional quality, inequality, and environmental challenges. Governance and energy-related topics act as "motor themes," while agricultural subsidies, social policy, and regional issues appear as essential but less developed areas. Across these dimensions, several gaps emerge: limited evidence from underrepresented regions, a relative scarcity of comparative cross-country studies, and only modest attention to the evaluation of concrete anti-corruption and transparency reforms. Notably, of the numerous studies reviewed, only about 15% conduct cross-country analyses, highlighting the significant gap in comparative research that is critical for understanding the nuances of corruption across different national contexts.

Future research could address these gaps by strengthening empirical work in low- and middle-income countries, developing systematic comparative analyses of institutional and political determinants of corruption in subsidy schemes, and assessing the effectiveness of policy instruments aimed at improving transparency, targeting and accountability. By doing so, the academic literature can provide more robust guidance for policymakers seeking to design subsidy systems that support, rather than undermine, sustainable and inclusive development.

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THE ROLE OF HOUSEHOLD DEPOSITS IN THE LIABILITY STRUCTURE OF SLOVAK BANKS[1]

Miloslav Paracka

Abstract

This paper examines how household deposits shaped the funding structure of Slovak banks between 2004 and 2024 under shifting monetary policy regimes. Descriptive and correlation evidence shows that deposits remained the dominant and most resilient liability component, with their average share rising from 27.8 % before the crisis to 42.7 % during quantitative easing. Yet deposit growth did not fully satisfy credit demand, prompting greater use of long-term market instruments aligned with regulatory reforms such as the NSFR. A strong negative correlation between ECB rates and deposit shares indicates that low-rate environments reinforced the stabilizing role of household deposits. The findings highlight both the strengths and limits of deposit-based funding in periods of unconventional monetary policy.

Keywords: *Household Deposits, Bank Liability Structure, Unconventional Monetary Policy, Funding Stability*

1 INTRODUCTION

The stability of the banking sector is a cornerstone of financial system resilience and economic performance. One of the most critical components of bank funding structures are household deposits, which provide a stable, low-cost, and widely accessible source of financing. Periods of financial turbulence and unconventional monetary policy (UMP), such as the global financial crisis, the era of quantitative easing (QE), and the COVID-19 pandemic, have highlighted the importance of stable funding sources in ensuring credit provision to clients and liquidity management. Despite the expansion of central bank balance sheets and the introduction of alternative funding mechanisms, retail deposits have remained a core element of banking sector liabilities across much of the euro area, including Slovakia.

This paper investigates the role of household deposits in the funding strategies of Slovak banks between 2004 and 2024. We focus on the changing composition of bank liabilities, with particular emphasis on whether and to what extent household deposits were substituted or complemented by other sources such as central bank liquidity, interbank funding, or market-based instruments during periods of UMP. Our central hypothesis is that household deposits play a key role in supporting the provision of credit to the economy, particularly under conditions of low interest rates and heightened financial uncertainty.

The motivation behind this study stems from the need to better understand the interaction between monetary policy and bank funding composition in a small open economy within the euro area. While substantial literature has examined the asset side of bank balance sheets, fewer studies focus on the liability side and its evolution during major policy shifts. This perspective is particularly relevant in the context of regulatory incentives favoring stable retail funding, such as the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR).

Our findings confirm that household deposits consistently represented the largest share of bank liabilities in Slovakia, even during phases of heightened uncertainty. However, we also observe that deposit growth alone was insufficient to fully finance credit expansion during the QE era, leading banks to increasingly rely on long-term market-based funding. Correlation

[1] This paper is an output of the science project VEGA 1/0639/24 Financial innovations, digitalization and financial literacy as accelerators of economic recovery in a competitive environment with economic imbalances.

analysis further suggests a strong negative relationship between deposit shares and ECB policy rates, indicating that low-rate environments were associated with a higher reliance on household deposits.

The remainder of the paper is structured as follows: Section 2 provides a theoretical and empirical literature review on household deposits and bank funding models. Section 3 describes the data sources and methodological approach. Section 4 presents and interprets empirical results. Section 5 concludes with implications for future research.

2 RELATIONSHIP TO THE LITERATURE

The Great Depression served as a primary motivation for the work of Nobel laureates Bernanke, Diamond, and Dybvig. It was likely the first financial crisis to be examined in detail by academic scholars, who sought to understand why banks exist and how bank failures can have severe macroeconomic consequences. Banks frequently occupy a central role in financial crises; indeed, some empirical research defines such crises by the presence of banking panics and systemic runs.

Modern banking operates on a two-tiered structure: depositors (typically households) place funds into banks, which then lend loans to borrowers, such as entrepreneurs. The interconnectedness of banks' assets and liabilities makes it problematic to analyze only one side of the balance sheet (He, 2023). Unlike non-financial firms, banks' balance sheets are dominated by external funds, mainly small household deposits, making them structurally asymmetric. Belas (2009) distinguishes between financing risk, the ability to meet obligations, and liquidity risk, the ability to sell assets at fair value.

Deposits are the most common liabilities held by banks and represent a special form of debt. Some are demand deposits, meaning they can be withdrawn at any time, unlike fixed-term debt contracts, which may incur penalties for early withdrawal. This liquidity feature allows banks to offer an optimal solution to consumers facing uncertainty about the timing of their consumption needs, e.g., a medical emergency (He, 2023).

Both household and corporate deposits form the core of bank funding. While demand deposits may seem unstable, they often persist and provide low-cost financing. Deposit protection schemes have helped reinforce public trust in the banking system. However, they can also create moral hazard, as depositors may prefer riskier banks offering higher interest rates (Horvatova, 2009). Bank runs occur when depositors withdraw funds from banks out of fear. Iyer (2012) finds that uninsured depositors are most prone to panic, and while deposit insurance helps, it is only partially effective. Strong bank-depositor relationships and depositor social networks also play crucial roles in reducing fragility. Notably, depositors who flee during a bank run seldom return.

Overreliance on interbank lending has historically reduced banks' resilience to liquidity shocks, prompting intervention from central banks and governments. Regulations such as CRD IV, including LCR (Liquidity Coverage Ratio) and NSFR (Net Stable Funding Ratio), aim to shift banks back toward stable retail deposits. Kochaniak (2016) finds that large deposits (100t - 500t EUR) are significantly more vulnerable to outflows, and those exceeding 500t EUR carry even higher risk. Their occurrence is determined by factors such as households' wealth and socio-demographic characteristics.

Every household tries to maintain a balance between risks and returns. At the same time, there is also a desire to maintain some part of the assets in liquid assets through various schemes of deposit facilities. Households are supposed to be concerned with return, risk, and liquidity aspects of their assets. It is expected that they will move from low-yielding bank deposits towards high yielding financial instruments. Long-term data show that households still prefer the safe channel of bank deposits rather than building an investment portfolio. Variables like income and inflation are statistically significant determinants of savings. Among other factors, he mentions macroeconomic stability, proportion of working population to total population, social influences, and tax benefits (Pati, 2011). Bank deposits, whether current, savings, or term, are a stable and low-cost source of funding for banks, though they yield low returns for households. The determinants of deposit behavior are typically studied through money demand or consumption theories, using demographic and economic variables. Pitonakova (2016) finds that real interest rate, elderly dependency ratio, inflation, and gross disposable income boost deposits, while income growth reduces household deposits.

A major motivation for saving by individuals is to smooth out consumption over time based on anticipated lifetime income. The general life-cycle model suggests that individuals smooth consumption over time by considering anticipated changes in household resources, the expected rate of return on savings, and the assessments of how the future pattern of income and consumption would be affected by government policy, particularly government saving and dissaving. The saving rate changes systematically over the individual's lifetime. The saving rate is directly influenced by the distribution of income by age. In general, young people save relatively little as they anticipate increases in their future incomes. Middle-aged people, who are nearing the peak of their earnings, tend to save the most, in anticipation of relatively low incomes after retirement. The elderly tend to have a low, or even a negative, saving rate, although the desire to leave a bequest or to cover the contingency of living longer than expected could provide motivation for saving even after retirement (Aghevli, 1990). Callen (1997) analyzes the determinants of household saving using data from 21 OECD countries for 1975-95. He extends the usual set of explanatory variables like inflation, unemployment, the real interest rate, and financial deregulation. He is focusing particularly on the influence of the tax and social security system. These variables are found to have an important impact on household savings. He confirms that a higher reliance on direct income taxes is associated with lower saving, and higher government transfers to households are also associated with lower saving.

3 DESIGN OF OBSERVATIONS

This study explores the evolving role of household deposits in the liability structure of the Slovak banking sector and examines their interaction with central bank liquidity instruments under different monetary regimes. The analysis is based on annual data for the period 2004 to 2024, obtained from the statistical databases of NBS and ECB. Specifically, we focus on the liability structure of monetary financial institutions (MFIs).

Our primary variable of interest is the share of household deposits in the total liabilities, where we exclude non-profit institutions serving households (NPISH) and self-employed households, whose financial behavior may be influenced by entrepreneurial activity. This variable is analyzed alongside other funding sources on the liability side. On the asset side, the analysis includes the volume of debt securities held by banks, used as a proxy for the effects of the ECB asset purchase programs under QE. To capture changes in monetary conditions, two official ECB interest rates are used, the main refinancing rate and the deposit facility rate. In addition, a custom composite policy rate is constructed for analytical purposes. This composite rate uses the main refinancing rate up to 2013 and the deposit facility rate from 2014 onward to reflect the shift in the operation framework of monetary policy associated with the QE era.

Capture the dynamics observed in the data, the full period is segmented into six analytically relevant sub-periods: the phase of conventional monetary policy (2004–2007), the global financial crisis (2008–2009), the sovereign debt crisis (2010–2013), the quantitative easing (2014–2019), the COVID-19 pandemic (2020–2021), and the post-COVID normalization period (2022–2024). These periods reflect shifts in the monetary environment and allow for a more structured comparison of trends in bank funding behavior.

The empirical approach follows a four-step strategy. First, we conduct a descriptive data analysis to capture changes in the share of household deposits over time and to identify compensating funding sources when household deposits decline. Second, we employ graphical decomposition of liability-side components to assess whether household deposits were substituted or complemented by other funding sources such as central bank liquidity or market-based instruments. Third, we evaluate the funding gap by comparing the growth of deposits with the growth of loans, capturing periods in which household deposits were insufficient to meet credit demand. Finally, we estimate correlations between the ECB's key interest rate and the deposit share to capture the monetary sensitivity of household funding behavior. For this purpose, correlations are computed separately for the main refinancing rate, the deposit facility rate, and the custom composite rate.

All monetary variables are expressed in nominal terms and compared in relative terms (as shares of total liabilities or assets), eliminating the need for inflation adjustment. This allows for consistent interpretation across periods. The analytical framework remains descriptive and correlation-based, avoiding causal inference. Nevertheless, the period-specific contrasts enable meaningful insights into the funding strategies of banks.

4 RESULTS

The importance of household deposits within the liability structure of the banking sector has been widely discussed in the literature, particularly in relation to financial stability and credit provision (He, 2023; Kochaniak, 2016). As emphasized in the theoretical framework, household deposits represent a stable and low-cost source of funding, crucial for mitigating liquidity risk and supporting banks' lending capacity.

The empirical findings presented in Table 1 confirm this theoretical perspective. Analysis of the Slovak banking sector's liability structure over the period 2004-2024 reveals a consistent dominance of household deposits. Throughout the observed periods, household deposits accounted for the largest share of bank liabilities, peaking at 42,7% during the quantitative easing phase (2014–2019). Even during episodes of elevated uncertainty, such as the global financial crisis (2008–2009) and the COVID-19 pandemic (2020–2021), household deposits remained a stable and resilient funding source, maintaining a share above 36%. During the pre-crisis phase of conventional monetary policy (2004 – 2007), household deposits accounted for 27,8% of total liabilities. The subsequent rise in their importance during the QE era can be attributed to persistently low interest rates, which diminished the attractiveness of alternative investments and incentivized households to retain savings in bank accounts. Additionally, deposit protection schemes likely reinforced public trust, further supporting inflows.

From a monetarist viewpoint, this development might seem counterintuitive, as lower interest rates are traditionally associated with reduced incentives to save and increased consumption. However, the data suggest that household saving behavior is influenced by a broader set of factors. In particular, precautionary saving motives and liquidity of deposits appear to have outweighed the disincentivizing effect of low interest rates.

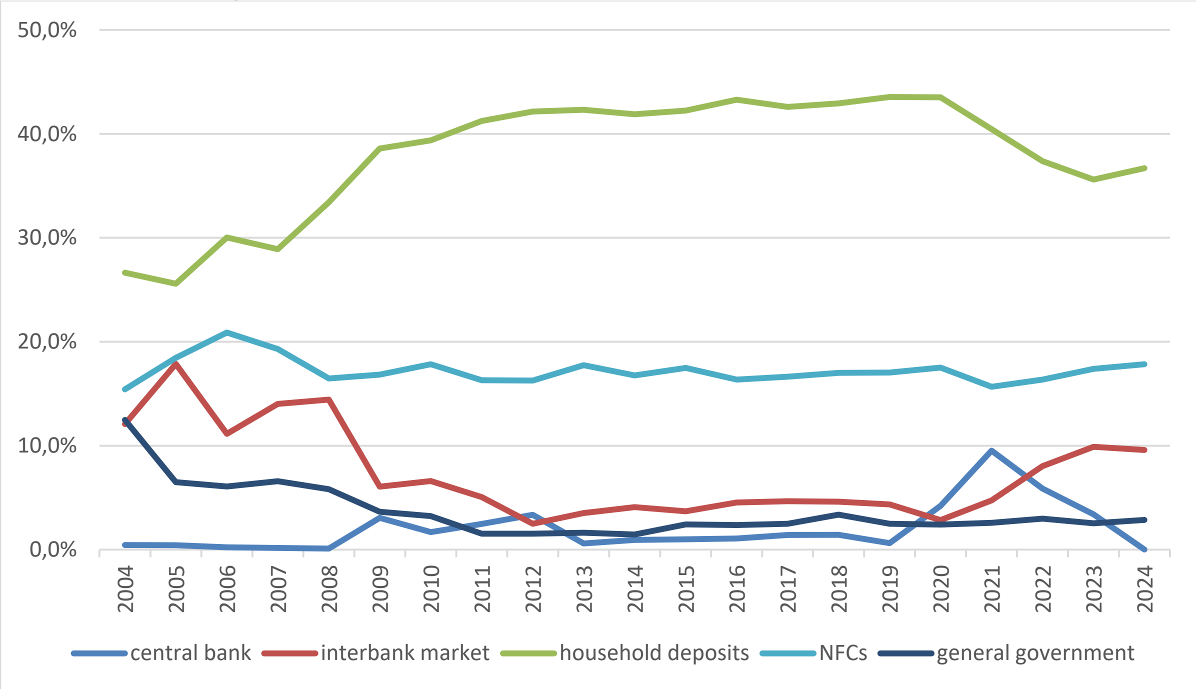
Table 1. Average share of selected items on liabilities side of Slovak banking sector's balance sheet in observed periods.

	Conventional monetary policy	Global financial crises	Debt crises	Quantitative easing	COVID-19	post-COVID
	(2004-2007)	(2008-2009)	(2010-2013)	(2014-2019)	(2020-2021)	(2022-2024)
central bank	0,3%	1,6%	2,0%	1,1%	6,9%	3,1%
interbank market	13,8%	10,3%	4,4%	4,3%	3,8%	9,2%
household deposits	27,8%	36,0%	41,3%	42,7%	42,0%	36,6%
NFCs	18,5%	16,7%	17,0%	16,9%	16,6%	17,2%
financial corporations	2,6%	3,1%	5,4%	5,1%	2,5%	3,0%
general government	7,9%	4,7%	2,0%	2,4%	2,5%	2,8%
debt securities issued	4,0%	6,0%	6,1%	6,7%	7,5%	10,0%
regulatory capital	7,9%	8,7%	10,7%	10,7%	9,7%	9,5%

Source: NBS 2025, own calculation

In contrast, reliance on interbank markets and central bank funding exhibited greater volatility, reflecting their more volatile and situational nature. Notably, despite the implementation of unconventional monetary policy during the QE period, central bank funding remained marginal, averaging just 1.1% of total liabilities. This limited reliance may be explained by the specific design of the ECB's asset purchase programs, which operated primarily through secondary markets rather than direct liquidity provision to domestic banks. Furthermore, the relative stability and liquidity of the Slovak banking sector during this time reduced the necessity for central bank support. Consequently, banks continued to favor household deposits as a more stable and cost-effective funding source, aligned with regulatory incentives and long-term funding strategies. These findings reinforce the view that retail deposits play a strategic role in credit provision and overall financial system resilience.
A comparison of liability composition across different monetary policy regimes (see Figure 1) highlights several notable shifts. Between the periods of conventional monetary policy (2004-2007) and quantitative easing (2014-2019), the share of household deposits rose from 27.8% to 42.7%, a 15-percentage point increase. This expansion compensated for the decline in other funding sources. Interbank funding fell from 13.8% to 4.3%9(5%), reflecting a broader post-crisis aversion to short-term and unstable funding channels.

Figure 1. Development of the share of household deposits and affected items on the liabilities side of the banking sector's balance sheet.



Source: NBS 2025, own calculation

Similarly, funding from the general government dropped from 7.9% to 2.4% (5.5%), while liabilities from non-financial corporations declined modestly from 18.5% to 16.9% (1.6%). These shifts suggest that banks strategically restructured their liability mix during the QE era, relying more heavily on household deposits in response to regulatory incentives promoting long-term retail funding, and reflect a broader post-crisis adjustment in bank liability management. In the post-COVID period (2022–2024), however, some of these trends partially reversed, with the shares of interbank and corporate funding regaining relative importance, while the share of household deposits declined to 36.6%.

Table 2. Average annual growth of household deposits and loans to customers of Slovak banking sector's balance sheet.

	Conventional monetary policy (2004-2007)	Global financial crises (2008-2009)	Debt crises (2010-2013)	Quantitative easing (2014-2019)	COVID-19 (2020-2021)	post-COVID (2022-2024)
loans to customers	31,1%	7,0%	5,6%	8,8%	6,2%	5,7%
household deposits	10,8%	14,0%	5,2%	6,5%	7,0%	2,2%

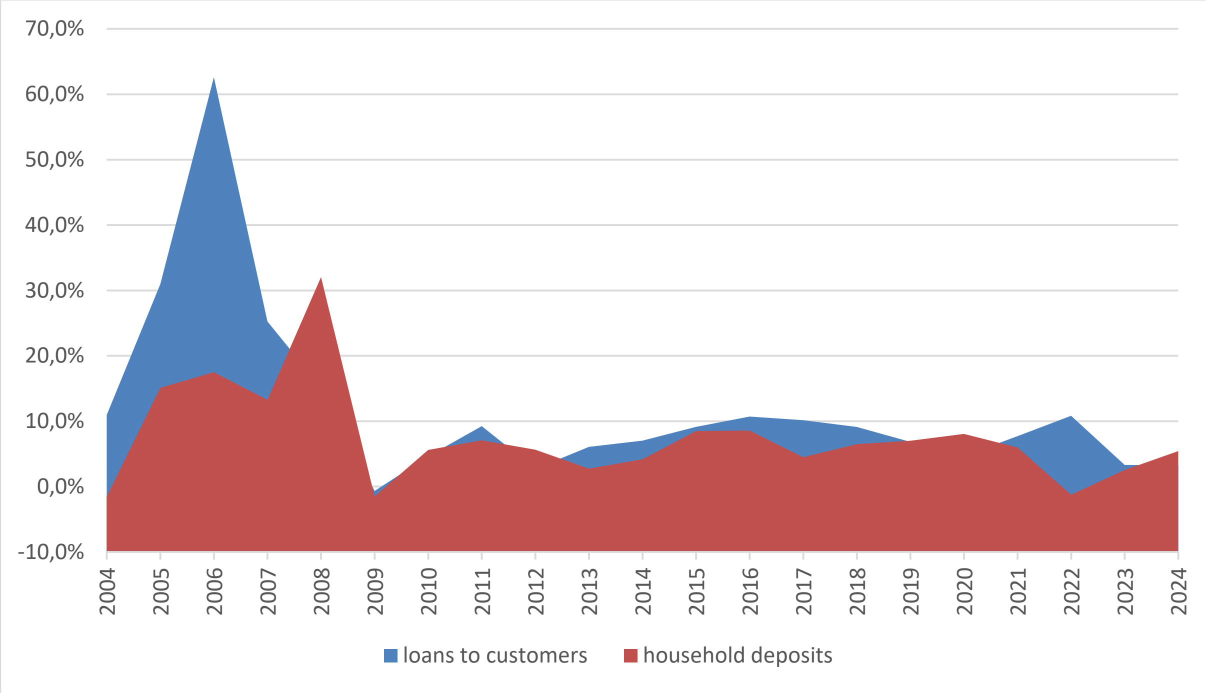
Source: NBS 2025, own calculation

Table 2 further explores these dynamics by comparing average annual growth rates of household deposits and loans to customers. It reveals important insights into the funding dynamics. During the conventional policy period (2004–2007), loans to customers expanded at an average annual rate of 31.1%, while household deposits grew by just 10.8%. This large gap suggests that banks relied extensively on alternative funding sources to support credit growth. By contrast, during QE (2014–2019), loan growth slowed to 8.8%, while household deposits grew by 6.5% per year. Although the gap between credit growth and deposit growth narrowed, it remained present (see Figure 2). Notably, this occurred even though household deposits reached their highest structural share in the liability side of the banking sector's balance sheet during this period. This indicates that even though household deposits became the dominant funding source in relative terms, they were not sufficient to fully cover the pace of credit expansion. The environment of persistently low interest rates likely stimulated loan demand more strongly than it encouraged deposit accumulation. Thus, banks continued to rely on complementary funding sources to bridge the gap between credit growth and deposit inflows, highlighting the limits of retail funding in supporting credit expansion under unconventional monetary policy conditions.

This mismatch is further reflected in the growing use of market-based instruments. The share of debt securities issued rose steadily, from 4.0% in the conventional policy period to 6.7% during QE, and further to 10.0% in the post-COVID period. This trend suggests a growing reliance on long-term market-based funding to support credit expansion when retail deposits alone were not sufficient. Simultaneously, the share of regulatory capital rose from 7.9% to 10.7% between 2004 and 2013, stabilizing during the QE period and slightly declining thereafter. This points to banks' efforts to strengthen their capital buffers in response to post-crisis regulatory requirements, while also maintaining sufficient buffers to absorb credit risk. Notably, only during the period of QE did the volume of government bonds in banks' portfolios decline, by 3,2% on average during the observed period of quantitative easing, while in other periods it grew. This suggests that QE in the euro area operates mainly through secondary market purchases of government bonds by the ECB, rather than direct liquidity provision to banks. As a result, banks sold part of their bond holdings, freeing up liquidity to support lending.

Together, these developments highlight that while household deposits served as a central pillar of bank funding, they were complemented by additional operations to ensure the sustainability of credit growth under unconventional monetary policy conditions.

Figure 2. Annual growth rate of loans to customers and household deposits of the banking sector's balance sheet.



Source: NBS 2025, own calculation

To better understand the interaction between monetary policy and bank funding structures, a correlation analysis was conducted between the share of household deposits and key ECB interest rates. The correlation with the main refinancing rate over the full period (2004–2024) was −71.4%, while the correlation with the deposit facility rate was −63.1%. To reflect the structural shift in the monetary policy environment after 2015, marked by excess liquidity, a composite rate was constructed, using the main refinancing rate until 2013 and the deposit facility rate from 2014 onward. This combined indicator showed the strongest negative correlation at −74.1%, confirming that prolonged low-rate conditions, particularly under QE, were closely associated with a rising share of household deposits in bank liabilities. These findings highlight how the ECB's accommodative stance indirectly reshaped bank funding models by reinforcing the strategic role of retail deposits.

5 CONCLUDING REMARKS

While the broader implications of UMP have been widely studied, research focusing specifically on household deposits remains limited. This gap underscores the need for more targeted research. This study places particular emphasis on household bank deposits, a core component of household savings, and examines their role in sustaining credit provision in a prolonged low-interest rate environment. We evaluate the implications of this dynamic for the funding structure of the banking sector.

Historically, excessive reliance on interbank borrowing, central bank refinancing, and foreign currency funding was identified as a major contributor to systemic vulnerabilities during the global financial crisis (IMF, 2013). However, the relationship between banks' liability structures and systemic financial stability remains insufficiently understood. Moreover, the role of monetary policy in shaping this relationship is even less established (Choi & Choi, 2021).

Against this backdrop, our study investigates the evolving role of household deposits in the funding structure of the Slovak banking sector from 2004 to 2024, with particular attention to how different monetary policy regimes influenced their position. Empirical results confirm that household deposits consistently served as the dominant source of bank liabilities. During the period of QE, their average share reached 42.7%, up from 27.8% in the era of conventional monetary policy (2004-2007). During this time, household deposits primarily compensated for the declining interbank funding, a reduction in resources from the general government, and, to a lesser extent, decreased funding from NFCs. Even amid periods of heightened uncertainty, such as the global financial crisis and the COVID-19 pandemic, household deposit shares remained resilient, consistently exceeding 36%.

Despite their structural dominance, household deposits proved insufficient to fully finance credit expansion during phases of strong lending growth. For instance, between 2014 and 2019, bank loans to customers expanded at an average annual rate of 8.8%, while household deposits increased by only 6.5%, resulting in a funding gap. In response, banks increased their reliance on long-term market-based debt instruments, whose share in total liabilities rose from 4.0% to 6.7% during QE, and further to 10.0% in the post-COVID period. At the same time, regulatory capital strengthened in line with post-crisis reforms, particularly those under Basel III, aimed at enhancing financial system resilience. The increasing reliance on household deposits and long-term debt securities also aligns with the objectives of the Net Stable Funding Ratio (NSFR), which assigns higher stability weights to retail deposits and bonds with maturities exceeding one year. This regulatory framework encouraged banks to shift away from more volatile short-term instruments in favor of stable, longer-term funding sources. As a result, capital adequacy peaked at 10.7% before stabilizing, and debt securities continued to grow steadily, while household deposits retained their structurally dominant position.

Interestingly, only during the QE period did banks reduce their holdings of government bonds, which declined by an average of 3.2%. In all other periods, bond holdings increased. This suggests that QE in the euro area primarily operated through secondary market purchases by the ECB, rather than through direct liquidity injections to banks. Consequently, banks sold portions of their bond portfolios, thereby freeing up liquidity to support lending activity.

Importantly, correlation analysis reveals a strong negative relationship (-74.1%) between ECB policy rates and the share of household deposits in bank liabilities. This indicates that lower policy rates were associated with a higher reliance on household deposits, suggesting a stabilizing effect of accommodative monetary policy on bank funding composition. However, the findings also reveal important limitations. Even at their peak, household deposits alone were insufficient to sustain the full scale of credit expansion. Thus, while they enhance the resilience and stability of the banking system, they do not guarantee sufficient funding under conditions of UMP.

Given the limitations of macro-level data, future research should explore household deposit behavior using micro-level datasets that incorporate wealth, demographic, financial, and economic dimensions. Additionally, cross-country comparative analyses within the euro area could provide additional insights into how national context shapes the transmission of UMP to bank funding behavior.

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THE IMPACT OF THE EUROPEAN STRUCTURAL AND INVESTMENT FUNDS ON INNOVATION PERFORMANCE

Tatiana Taňkošová, Ján Buleca

Abstract

European Structural and Investment Funds (ESIF) constitute a key investment instrument of the European Union's cohesion policy, influencing the innovation performance of its Member States. This article analyses the relationship between cohesion investments and the innovation performance of the European Union (EU). The aim of the study is to assess the role of ESIF in shaping innovation outcomes across EU countries. The analysis draws on data from the European Commission, Eurostat, the European Innovation Scoreboard and the European Patent Office, capturing fund absorption, research and development expenditures, and patenting activity. Cluster analysis is applied to identify patterns in innovation performance and in the absorption of ESIF. The findings indicate that ESIF contribute to strengthening innovation capacity, while significant disparities across groups of Member States persist.

Keywords: *European Structural and Investment Funds, innovation performance, innovation, European Union*

1 INTRODUCTION

Contemporary society often perceives money as the driving force of development, a view supported by the historical significance of trade. The European Union (EU), originally founded to preserve peace through economic interdependence, has substantially accelerated the development of its member states and established an economic and monetary union. The EU's common budget and particularly the European Structural and Investment Funds (ESIF) plays a crucial role in supporting growth, including science, research, and innovation, which enhance competitiveness. The main objective of this article is to assess the importance of these funds for innovation performance. Innovation represents a key prerequisite for long-term competitiveness and economic resilience. Despite shared strategic objectives, substantial differences in the innovation performance of Member States persist, reflecting variations in economic structures, available resources, and capacities for research and development. ESIF therefore play a crucial role particularly in countries that lack sufficient domestic resources to support research, development, and innovation. It represents one of the main instruments of financing in countries and regions with limited domestic resources to support research, development, and innovation. Enhancing innovation performance is also a long-term strategic objective of the EU, as reflected in its programme documents, smart specialisation mechanisms, and emphasis on reducing regional disparities. Therefore, we analyse their significance within the context of innovation performance in EU-15 and EU-CEE countries as well as at the level of EU Member States.

The article is divided into three main chapters. Literature review describes current state of knowledge on the topic and the theoretical background. The methodological section outlines the procedures of the qualitative and quantitative analyses, descriptive statistics, comparisons, and cluster analysis using data from Eurostat. The analytical section evaluates the allocation and absorption of the funds at the level of EU member states, compares the EU-15 and CEE countries, and analyses key innovation performance indicators (patents, innovation indices, R&D expenditures). The results highlight both the significance of the funds for innovation and the disparities between EU countries.

2 LITERATURE REVIEW

The Multiannual Financial Framework is an expenditure plan approved for a seven-year period based on the priorities of the EU. ESIF form part of the Multiannual Financial Framework and are jointly managed by the European Commission and the EU Member States [1]. Each of the ESIF funds has its own purpose and objectives, which collectively drive the EU forward and contribute to building a fairer, better, greener, and more prosperous Union. A comparison of ESIF priorities in the programming periods 2014-2020 and 2021-2027, based on European Commission [2] and the Circular City Funding Guide [3], shows that the priority area labelled innovation appears in both periods. Since innovation is a key component of Europe's development, it is essential to examine its importance within the ESIF framework. Innovation is generally defined as a three-stage process consisting of an idea, an invention, and its diffusion [4]. Even during the Industrial Revolution, innovation was among the major advantages that stimulated transformation in the sector. Through innovation strategies, firms were able to achieve higher profits and greater market share. Although numerous studies on innovation exist, two main research streams can be identified. They focus on different domains in which innovations have been applied and implemented. The first relates to the technological dimension, while the second concerns the human aspect or factor. Studies addressing the technological factors of innovation highlight the importance of technology and R&D for innovative activity. According to Prajogo and Ahmed [5], technologies and R&D represent the main advantage of an innovative firm; however, the human factor is the key determinant of successful innovation within an organisation. Studies focusing on the human dimension emphasise factors such as organisational structure and organisational culture. Although innovation drives the modern world, its measurement is not standardised, each sector evaluates success differently, whether through increased profit, the number of start-ups, or cost reductions. Ortega and Serna [6] found that innovation performance is significantly influenced by the economic sector, firm size, and the level of interaction with partners, whereas the number of R&D employees and the adoption of new technologies do not have a significant impact. Hermundsdottir and Aspelund [7] confirm a positive relationship between sustainable innovations and competitiveness. Caballero-Morales [8] identifies innovation as a key factor in the post-pandemic recovery of SMEs, noting that digital resources strongly support the development of innovative products. There are therefore many factors and consequences associated with innovation, and various approaches exist to measure them. In their study, Ortega and Serna [6] examined variables influencing innovation performance in developed countries and concluded that the economic sector, firm size, the degree of interaction with multiple stakeholders, and the level of collaboration with academic partners have a significant effect on innovation performance. Conversely, the number of R&D personnel and the introduction of new technologies do not exert a significant effect. Innovation in the context of sustainability is explored by Hermundsdottir and Aspelund [7], who analyse the relationship between innovation in this domain and competitiveness. Their study concludes that there is a positive relationship between innovation and competitiveness, supporting the argument that sustainability-oriented innovations can create mutually beneficial outcomes for companies. Caballero-Morales [8] defines innovation as a key factor in the recovery of enterprises after the COVID-19 pandemic and describes it as a survival tool for SMEs. Based on his findings, the use of digital resources was identified as the main factor facilitating the design of innovative products. In recent programming periods, a steadily increasing interest of EU regional policy in enhancing the innovation capacity and performance of enterprises can be observed. Support for regional innovation systems has become an integral part of regional development strategies adopted across EU Member States. Kaufmann and Wagner [9] confirmed that raising the technological level, added value, and competitiveness of regional economies depends on the innovation capacity of regional firms and clusters. The concept of smart specialisation, central to the 2014-2020 programming period, emphasises interventions aimed at fostering innovation. However, it is essential to recognise that countries and especially regions possess specific comparative advantages; therefore, they should concentrate on particular areas of technological development and innovation activities. According to Foray et al. [10], this was one of the key aims of the previous programming period, which sought to address the insufficient linkage between research and development and the sectoral structure of regional economies. Serbanica and Constantin [11] do not observe significant changes in allocations for innovation and entrepreneurship in Central and Eastern European (CEE) regions between programming periods. Countries such as Romania and Bulgaria allocated approximately 15%, whereas strong innovators such as Slovenia and Estonia invested around 30% of these resources. According to Serbanica and Constantin [11] CEE countries defined support for innovation as one of their core policy objectives following the post-socialist transition, and this objective continues to shape their strategic direction. Even before joining the EU in 2004, these countries exhibited strong and sustainable growth [12]. During their development phase, they also recorded notable progress in infrastructure, institutional quality, social conditions, and integration into global production networks. In this period, including in Slovakia, their fundamental comparative advantage lay in low unit labour costs, represented by a relatively skilled yet inexpensive labour force. According to Gauselmann et al. [13], this attracted substantial inflows of foreign investors, predominantly in the industrial sector. However, this does not necessarily mean that these countries (Slovakia in particular) are successfully fulfilling their policy objective of supporting innovation. Evidence shows disparities between productivity growth and innovation performance [14], insufficient spillovers of know-how and new technologies, and less effective national and regional innovation systems [11].

The literature review confirms that innovation constitutes a structurally embedded and strategically significant component of EU policy. Despite the heterogeneity of its forms and measurement approaches, empirical research consistently demonstrates its contribution to enhancing competitiveness, sustainability, and economic resilience. At the same time, the importance of regional specificities and smart specialisation is increasing as mechanisms for more efficient resource allocation. ESIF therefore remain a pivotal instrument for supporting regional innovation ecosystems across the EU. According to the conclusions of the literature review, we establish the main aim of this article to assess the importance of the ESIF for innovation performance, as these funds represent an indispensable component of a prosperous and competitive future for the EU.

3 DATA AND METHODOLOGY

The European Structural and Investment Funds constitute a fiscal instrument of the EU designed to support the implementation of its priorities. The previous programming period consisted of five funds that reflected not only the interests of the EU but also those of its Member States. Support for science, research, and innovation is among these objectives, and given the recurring prioritisation of this area, we set out to examine the significance of ESIF for innovation performance.

Based on the main objective of the article, we have determined the following research questions.

1. What is the significance of the European Structural and Investment Funds for innovation performance?
2. What is the level of innovation performance across the Member States of the European Union?

The methodology applies a combination of qualitative and quantitative methods chosen to assess and map the ESIF framework and innovation performance. The qualitative component applied to address the main objective and the research questions is descriptive statistics, while the quantitative component is conducted through cluster analysis. Data for the entire analytical section are drawn from official websites of the European Union, the European Commission, the European Parliament, the European Patent Office and the Eurostat database. Cluster analysis is performed only for the period 2015-2020, as data for 2014 are not available. The United Kingdom is excluded from the analysis of EU Member States, as it was already in the process of leaving the EU during the observed period. The analysis consists of mapping the role of ESIF in innovation performance by comparing EU-15 and CEE countries, focusing on ESIF utilisation and patent outputs (2015-2020). The quantitative analysis, using cluster analysis, evaluates the significance of ESIF for innovation performance at the level of EU Member States. Cluster analysis should not contain extreme values or missing observations [15]. Cluster analysis is an analytical method that follows a logical procedure of detecting groups of similar observations and establishing their relationships. The aim is to group observations into clusters such as observations within the same cluster are more like one another than to observations in other clusters [15]. A cluster can be defined as a group of observations for which dissimilarity is lower than the dissimilarity between observations outside the cluster. To measure similarity, distance metrics are most used; for the purposes of this study, Euclidean distance is applied. The analysis works with n objects, represented here by 24 Member States, and k determinants, in this case k=2.

$$d_{ij} = \sqrt{\sum_{k=1}^{n} \left(x_{ik} - x_{jk}\right)} \tag{1}$$

In the notation of Euclidean distance (1), x_{ik} represents the value of the k-th variable for the i-th object, and x_{jk} represents the value of the k-th variable for the j-th object. For the hierarchical clustering procedure, we apply Ward’s method, which forms groups based on similar size, with the measure of homogeneity defined as the within-cluster sum of squares (ESS-Error Sums of Squares). The notation for ESS (2), where n_h denotes the number of observations in cluster h, x_{hi} represents the vector of values of the characteristics for the i-th object in cluster h, and $\bar{x}_{c_h}$ denotes the vector of mean values within the cluster, is as follows:

$$ESS = \sum_{i=1}^{n_h} . \sum_{h=1}^{q} \left(x_{hi} - \bar{x}_{c_h}\right)^2 \tag{2}$$

In the context of this article, the outcome of the cluster analysis consists of clusters of EU Member States formed based on the determinants we have defined.
The determinants selected for the cluster analysis in this study are:

- ESIF – the volume of European Structural and Investment Fund absorption as a share of GDP,
- GERD – gross domestic expenditure on research and development as a share of GDP,
- PATENT – the number of patents.

To compute the cluster analysis, we use the R programming language. Finally, we evaluate the findings of the analytical section using tables and figures, interpret the results, draw conclusions, and answer the research questions through the appropriately selected methodology.

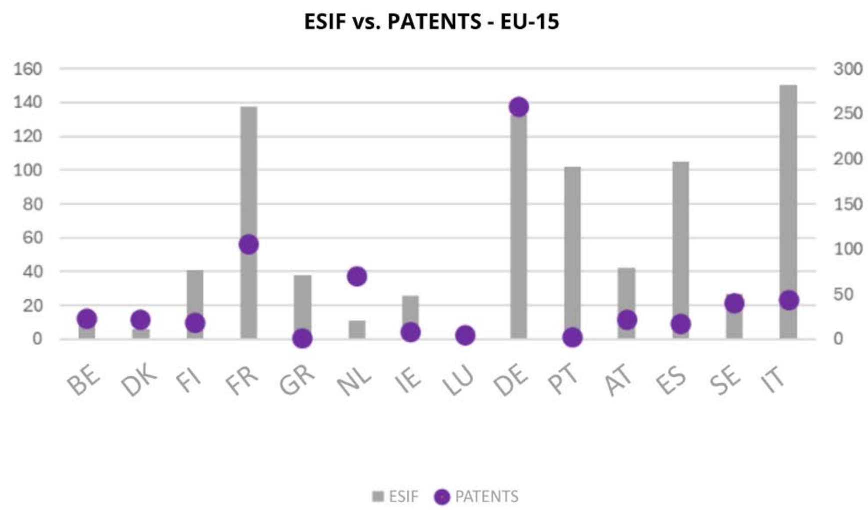
4 RESULTS AND DISCUSSION

Innovation is a weapon that changes the rules of the game. It drives competitiveness, economic inclusion, and many other domains. Today, it is an essential component of education, infrastructure, and science and research. The EU supports innovation in various ways, one of which is the financing of innovation-oriented priorities through the ESIF. For this reason, an important question arises, one that this study seeks to examine the significance of the ESIF for innovation performance.

4.1 EU-15 and CEE countries - ESIF versus patents

There are several ways in which innovation performance can be observed. Many of these were analysed in the previous chapter, where corresponding conclusions were drawn. Patents, as intangible assets, represent one of the methods for assessing innovation performance.

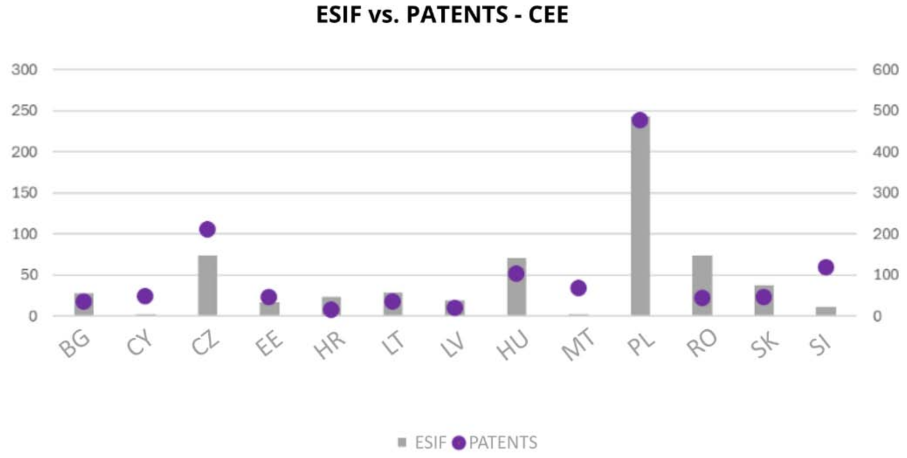
Figure 1 – ESIF vs. PATENTS – EU15, [16], [17], author´s own processing



To compare and analyse patents and the ESIF, we once again divided countries into the EU-15 and the CEE group. Figure 1 illustrates the average number of patents relative to ESIF absorption for the period 2015-2020, as data on fund utilisation for 2014 are not available. For the purposes of this observation, ESIF amounts are presented in units of EUR 100 million, while patents are shown as absolute counts. The findings are as follows. The EU-15 countries displayed in Figure 1 do not exhibit a direct relationship between ESIF absorption and the number of patents. This conclusion is supported by the example of Germany and France, both show nearly identical levels of ESIF absorption, yet Germany registers twice as many patents as France. The EU-15 countries are largely net contributors to the EU budget and do not rely on ESIF to an extent that would significantly influence their patent output. These are developed economies that for the most part finance innovation support from domestic resources. The average ESIF volume for the EU-15 is EUR 5.9 billion, the average number of patents is 45, and the average value of ESIF attributable to one patent amounts to EUR 131 million.

For the CEE countries, we constructed an identical graph under the same conditions as for the EU-15. In this case, we can assert that ESIF absorption has a meaningful impact on innovation performance, as a recurring trend can be observed, the number of patents increases with higher levels of ESIF utilisation. This phenomenon is particularly visible in the cases of Cyprus and the Czech Republic, or Malta and Poland. This finding is further supported by the fact that all CEE countries were net recipients of the EU budget in the 2014-2020 period. The average ESIF volume for the CEE group exceeds EUR 4.8 billion, the average number of patents is 97, and on average, more than EUR 50 million in ESIF corresponds to a single patent. Slovakia, as a CEE country, exemplifies the need for ESIF support, as one of its weaknesses lies in intangible assets, including patents. Conversely, Poland is the strongest V4 country in intangible assets, which is reflected both in its ESIF utilisation (the highest among the group) and in the number of patents shown in Figure 2.

Figure 2 – ESIF vs. PATENTS – CEE, [16], [17], author´s own processing

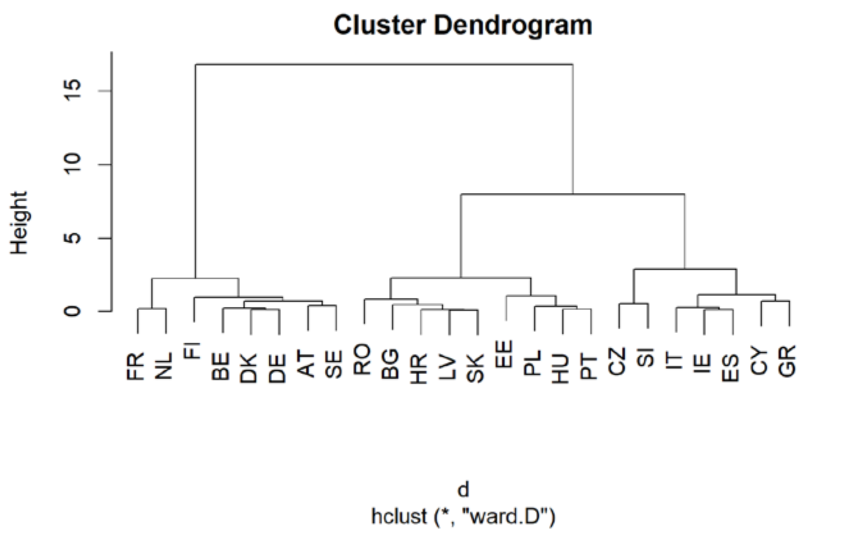


4.2 EU Member States - ESIF and Innovation Performance

The significance of the ESIF for innovation performance is examined through a cluster analysis conducted based on the three indicators defined in the methodology. Our aim is to observe clusters of countries and their relationship to innovation performance. GERD is used as the variable representing support for science, research, and innovation, while patents are considered the innovation output for the purposes of this study. We divided the analysis into two cluster analyses to determine, using dendrograms, whether the distribution of countries changes when using patents versus GERD as determinants. To assess the importance of the ESIF for innovation performance at the level of EU Member States, we applied cluster analysis. The hierarchical agglomerative clustering procedure ordered observations from the most similar to the least similar. The analysis was carried out in the R programming environment using the methods described in the methodology section of this article. The decision regarding the number of clusters based on similarity was delegated to R studio. We created cluster analyses for ESIF and GERD, and for ESIF and patents. Below, we compare the shifts in country groupings and evaluate the similarity between the analyses.

GERD - The distribution of the EU Member States based on the cluster analysis is, according to the dendrogram in Figure 3, as follows:

Figure 3 – Dendogram of cluster analyse on ESIF and GERD, [19], output generated by R program



- FR, NL, FI, BE, DK, DE, AT, SE - in addition to their grouping in the cluster analysis, these countries are also linked by the fact that they belong to the EU-15, where most members are net contributors. This group also exhibits, among other characteristics, the highest GERD expenditures.
- RO, BG, HR, LV, SK - lowest expenditures on GERD,
- EE, PL, HU, PT - the highest ESIF levels; except for PT, these countries belong to the CEE group, which are predominantly net recipients,
- CZ, SI, IT, IE, ES, CY, GR – average expenditure on GERD and ESIF.

In the cluster analysis conducted on the variables ESIF and GERD, we examined the clusters formed based on similarity among the observations. The individual groups share certain common characteristics, and since GERD supports the development of innovation, we also analyse this set of countries using the variables ESIF and patents, which represent the outputs of innovation, to observe how the cluster composition changes.

PATENTS - The clusters of EU Member States for the variables ESIF and patents, based on the cluster analysis, are shown in Figure 4:

- AT, BE, FR, FI, DK, DE, NL, SE - EU-15 countries with the lowest ESIF levels and the highest number of patents,
- HR, LV, SK, CZ, RO - lowest number of patents,
- EE, HU, BG, PL, PT - again, the highest ESIF levels; except for PT, these countries belong to the CEE group, which are predominantly net recipients,
- IE, IT, CY, ES, GR, SI – average ESIF and number of patents.

The outcome of the cluster analysis for the EU Member States is a comparison of clusters across the selected variables. When comparing the groups resulting from the cluster analyses, we found that the distribution is largely stable; the clusters remain mostly unchanged, with alterations occurring in only two cases. Bulgaria was reclassified from the cluster with the lowest GERD expenditures to the group with the highest ESIF levels. The second change involved the Czech Republic, which shifted from the cluster with average GERD expenditures to the cluster with the lowest number of patents. Due to the presence of outliers, Malta, Luxembourg, and Latvia were excluded from the observation. Based on the completed cluster analysis, we compare the results with the European Innovation Scoreboard - Summary Innovation Index (EIS), ESIF absorption, and patent counts.

Figure 4 – Dendogram of cluster analyse on ESIF and patents, [19], output generated by R program

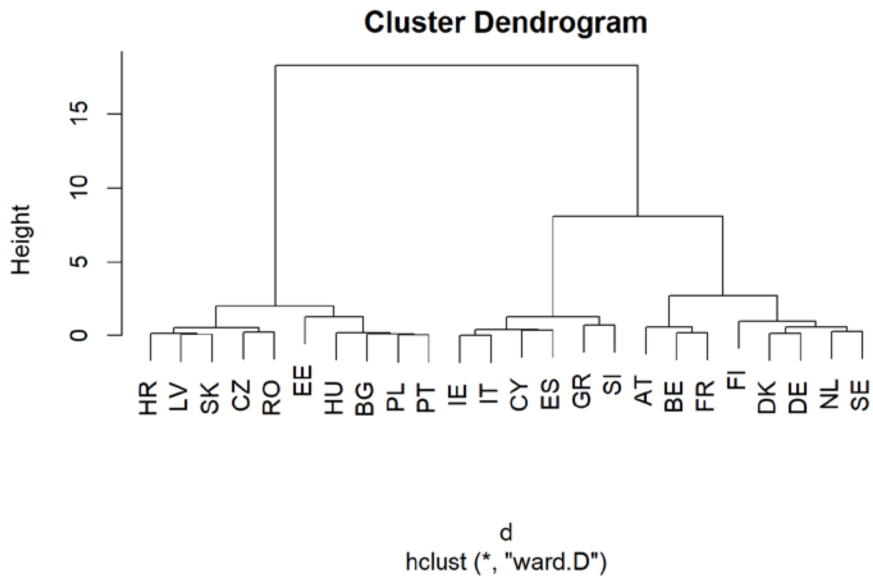


Table 1 illustrates the significance of ESIF for innovation performance. Based on the groups created through the cluster analysis, we identified countries with the greatest similarities according to the indicators ESIF, GERD, and patents. The Summary Innovation Index (see Table 1- EIS 2020) was added for the year 2020, as data prior to 2016 are not available. The countries in the first cluster, listed at the top of the table, belong to the EU-15 and are therefore mostly net contributors. According to the Summary Innovation Index criteria, these countries are innovation leaders and strong innovators. As advanced economies, they have limited need to draw substantial amounts from ESIF and largely finance their research and development expenditures from national budgets. The second cluster consists predominantly of moderate innovators, and the third cluster also comprises moderate innovators. This group displays the highest ESIF absorption levels and, at the same time, has performance values closest to those of strong innovators. The final group includes countries classified as emerging and moderate innovators, characterised by medium ESIF absorption but the lowest number of patents. However, these countries utilise the highest ESIF amounts per patent. Countries that are primarily net recipients require substantial innovation support, draw the largest ESIF resources, and require the highest sums per unit of patent output. Through this analysis, we can confirm the importance of the ESIF for innovation performance, thereby addressing Research question 1, and through the comparison with EIS results also addressing Research question 2.

Clusters	ESIF/GDP	EIS 2020	No. of patents	ESIF average (mil. EUR)	ESIF/patent
DK	0,20 %	140,06	2181	589,97	0,27
SE	0,57 %	138,19	4007	2666,70	0,67
FI	1,80 %	145,63	1820	4100,04	2,25
NL	0,15 %	137,81	6920	1110,87	0,16
BE	0,30 %	127,60	2263	1363,10	0,60
AT	1,13 %	124,01	2193	4189,86	1,91
FR	0,60 %	114,71	10530	13763,19	1,31
DE	0,40 %	122,07	25764	13271,73	0,52
IE	0,81 %	120,78	782	2558,89	3,27
CY	1,50 %	88,70	48	311,03	6,53
SI	2,65 %	91,53	119	1163,84	9,75
CZ	3,73 %	85,73	211	7424.36	35,21
IT	0,87 %	92,94	4332	15007,71	3,46
ES	0,91 %	91,94	1704	10477,56	6,15
GR	2,15 %	75,21	111	3783,65	34,19
EE	6,85 %	98,78	47	1684,98	35,98
PT	5,19 %	96,97	199	10218,59	51,44
HU	5,50 %	67,96	104	7112,60	68,50
PL	5,07 %	58,34	478	24331,22	50,96
HR	4,59 %	61,91	15	2326,00	153,36
SK	4,34 %	66,69	47	3789,73	81,50
LV	4,36 %	55,95	34	2921,23	85,50
BG	5,08 %	46,90	34	2762,50	80,85
RO	3,83 %	33,79	43	7430,19	172,80

Table 1 – The impact of ESIF on Innovation Performance, [18],[19], author´s own processing

Countries below the EU average in the EIS tend to be net recipients, absorb higher ESIF amounts than net contributors, and depend more on EU support. In this regard, ESIF fulfils its function not only as a driver of innovation performance but also as a tool for supporting other EU priorities. Based on these findings, we can consider the main objective of this study, as well as both research questions, successfully fulfilled.

5 CONCLUSION

The article focused on analysing the relationship between ESIF and the innovation performance of EU Member States. We applied cluster analysis, which enabled us to identify structural patterns in ESIF absorption and in key indicators of innovation performance. The analysis drew on data from the European Commission, Eurostat, the European Innovation Scoreboard and the European Patent Office, through which we demonstrated the role of ESIF in shaping innovation outcomes. The results confirm that ESIF play an important role in strengthening the innovation capacity of EU Member States, while also revealing persistent differences in the effectiveness of their utilisation.

EU-15 countries with the highest innovation performance, the highest GERD levels and the greatest number of patents draw the lowest volumes of ESIF, as they finance most of their research and development expenditures from national sources. In contrast, the countries with the highest ESIF absorption levels are primarily those in Central and Eastern Europe, which are predominantly net recipients. These countries achieve fewer patents and show the highest ESIF amounts per patent. The findings confirm that ESIF are a key instrument for supporting innovation particularly in countries with lower innovation performance. By comparing the results with the EIS, we demonstrate that countries below the EU average are stronger net recipients and depend largely on ESIF support. This implies the need for targeted and differentiated support aimed at strengthening innovation systems in countries with lower economic performance. ESIF thus fulfil not only the role of a mechanism for implementing cohesion policy priorities but also serve as an instrument for supporting innovation.

By carrying out and evaluating the analyses, we regard the objectives and research questions of this article as accomplished. We acknowledge, however, that the work is not exhaustive and further research is possible. A limitation of our study is the lack of available regional-level data, which would allow for a more detailed mapping and analysis of the role of ESIF in innovation performance and for the application of more advanced analytical techniques. Additional questions arise from the ongoing situation in Ukraine and its implications for future long-term EU budgets, as these developments may affect not only individual Member States but also the functioning of the EU as a whole.

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BEHAVIORAL CORRECTION OF OVERCONFIDENCE IN FINANCIAL KNOWLEDGE: EVIDENCE FROM AN EDUCATIONAL INTERVENTION

Radoslav Zemko

Abstract

This study tests whether a brief educational intervention reduces overconfidence in financial knowledge among first-year postgraduate economics students. Ninety-nine students completed a financial literacy pre-test and post-test before and after a 60-minute personal finance lecture. Before each test, students predicted their scores, allowing overconfidence to be measured as expected minus actual performance. Results show the lecture increased test scores and reduced overconfidence. Interpreted through a behavioral lens of miscalibration, the findings suggest that even short classroom interventions can improve both knowledge and self-assessment accuracy.

Keywords: *financial literacy; overconfidence; behavioral economics; miscalibration*

Introduction

Failure to recognize the limits of one's financial knowledge can lead to excessive financial risk. This type of behavior happens when individuals do not acquire financial knowledge to the extent necessary to evaluate the financial risks of debt. Such problems can lead to financial neglect, increased debt, and problematic financial behavior (Allgood & Walstad, 2016; Balasubramnian & Sargent, 2020). This issue is especially pronounced in young adults. This generation is advanced in technological skills but also exhibits low discernible financial skills with a high personal confidence in financial skills (Lusardi, Mitchell, & Curto, 2010). An imbalance in perception and actual ability is more than just a lack of information and is indicative of a persistent problem with financial cognition. This phenomenon is quite representative of the Dunning–Kruger effect, where people who do not have sufficient information or expertise tend to overrate their own proficiency, as they do not possess the cognitive skills to realize their deficiencies (Kruger & Dunning, 1999; Dunning, 2011). More importantly, prior studies indicate that an individual can possess a lower degree of incompetence, and as a result of that, the individual may move toward more accurate self-awareness, and this self-inflation can be diminished as they appreciate their own deficiencies (Kruger & Dunning, 1999). This points to the fact that from the viewpoint of behavioral economics, having an education can not only be a means of gathering information, but can also be a way of alleviating distorted self-assessments. It is well established that perceived financial literacy predicts financial behavior regardless of actual financial literacy (Allgood & Walstad, 2016). Besides, there exist systematic differences between genders in financial confidence, with men usually having more self-assessed knowledge and greater overconfidence, which can lead to more dangerous financial behavior, such as higher trading volume (Barber & Odean, 2001). This emphasizes the need to disentangle confidence calibration and knowledge levels in the field of financial education. Hence, this study aims to check whether a single in-class lecture can increase financial knowledge and also reduce overconfidence (miscalibration) in the context of university students.

The aim of this research is to assess whether a one-hour personal finance lecture can significantly increase students' financial literacy test scores and reduce overconfidence by narrowing the gap between self-estimated and actual performance. More broadly, the study evaluates whether short, low-cost, and easily scalable educational interventions can function as effective tools for behavioral bias correction, aligning confidence more closely with competence and thereby supporting more informed financial decision-making in the future.

Hypothesis: A brief financial literacy lecture leads to a statistically significant reduction in overconfidence.

We expect substantial miscalibration prior to instruction, with a significant share of students exhibiting overconfidence, and improved calibration following the educational intervention. Specifically, after a short lecture on personal finance basics, students' overconfidence—measured as the difference between expected and actual test scores—will decrease significantly relative to pre-lecture levels. This hypothesis follows directly from the Dunning–Kruger framework, which predicts that improvements in competence enhance metacognitive awareness and reduce inflated self-assessment (Kruger & Dunning, 1999; Dunning, 2011).

1 Literature Review

Overconfidence arises when subjective confidence exceeds objective performance (Moore & Healy, 2008). In financial contexts, such miscalibration can lead to harmful outcomes, including overtrading, excessive risk-taking, poor borrowing decisions, and the neglect of professional advice (Barber & Odean, 2001; Balasubramnian & Sargent, 2020). Because perceived financial literacy strongly shapes behavior—often independently of actual knowledge—correcting inaccurate self-assessment may be as important as improving objective financial literacy itself (Allgood & Walstad, 2016).

The Dunning–Kruger effect provides a key theoretical framework for understanding overconfidence in financial knowledge. Individuals with low competence may be "unskilled and unaware," systematically overestimating their abilities, while more knowledgeable individuals tend to provide more accurate self-assessments (Kruger & Dunning, 1999; Dunning, 2011). Empirical evidence from student samples supports this pattern, showing that as education and experience increase, self-assessments become more realistic and better calibrated (Ipatova & Merheb, 2023). This suggests that financial education can reduce overconfidence not only by transferring information but also by improving metacognitive calibration.

Despite the general consensus that education improves knowledge acquisition, the evidence of its long term benefits is weak (Fernandes, Lynch, & Netemeyer, 2014). That being said, if the intended goal is knowledge retention, customized teaching that dives into details to clarify any misconceptions and points out common mistakes that could lead to the simplification of reality, this, in turn, may positively enhance self-evaluation (Moore & Healy, 2008).

2 Methodology

2.1 Sample and procedure

The study was conducted with a sample of N = 99 first-year postgraduate economics university students. We employed a one-group online pre-test/post-test design without a control group, focusing on within-student changes in both financial literacy performance and confidence calibration across the two testing points.

Data collection took place in a single online session. At the beginning, students completed a 10-question financial literacy pre-test and, immediately before starting, estimated how many items they expected to answer correctly. Students then attended a 60-minute instructional lecture covering core personal finance topics, including budgeting, interest and compound interest, debt and credit, saving, and basic investing, supported by practical examples and brief interactive elements. After the lecture, students completed a parallel 10-question post-test of comparable scope and difficulty and again predicted their expected score before taking the test. Importantly, students did not receive feedback on their pre-test results before making their post-test predictions, so post-test expectations reflected confidence after instruction rather than direct score feedback. Because no control group was included, the analysis focuses on within-subject changes rather than causal attribution.

2.2 Data

Objective financial knowledge was measured using students' pre-test and post-test scores, recorded on a 0–10 scale, with items adapted from widely used financial literacy content (e.g., Lusardi et al., 2010). Perceived knowledge was captured through students' self-estimated scores on the same 0–10 scale collected immediately before each test. Overconfidence (OC) was operationalized as the difference between expected and actual performance (OC = expected − actual), wher e positive values indicate overconfidence and negative values indicate underconfidence. To evaluate change over time we used log-difference specifications to represent proportional changes in outcomes and improve model behavior (normality and scaling) in OLS estimation. Finally, we included standard covariates to account for individual heterogeneity: gender, monthly income, prior experience, interest in personal finance, and prior training.

2.3 Correlation analysis

Table 1 reports the pairwise correlations among learning gains, changes in overconfidence, and selected control variables. The correlation matrix reveals a strong and economically meaningful negative association between changes in overconfidence and improvements in test performance (r =–0.65). This indicates that students who experienced larger reductions in overconfidence tended to achieve substantially greater learning gains. The magnitude and direction of this relationship are consistent with the behavioral interpretation that improved calibration accompanies, or is closely linked to, effective learning.

Table 1

	log_dR~t	log_dOC	Income	Exp	Interest	Training
log_dResult	1.0000					
log_dOC	-0.6532	1.0000				
Income	-0.0703	-0.1053	1.0000			
Exp	-0.0317	-0.0802	0.3008	1.0000		
Interest	-0.1152	-0.0275	0.3465	0.4486	1.0000	
Training	-0.0339	-0.1369	0.1705	0.0363	0.1197	1.0000

Learning gains (log_dResult) exhibit only weak correlations with background characteristics, including income, prior experience, interest in personal finance, and prior training, suggesting that score improvements were not driven by socioeconomic factors or previous exposure alone. Similarly, changes in overconfidence (log_dOC) show limited correlation with these controls, indicating that the reduction in miscalibration was broadly distributed across students rather than concentrated within specific subgroups.

Among the control variables, moderate positive correlations are observed between interest in personal finance and prior experience (r = 0.45), as well as between interest and income (r = 0.35). These relationships are intuitive and suggest that more engaged students are also more likely to have prior exposure or greater financial resources. Importantly, none of the correlations among explanatory variables approach levels typically associated with multicollinearity concerns, supporting the reliability of subsequent regression estimates.

Overall, the correlation structure reinforces the central behavioral mechanism examined in this study: reductions in overconfidence are closely linked to learning gains, while individual background characteristics play a comparatively minor role.

3 Results

3.1 Descriptive Findings

Table 2 reports descriptive statistics for test performance and overconfidence before and after the educational intervention. Mean test scores increased from 0.86 on the pre-test (Result_A) to 0.89 on the post-test (Result_B), indicating an overall improvement in financial literacy following the lecture. At the same time, the standard deviation declined, suggesting a modest convergence in performance as lower-scoring students improved.

Table 2

Variable	Obs	Mean	Std. dev.	Min	Max
Result_A	99	.8606061	.151063	.3	1
Result_B	99	.8949495	.1264699	.3	1
Overconfid~A	99	-.1393939	.1754401	-.7	.4
Overconfid~B	99	-.1121212	.1540426	-.5	.4

With respect to confidence calibration, Overconfid~A shows a mean of −0.14 prior to the intervention, with substantial dispersion, indicating pronounced heterogeneity in students' self-assessment accuracy. While the negative mean suggests slight average underconfidence, the wide range of values reveals the presence of both strong overconfidence and underconfidence among students. After the lecture, the mean overconfidence moved closer to zero (−0.11), and its dispersion decreased, indicating improved calibration and fewer extreme misjudgments of ability.
Overall, the descriptive patterns suggest that the lecture not only improved objective financial knowledge but also contributed to better alignment between perceived and actual performance, consistent with the study's behavioral hypothesis.

3.2 Regression Summary

Table 3 reports OLS estimates explaining changes in overconfidence. Learning gains are strongly and negatively associated with changes in overconfidence: students who achieved larger improvements in test performance experienced significantly larger reductions in overconfidence ($\beta = -0.909$, $p < 0.001$). This result supports the behavioral interpretation that improved competence is closely linked to improved calibration. Among control variables, prior training is marginally significant at the 10% level, while gender, income, prior experience, and interest in personal finance are not statistically significant predictors of changes in overconfidence. The model explains a substantial share of the variation in overconfidence changes ($R^2 = 0.475$). Quantitatively, a one-percent increase in learning gains is associated with approximately 0.9-percent reduction in overconfidence, highlighting the strength of the calibration–learning link.

Table 3

VARIABLES	(1) log_dOC
log_dResult	-0.909***
	(0.103)
Gender	0.0166
	(0.0233)
Income	-0.0728
	(0.0559)
Exp	-0.0212
	(0.0261)
Interest	-0.0247
	(0.0614)
Training	-0.0388*
	(0.0213)
Constant	0.150***
	(0.0510)
Observations	99
R-squared	0.475

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4 Conclusion

A single 60-minute personal finance lecture produced significant improvements in financial literacy and meaningful reductions in overconfidence among first-year economics students. Hypothesis 1 was supported: the expectation-performance gap narrowed substantially after instruction. Moreover, larger calibration improvements were associated with larger learning gains, consistent with behavioral theories of miscalibration and Dunning–Kruger dynamics (Moore & Healy, 2008; Kruger & Dunning, 1999). The results suggest that brief, low-cost classroom interventions can improve both knowledge and self-assessment accuracy—two complementary goals of financial education.

5 Discussion

The findings support the view of overconfidence as miscalibration (Moore & Healy, 2008): before instruction, students systematically misestimated their knowledge, with both overconfidence and underconfidence present; after instruction, expectations moved closer to actual performance. This aligns with the Dunning–Kruger mechanism—initial ignorance can produce confidence, while modest learning improves both competence and insight into one's limitations (Kruger & Dunning, 1999; Dunning, 2011). The observed link between learning gains and calibration improvements suggests that students who internalized more content also adjusted self-assessment more accurately. From a behavioral perspective, this matters because perceived literacy can drive behavior independently of actual literacy (Allgood & Walstad, 2016).

At the same time, behavioral research cautions that one-off education effects may fade (Fernandes et al., 2014). The immediate post-test design captures short-run debiasing; persistence and translation into real financial behavior remain open questions. This study contributes to the financial literacy literature by demonstrating that even minimal, classroom-based interventions can reduce overconfidence through improved calibration, not only through knowledge accumulation.

6 Limitations

Key limitations include the lack of a control group, immediate (short-term) measurement, and an overconfidence measure focused on expected minus actual score (capturing overestimation but not overprecision/overplacement) (Moore & Healy, 2008). External validity is constrained by a single-university student sample, and the study does not measure downstream financial behavior (Allgood & Walstad, 2016; Balasubramnian & Sargent, 2020). Results should therefore be interpreted as short-run calibration effects rather than long-term behavioral change. Effects may also depend on lecture design and instructor delivery. Future research should add control conditions, delayed follow-ups, and behavioral outcomes, consistent with concerns about decay in education effects (Fernandes et al., 2014).

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ZMIER AKO ALTERNATÍVNY SPÔSOB RIEŠENIA SPOROV VO VEREJNEJ SPRÁVE V PODMIENKACH SLOVENSKEJ REPUBLIKY V KOMPARÁCIÍ S NAROVNÁNÍM V PODMIENKACH ČESKEJ REPUBLIKY

CONCILIATION AS AN ALTERNATIVE METHOD OF DISPUTE RESOLUTION IN PUBLIC ADMINISTRATION IN THE SLOVAK REPUBLIC COMPARED WITH SETTLEMENT PROCEDURES IN THE CZECH REPUBLIC

Patrik Fajak

Abstrakt

Alternatívne riešenia sporov sa vo verejnej správe využívajú pomerne dlhé obdobie, no ich využívanie nie je tak časté. Jedným z alternatívnych riešení sporov vo verejnej správe je zmier, ktorý sa využíva v správnom konaní, konkrétne v konaní o priestupkoch. Napriek tradícií využívania zmieru siahajúcej až do Česko-slovenskej republiky, je zmier využívaný veľmi zriedkavo, čo zapríčiňuje najmä jeho veľmi úzka možnosť využitia len na niektoré druhy priestupkov. V podmienkach Českej republiky sa pri priestupkovom konaní využíva inštitút narovnání, ktorý je možné využiť na väčšiu škálu priestupkov ako zmier v podmienkach Slovenskej republiky. Príspevok sa zaoberá komplexnou analýzou zmieru ako alternatívneho spôsobu riešenia sporov v konaní o priestupku v podmienkach Slovenskej republiky v komparácií s narovnáním v podmienkach Českej republiky.

Klíčová slova: *alternatívne riešenia sporov, zmier, narovnání, priestupok*

Abstract

Alternative dispute resolution mechanisms have been used in public administration for a relatively long time, although their application remains infrequent. One such mechanism is conciliation, employed within administrative proceedings, specifically in misdemeanour procedures. Despite the long-standing tradition of conciliation dating back to the era of the Czechoslovak Republic, its practical use is very limited, primarily due to its narrow applicability to only certain categories of misdemeanours. In the Czech Republic, the related instrument of settlement is used in misdemeanour proceedings, offering a significantly broader scope of application than conciliation in the Slovak Republic. This paper provides a comprehensive analysis of conciliation as an alternative method of dispute resolution in misdemeanour proceedings within the Slovak Republic, compared with the settlement mechanism employed in the Czech Republic.

Key words: *alternative dispute resolution, conciliation, settlement,* misdemeanour

ÚVOD

Napriek tomu, že sa alternatívne spôsoby riešenia sporov vo verejnej správe považujú za novú a aktuálnu tému, zmier sa na území Slovenskej republiky využíva už niekoľko desaťročí. Rovnako, ako celý rad ďalších alternatívnych spôsobov riešenia sporov vo verejnej správe, aj zmier bol takzvane prebratý z trestného práva. Zmier v priestupkovom konaní, respektíve trestnom konaní o priestupku sa využíval už v období Česko-slovenskej republiky. Spočiatku tvoril súčasť trestného práva, no neskôr, najmä po osamostatnení sa Slovenskej a Českej republiky tvorí súčasť aj práva správneho. V podmienkach Slovenskej republiky teda poznáme zmier tak v oblasti trestného práva, ako aj v oblasti správneho práva. Práve zmier, ktorý je súčasťou správneho práva, špecificky konania o priestupkoch, je zmierom uzatváraným orgánom štátnej správy, ktorým je okresný úrad. Podobným procesom sa formovalo aj narovnání v podmienkach Českej republiky, ktoré je taktiež možné využiť v trestných veciach, ale aj veciach spadajúcich do oblasti práva správneho. Na rozdiel od zmieru, je narovnání alternatívnym spôsobom riešenia sporov v oblasti konania o priestupkoch širšie koncipovaným a využiteľným na väčší okruh priestupkov. V tomto prípade je však potrebné uviesť, že v Českej republike došlo k prijatiu nového zákona, zákona č. 250/2016 Sb. o odpovědnosti za přestupky a řízení o nich (ďalej len „zákon o odpovědnosti za přestupky"), upravujúceho priestupky pomerne nedávno v roku 2016, pričom v Slovenskej republike aj napriek mnohonásobným novelizáciám zákona č. 372/1990 Zb. o priestupkoch (ďalej len „zákon o priestupkoch) sa v oblasti zmieru od roku 1990 takmer nič nezmenilo. Príspevok sa podrobne zaoberá analýzou zmieru v priestupkovom konaní ako alternatívneho spôsobu riešenia sporov vo verejnej správe s prihliadnutím na jeho výhody a nevýhody v porovnaní s inštitútom narovnání, ktorý je využívaný v priestupkovom práve v Českej republike. Súčasťou príspevku je aj návrh riešení, ktoré podľa názoru autora prispejú k efektívnejšiemu využívaniu zmieru v konaní o priestupkoch.

1 ZMIER AKO ALTERNATÍVNY SPÔSOB RIEŠENIA SPOROV V SLOVENSKEJ REPUBLIKE

Zmier ako alternatívny spôsob riešenia sporov v prípade priestupkov sa na území Slovenskej republiky objavoval už v prvej polovici minulého storočia. Vo vtedajšej Česko-slovenskej republike bol zmier v oblasti priestupkov upravený v zákone č. 108/1933 Sb. o ochraně cti (ďalej len „zákon o ochraně cti"). V spomínanom zákone sa zmier (označovaný ako „smír") dosahoval počas takzvaného „smírčího řízení". V období platnosti zákona o ochraně cti sa priestupky riešili v trestnom konaní a smírčí řízení muselo predchádzať trestnému konaniu o priestupku. V druhej polovici 20. storočia bol v podmienkach Česko-slovenskej republiky prijatý zákon č. 89/1950 Zb. o trestnom konaní správnom (ďalej len „zákon o trestnom konaní správnom"), ktorý nahradil zákon o ochraně cti v oblasti uzatvárania zmieru pri priestupkoch. Daný zákon upravoval zmier (označovaný ako „smier") v prípade priestupkov taktiež v rámci trestného konania, pričom rozhodujúcu úlohu zastávali národné výbory. V prípade zákona o ochraně cti a rovnako zákona o trestnom konaní správnom boli priestupky súčasťou trestného práva a zmier bolo možné uzatvoriť len v prípade, že sa jednalo o priestupok urážky na cti. Počas Československej socialistickej republiky (1960-1990) bol zákon o trestnom konaní správnom nahradený zákonom č. 60/1961 Zb. o úlohách národných výborov pri zabezpečovaní socialistického poriadku, v ktorom sa aj napriek viacerým novelizáciám nenachádzajú zmienky o zmieri. Až v roku 1990 počas Českej a Slovenskej Federatívnej Republiky bol prijatý zákon o priestupkoch, ktorý s desiatkami novelizácií platí v podmienkach Slovenskej republiky dodnes.

Zákon o priestupkoch však nie je jediným zákonom, ktorý upravuje v podmienkach Slovenskej republiky zmier ako alternatívny spôsob riešenia sporov vo verejnej správe. Druhým právnym predpisom upravujúcim zmier je zákon č. 71/1967 Zb. o správnom konaní (ďalej len „správny poriadok"). V správnom poriadku je zmier zakotvený v základných pravidlách konania, konkrétne v § 3 ods. 4 druhej vety, ktorá znie: „*Ak to povaha veci pripúšťa, má sa správny orgán vždy pokúsiť o jej zmierne vybavenie.*" To znamená, že správny orgán je povinný zvážiť možnosť využitia zmieru pri takých prejednávaných veciach, v ktorých to pripúšťa povaha prejednávanej veci. Píry (2022) v tejto súvislosti tvrdí, že správny orgán je povinný pokúsiť sa o zmier vždy, keď je konanie vedené podľa právneho predpisu, ktorý umožňuje uzatvorenie dohody medzi účastníkmi konania. Spomínaná dohoda teda môže napĺňať definíciu zmieru, no je možná len v prípade takého správneho konania, ktorého začatie je podmienené podaním návrhu jedného z jeho účastníkov. Medzi príklady konaní, v ktorých je možné využitie zmieru patrí napríklad konanie o priestupku, či stavebné konanie. Potasch a Hašanová (2015) dodávajú, že zásada zmierneho vybavenia veci je použiteľná pri tých správnych konaniach, ktoré majú charakter sporu a v opozícií stoja účastníci konania, ktorých záujmy alebo tvrdenia sa nezhodujú. Výnimku sporových vecí predstavuje konanie, v rámci ktorého je jednou zo strán správny orgán, ktorý v tomto prípade nevystupuje ako účastník konania ale ako rozhodovací orgán disponujúci priamo zo zákona kompetenciou, ktorá mu umožňuje uzatvárať zmier medzi účastníkmi konania.

Definícia zmieru sa v správnom poriadku neobmedzuje len na základné pravidlá správneho konania, ale má svoje zakotvenie aj explicitne v § 48 ods. 1 a 2, ktoré znejú: „*Ak to pripúšťa povaha veci, môžu účastníci konania medzi sebou so schválením správneho orgánu uzavrieť zmier. Správny orgán zmier neschváli, ak odporuje právnym predpisom alebo všeobecnému záujmu.*“ „*Proti schválenému zmieru sa nemožno odvolať. Schválený zmier je vykonateľný.*“ Správny poriadok teda v spomenutých ustanoveniach umožňuje účastníkom konania uzatvoriť zmier, no s prihliadnutím na povinné schválenie správnym orgánom, pred ktorým je konanie vedené. Správny orgán v tomto prípade nemôže akýmkoľvek spôsobom zasahovať do formy a textu zmieru, ale musí dbať na jeho súlad s platnou legislatívou a všeobecným (verejným) záujmom. Dôležitou časťou sú slová „*Ak to pripúšťa povaha veci,...*“, ktoré limitujú možnosť uzatvorenia zmieru len na určitý okruh konaní, napríklad konanie o návrhovom priestupku urážky na cti.

Napriek tomu, že zmier je všeobecne upravený v správnom poriadku, najčastejšie sa využíva najmä v prípade konania o priestupku urážky na cti. Zákonodarca spomínaný fakt reflektoval explicitnou úpravou zmieru v osobitnom predpise, ktorým je zákon o priestupkoch. Okresný úrad ako orgán štátnej správy môže využiť v zmysle zákona o priestupkoch zmier iba v konaní o dvoch konkrétnych priestupkoch, ktorými sú priestupok na úseku práva na prístup k informáciám v zmysle § 42a a priestupok proti občianskemu spolunažívaniu podľa § 49 ods. 1 písm. a). Zákonom o priestupkoch dané veľmi úzke vymedzenie priestupkov, pri ktorých je možné využiť alternatívny spôsob riešenia sporu má svoje opodstatnenie vo forme začatia konania o priestupku. Oba vyššie spomínané priestupky sú totiž priestupkami návrhovými, čo znamená, že konanie o spomínaných priestupkoch môže začať len v prípade, že jeden z účastníkov konania podá návrh na začatie konania. Jakab (2022) tvrdí, že samotná podstata návrhového priestupku spočíva v konaní navrhovateľa, ktorý musí začiatok konania o priestupku svojim návrhom iniciovať, pretože okresný úrad ako správny orgán nebude konanie prípadného páchateľa priestupku preskúmavať z úradnej povinnosti t. j. *ex offo*.

Zmier je v zákone o priestupkoch explicitne upravený v § 78, ktorý znie: „*Pri priestupku urážky na cti sa okresný úrad pokúsi urazeného na cti a obvineného z priestupku zmieriť*“. Daná úprava prikazuje okresnému úradu „pokúsiť sa“ o uzatvorenie zmieru medzi účastníkmi konania. V praxi to znamená, že úradník, ktorý má danú vec priestupku urážky na cti na starosti predvolá účastníkov konania na ústne pojednávanie a poučí účastníkov konania o možnosti uzatvorenia zmieru, následkoch a povinnostiach jeho uzatvorenia. Úradník v žiadnom prípade nemôže nútiť účastníkov konania uzatvoriť zmier a žiadnym spôsobom nemôže do obsahu zmieru zasahovať. Spomínané štádium konania je obligatórne, teda úradník zastupujúci okresný úrad je povinný pokúsiť sa o zmier, no nie je povinný zmier uzavrieť. Ochotu alebo neochotu účastníkov konania uzatvoriť zmier je potrebné riadne zapísať do zápisnice z ústneho pojednávania. Na tomto mieste je potrebné spomenúť, že zmier je možné zo strany účastníkov konania dohodnúť aj pred ústnym pojednávaním a na ústnom pojednávaní predložiť dohodnutý zmier na schválenie okresnému úradu. V prípade, že je zmier v súlade s platnou legislatívou a spĺňa všetky potrebné náležitosti, je konanie o priestupku zastavené. V prípade, že zmier nie je v súlade s platnou legislatívou, začaté konanie o priestupku pokračuje (Košičiarová 2020). V prípade uzatvorenia zmieru nie je možné návrh na začatie konania vziať späť a rovnako sa ani jeden z účastníkov konania nemôže voči uzatvorenému zmieru odvolať. Uzatvorenie zmieru je tak prejavom vôle účastníkov konania dohodnúť sa. Navrhovateľ je ochotný prijať ospravedlnenie od obvineného z priestupku a obvinený z priestupku je ochotný protiprávne konanie priznať a ospravedlniť sa navrhovateľovi. Na obvineného z priestupku sa hľadí, aj napriek priznaniu viny, ako keby priestupok nespáchal a nevytvára sa záznam do Centrálneho registra správnych deliktov a priestupkov.

2 NAROVNÁNÍ AKO ALTERNATÍVNY SPÔSOB RIEŠENIA SPOROV V ČESKEJ REPUBLIKE

Narovnání bolo zavedené do právneho systému Českej republiky prijatím zákona o odpovědnosti za přestupky, ktorý nahradil dovtedajší zákon č. 200/1990 Sb. o přestupcích. Prijatím inštitútu narovnání vznikol priestor na alternatívny spôsob riešenia sporu v konaní o priestupkoch. Konanie o priestupku tak končí iným spôsobom ako meritórnym rozhodnutím správneho orgánu alebo zastavením konania. Inšpiráciu pre zavedenie narovnání do priestupkového práva zákonodarca našiel v trestnom práve (Jemelka 2020). Narovnání ako alternatívny spôsob riešenia sporov v priestupkovom konaní má za úlohu urovnanie spoločenských vzťahov, ktoré boli spáchaním priestupku narušené prostredníctvom odstránenia vzniknutých následkov, ktoré zapríčinilo spáchanie priestupku. Taktiež je súčasťou takzvanej restoratívnej spravodlivosti, ktorá spočíva v tvrdení, že protiprávne konania v prvom rade nenarušuje právne normy, no poškodzuje medziľudské vzťahy a z tohto dôvodu je potrebné usilovať o nápravu narušených sociálnych vzťahov. Hlavným záujmom restoratívnej spravodlivosti nie je potrestanie páchateľa protiprávneho činu ale zapojenie poškodeného do konania (Frumarová 2017). Prášková (2022) tvrdí, že inštitút narovnání nachádzame v tej časti priestupkového práva procesného, v ktorej sú vymedzené skutkové podstaty priestupkov, správne tresty a predovšetkým ich alternatívy alebo zvláštne inštitúty, medzi ktoré autorka zaraďuje narovnání.

Zákon o odpovědnosti za přestupky zakotvuje inštitút narovnání v § 87, ktorý je venovaný najmä podmienkam jeho uzatvorenia. V zmysle § 87 ods. 1 zákona o odpovědnosti za přestupky je možné narovnání uzavrieť len v prípade splnenia štyroch podmienok. Prvou podmienkou uzatvorenia narovnání je súlad s verejným záujmom a jeho dostatočnosť. Dostatočnosť sa posudzuje vzhľadom na povahu a závažnosť priestupku, mieru, v akej bol verejný záujem dotknutý spáchaním priestupku a v neposlednom rade osobu páchateľa priestupku a jeho pomery. Druhá podmienka spočíva v priznaní sa obvineného zo spáchania priestupku, ktoré musí byť uskutočnené slobodne, vážne a určito. Treťou podmienkou je úhrada škody poškodenému alebo vydanie bezdôvodného obohatenia zo strany páchateľa priestupku. Poslednou podmienkou je zloženie peňažnej čiastky obvineným na účet správneho orgánu, ktorá je určená na verejnoprospešné účely, pričom výšku a príjemcu peňažnej čiastky určí správny orgán tak, aby nebola v zjavnom nepomere povahe priestupku, závažnosti priestupku a výške pokuty, ktorú je možné za spáchaný priestupok uložiť. Správny orgán je povinný z dikcie § 87 ods. 3 zákona o odpovědnosti za přestupky vypočuť poškodeného a obvineného z priestupku vo veci uzatvorenia narovnání. Správny orgán kladie dôraz na spôsob a okolnosti uzatvorenia dohody o narovnání, dobrovoľnosť uzatvorenia spomínanej dohody a v neposlednom rade súhlas oboch účastníkov konania s jej znením a schválením. Obvinený z priestupku je taktiež správnym orgánom poučený o právnych dôsledkoch schválenia dohody o narovnání. V zmysle § 96 ods. 3 zákona o odpovědnosti za přestupky môže voči rozhodnutí o schválení dohody podať odvolanie ten, ktorý dohodu o narovnání uzavrel.

Je veľmi dôležité spomenúť, že na uzatvorenie dohody o narovnání nemá žiaden z účastníkov konania právny nárok, jedná sa len o možnosť, ktorú zákonodarca poskytuje pri vymedzenom druhu priestupkov a za predpokladu splnenia podmienok, ktoré sú stanovené v zákone o odpovědnosti za přestupky a v neposlednom rade so súhlasom správneho orgánu. Správny orgán v tomto prípade musí sám zvážiť, či je dohoda o narovnání vhodnou možnosťou ukončenia priestupkového konania. Správny orgán však nedisponuje žiadnym návodom, postupom alebo osnovou ako hodnotiť vhodnosť uzatvorenia dohody o narovnání na konkrétny priestupok, je teda potrebné každý prípad posudzovať zvlášť s ohľadom na okolnosti (Márton a Gonsiórová 2017). Inštitút narovnání je možné využiť na viacero druhov priestupkov, medzi dané priestupky môžeme zaradiť priestupky proti verejnému poriadku, občianskemu spolunažívaniu alebo priestupky proti majetku (Prášková 2022). V prípade, že správny orgán prejednáva viacero priestupkov, je možné uzatvorenie dohody o narovnání len v niektorých z nich. Nie je možné predpokladať, že v prípade jedného obvineného v priestupku vo viacerých priestupkoch musí správny orgán postupovať v prípade možnosti dohody o narovnání rovnako. V prípade, že správny orgán vedie priestupkové konanie voči viacerým obvineným z priestupku, taktiež je možné uzatvorenie dohody o narovnání jednotlivo len s niektorými obvinenými z priestupku (Ondrušová, Ondruš a Vytopil 2018).

Kľúčové postavenie v prípade dosiahnutia dohody o narovnání má poškodený, pretože len on môže umožniť obvinenému z priestupku uzatvorenie dohody o narovnání. V prípade, ak spomínanú dohodu poškodený uzavrieť nechce, obvinenému z priestupku nie je umožnené aktívnym konaním napraviť škodu, ktorú svojim protiprávnym konaním – priestupkom spôsobil (Sotolář, Draštík, Fenyk a kol. 2017). Obvinený z priestupku má v tomto prípade možnosť aktívne sa podieľať na náprave svojej protiprávnej činnosti, môže iniciovať uzatvorenie dohody smerom k poškodenému, teda nemusí čakať na aktivitu správneho orgánu. Umožnením obvinenému z priestupku aktívne sa zapojiť do nápravy jeho protiprávnej činnosti môže veľmi výrazne ovplyvniť rýchlosť vymožiteľnosti náhrady škody zo strany poškodeného v porovnaní s klasickým konaním o priestupku. Ondrušová, Ondruš a Vytopil (2018) poukazujú na fakt, že poškodený by nemal v rámci dohody o narovnání žiadať od obvineného z priestupku finančnú kompenzáciu vyššiu ako je spôsobená škoda, respektíve bezdôvodné obohatenie. V praxi však môžu nastať aj situácie, v ktorých bude poškodenému priznaná vyššia čiastka než je spôsobená škoda alebo bezdôvodné obohatenie. Spomínaná situácia nastáva v prípade, keď je vyššia čiastka priznaná ako kompenzácia za ďalšie negatívne následky spáchaného priestupku.

Obvinený z priestupku má povinnosť prehlásiť a priznať sa k priestupku, ktorý je mu kladený za vinu, pretože len v takom prípade môže byť dohoda o narovnání uzatvorená. Prehlásenie však musí spĺňať viaceré náležitosti, aby sa mohlo jednať o také prehlásenie, ktoré je možné považovať za dostačujúce. Obvinený z priestupku musí prehlásenie uskutočniť slobodne, určito, nepodmienečne a vážne. Podmienkou však nie je vysvetlenie dôvodu alebo pohnútok spáchania priestupku. Obvinený z priestupku spomínané prehlásenie musí uskutočniť z vlastnej vôle a slobodne, nemôže byť nútený, taktiež nemôže prehlásenie uskutočniť len zo žartu. V prípade, že obvinený z priestupku prehlásenie nemyslí vážne, respektíve bol k jeho uskutočneniu nútený, správny orgán neschváli dohodu o narovnání, ktorej bude takéto prehlásenie súčasťou. Vlastnoručne podpísané prehlásenie obvineného z priestupku je súčasťou priestupkového spisu, ktorým disponuje správny orgán prejednávajúci priestupok. Prehlásenie však nie je priznaním viny, v prípade ak správny orgán schváli dohodu o narovnání, nebude obvinenému z priestupku daný priestupok zapísaný do Rejstříka trestů a v prípade neschválenia dohody o narovnání, nemôže byť dané prehlásenie použité ako priznanie viny v ďalšom konaní (Ondrušová, Ondruš a Vytopil 2018).

3 DISKUSIA

Napriek tomu, že priestupkové právo v Slovenskej a Českej republike bolo formované desaťročia spolu, v súčasnosti nachádzame viaceré rozdiely, najmä od prijatia nového zákona v podmienkach Českej republiky. Orgány verejnej správy, ktoré sú oprávnené prejednávať priestupky (v Slovenskej republike najmä okresné úrady a v Českej republike najmä obecné úrady) môžu v oboch krajinách využiť aj alternatívne spôsoby riešenia sporov. V podmienkach Slovenskej republiky je alternatívnym spôsobom riešenia sporov zmier a v podmienkach Českej republiky narovnání. Nasledujúca Tabuľka 1 zobrazuje komparáciu spomínaných inštitútov.

Tabuľka 1 Komparácia zmieru a narovnání

	Zmier	**Narovnání**
Okruh priestupkov	Návrhové priestupky (urážka na cti a priestupok na úseku práva na prístup k informáciám)	Širší okruh priestupkov (proti verejnému poriadku, občianskemu spolunažívania alebo majetku)
Opravný prostriedok	Nie je prípustný	Odvolanie
Iniciácia orgánu verejnej správy	Povinná	Nie
Možnosť uzatvorenia pred ústnym pojednávaním	Áno	Áno
Priznanie a ospravedlnenie zo strany obvineného	Jedna z podmienok	Jedna z podmienok
Nárok na náhradu škody zo strany poškodeného	Nie	Jedna z podmienok
Náhrada trov priestupkového konania	Nie	Nie
Peňažná čiastka na verejnoprospešný účel	Nie	Jedna z podmienok
Pokuta	Nie	Nie
Zápis do registra	Nie	Nie

Zdroj: Vlastné spracovanie.

Z Tabuľky 1 je zrejmé, že sledované alternatívne spôsoby riešenia sporov majú spoločné, ale aj rozdielne znaky. Z nášho pohľadu jeden z kľúčových rozdielov je možnosť využitia, pričom zmier je možné využiť len v návrhových priestupkoch, ktorými sú priestupok urážky na cti (jeden z priestupkov proti občianskemu spolunažívaniu) a priestupok na úseku práva na prístup k informáciám. V prípade narovnání je jeho využitie možné na celý rad priestupkov, napríklad priestupky proti majetku, občianskemu spolunažívaniu, či proti verejnému poriadku. Veľmi dôležitý rozdiel nachádzame aj v prípade možnosti využitia opravného prostriedku. Voči uzatvorenému zmieru nie je možné využiť žiaden opravný prostriedok, no v prípade narovnání je opravný prostriedok prípustný, jedná sa o odvolanie voči rozhodnutiu. Rozdiel je možné identifikovať aj v iniciácií využitia zmieru a narovnání správnym orgánom. V podmienkach Slovenskej republiky má správny orgán povinnosť pokúsiť sa o zmier, teda je povinný vždy v prípade návrhových priestupkoch uprednostniť vybavenie priestupku zmierom a formou navrhnutia tohto inštitútu účastníkom konania na ústnom pojednávaní. V prípade narovnání v podmienkach Českej republiky, správny orgán spomínanou povinnosťou nedisponuje. Ďalšie dva rozdiely je možné vidieť v prípade povinnosti obvineného z priestupku. Po uzatvorení zmieru nie je obvinený z priestupku povinný nahradiť škodu ani zložiť peňažnú čiastku na verejnoprospešné účely. V prípade peňažnej čiastky je absencia povinnosti zrejmá, keďže zmier nie je možné uzavrieť v prípade priestupkov proti majetku, kde je vyčíslená výška škody. Pri narovnání má však obvinený z priestupku povinnosť uhradiť poškodenému škodu, respektíve bezdôvodné obohatenie a rovnako je povinný uhradiť peňažnú čiastku na verejnoprospešné účely. Napriek výrazným a početným rozdielom medzi spomínanými inštitútmi, je možné definovať aj spoločné znaky. Prvým spoločným znakom je možnosť uzatvorenia zmieru a narovnání pred ústnym pojednávaním. Poškodený (pri návrhových priestupkoch navrhovateľ) a obvinený z priestupku sa môžu dohodnúť o uzatvorení zmieru/narovnání aj pred ústnym pojednávaním z ich vlastnej iniciatívy a takto dohodnutú dohodu predložia správnemu orgánu na ústnom pojednávaní, pretože podmienkou jej platnosti je schválenie správnym orgánom. Jednou z podmienok pre uzatvorenie spomínaných inštitútov je v oboch prípadoch priznanie spáchania priestupku a ospravedlnenie sa obvineného z priestupku voči poškodenému/navrhovateľovi. Daná podmienka je zároveň pomyselným prvým krokom k možnosti uzatvorenia zmieru/narovnání. Záverečné rovnaké znaky patria medzi výhody, ktoré plynú z uzatvorenia zmieru/narovnání obvinenému z priestupku. Medzi spomínané výhody patrí absencia zápisu spáchaného priestupku do národného registra, absencia pokuty zo strany správneho orgánu a v neposlednom rade absencia nutnosti náhrady trov konania.

Narovnání je možné považovať za efektívnejší a viac využiteľný alternatívny spôsob riešenia sporov v porovnaní so zmierom. Napriek viacnásobným novelizáciám zákona o priestupkoch sa žiadna z nich vo väčšej miere nedotýkala zmien pri inštitúte zmieru. Inšpiráciu pre zlepšenie spomínaného inštitútu nemusíme hľadať „na druhom konci sveta“, ale je dostačujúce inšpirovať sa v Českej republike. V rámci návrhov, ktoré by mohli zefektívniť využívanie zmieru je bezpochyby potrebné zaradiť jeho širšie využitie po vzore narovnání. V súčasnosti je možné zmier využiť len na dva priestupky, no bolo by vhodné uvažovať o jeho využití aj pri ďalších priestupkoch, napríklad pri priestupkoch proti majetku. Práve pri priestupkoch proti majetku môže využitie zmieru docieliť efektívnosť ale aj hospodárnosť v priestupkovom konaní. Pri priestupkoch proti majetku je potrebný zdĺhavý proces v rámci ústneho pojednávania, častokrát spojený aj s predvolávaním svedkov. V prípade možnosti uzatvorenia zmieru pri priestupkoch proti majetku by bolo možné veľmi efektívne a rýchlo ukončiť priestupkové konanie k spokojnosti nie len účastníkov konania, ale aj správneho orgánu, ktorému odpadnú povinnosti spojené s klasickým prejednávaním priestupku proti majetku. Pri spomínanej zmene by však bolo potrebné doplniť aj povinnosti obvineného z priestupku. Jednou z týchto povinností by bezpochyby mala byť náhrada škody poškodenému. Zmier by tak bolo možné uzatvoriť len v prípade, že obvinený prizná svoje protiprávne konanie a nahradí poškodenému v plnom rozsahu spôsobenú škodu. Dôležitou súčasťou zmeny zmieru by mal byť aj mechanizmus, ktorý by zabraňoval zneužívanie zmieru obvinenými z priestupku. V súčasnosti sa v podmienkach Slovenskej republiky stretávame s vysokým nárastom priestupkov proti majetku, ktoré spočívajú v takzvaných drobných krádežiach. Správny orgán by mal dbať, aby sa nestávali situácie, kedy by zmier predstavoval beztrestnosť pre obvinených z priestupku. V praxi môže nastať situácia, že obvinený z priestupku spácha niekoľkonásobnú drobnú krádež, no všetky prípady budú ukončené zmierom. V spomínanom prípade by sa *de facto* obvinenému z priestupku nezapísali priestupky do Centrálnej evidencie správnych deliktov a priestupkov, teda hľadí sa na neho ako keby priestupky nespáchal. Správny orgán by pri uzatváraní zmieru, v ktorom by bol obvinený z priestupku niekoľkonásobným páchateľom priestupku proti majetku mal dbať na verejný záujem a zmier v danom prípade neschváliť. Napriek tomu, že je možné narovnání považovať za príklad pre inšpiráciu na zlepšenie inštitútu zmieru, nie je potrebné prevziať všetky aspekty narovnání. Možnosť podania odvolania proti schválenému zmieru môžeme považovať za nelogické a nepotrebné. V prípade zmieru, ktorý je uzatváraný dobrovoľne, bez nátlaku správneho orgánu alebo jedného z účastníkov konania, nie je už z povahy veci potrebná možnosť opravného prostriedku. Možnosťou využitia opravného prostriedku voči dobrovoľne uzatvorenej dohode medzi účastníkmi konania, ktorou zmier bezpochyby je, stratí zmier jednu z najdôležitejších výhod, ktorá spočíva v rýchlosti a efektívnosti konania. Rovnako nie je možné považovať zloženie peňažnej čiastky na verejnoprospešný účel za hodný inšpirácie. Zmier ako taký uzatvára obvinený z priestupku s vedomým, že aj napriek priznaniu k priestupku, nebude povinný platiť náhradu trov konania ani pokutu. Zavedením povinnosti obvineného zložiť peňažnú čiastku na verejnoprospešné účely môže znamenať menšiu ochotu obvineného z priestupku na zmier pristúpiť.

ZÁVER

Využívanie zmieru ako alternatívneho spôsobu riešenia sporov vo verejnej správe sa v podmienkach Slovenskej republiky vyskytuje takmer sto rokov a v súčasnosti má svoje nezameniteľné miesto v priestupkovom konaní. Podstata alternatívnych spôsobov riešenia sporov vo verejnej správe spočíva najmä v zvýšení efektívnosti, hospodárnosti a rýchlosti konania. Využitím zmieru v priestupkovom konaní dochádza k spomínaným následkom nie len pre správny orgán, ale aj pre účastníkov konania. Na strane správneho orgánu je priestupkové konanie vybavené rýchlo, efektívne a hospodárne, šetrí správnemu orgánu čas, ale aj finančné prostriedky na materiál potrebný v priebehu priestupkového konania. Zo strany poškodeného je možné nájsť výhodu hlavne v rýchlom vyriešení a náprave vzťahov s obvineným z priestupku a zároveň zbavenia povinnosti náhrady trov konania v prípade, že návrhový priestupok by bol správnym orgánom odložený. Práve obvinený z priestupku požíva výhody zmieru, ktoré spočívajú v absencií povinnosti uhradiť trovy konania, pokutu ale aj zápisu priestupku do Centrálnej evidencie správnych deliktov a priestupkov. Danú skutočnosť si zákonodarca v podmienkach Českej republiky uvedomil a prijatím zákona o odpovědnosti za přestupky zaviedol do priestupkového práva narovnání, ktoré je možné využiť pri širokej škále priestupkov. V porovnaní s právnou úpravou narovnání v Českej republike sa môže právna úprava zmieru v Slovenskej republike zdať nedostatočná a zastaralá. Je teda len na zákonodarcovi v Slovenskej republike ako sa vysporiada s dlhotrvajúcim ignorovaním zmien v prípade inštitútu zmieru v priestupkovom konaní. V príspevku boli predstavené návrhy na možné zlepšenie a zefektívnenie zmieru po vzore narovnání, no boli spomenuté aj nevýhody, ktoré z pohľadu autora právna úprava narovnání obsahuje. Nie je teda zámerom bezhlavo odkopírovať právnu úpravu narovnání, ale inšpirovať sa pozitívami, ktoré sú už na prvý pohľad zrejmé aj neodbornej verejnosti. V súčasnej dobe dochádza k novelizácií trestných kódexov, ktoré majú vplyv aj na priestupkové právo. Ostáva len očakávať, že zákonodarca pristúpi aj k zmenám v zákone o priestupkoch, najmä v oblasti inštitútu zmieru, ktoré by neboli prospešné len pre zahltené okresné úrady, ale aj pre verejnosť.

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SLOBODA SVEDOMIA AKO LIMIT RODIČOVSKÝCH PRÁV A SUDCOVSKEJ ÚVAHY PRI POSÚDENÍ NAJLEPŠIEHO ZÁUJMU DIEŤATA V RODINNOM PRÁVE[1]

FREEDOM OF CONSCIENCE AS A LIMIT ON PARENTAL RIGHTS AND JUDICIAL DISCRETION IN THE ASSESSMENT OF THE BEST INTERESTS OF THE CHILD IN FAMILY LAW

Mariana Chromeková

Abstrakt

Sloboda svedomia predstavuje jednu z najcitlivejších a najkomplexnejších oblastí ochrany základných práv v rodinnom práve. V sporoch o maloleté dieťa tu dochádza k prelínaniu troch autonómnych, no vzájomne previazaných rovín: slobody svedomia dieťaťa ako subjektu s vyvíjajúcou sa autonómiou, slobody svedomia rodiča pri výkone rodičovských práv a povinností a sudcovskej úvahy pri rozhodovaní o najlepšom záujme dieťaťa v situáciách rodičovskej nezhody. Práve táto triadická dynamika vytvára priestor pre špecifické právne konflikty, ktoré si vyžadujú vysoko individualizované posúdenie založené na zásade najlepšieho záujmu dieťaťa, teste proporcionality a požiadavke hodnotovej neutrality štátu. Cieľom článku je systematické uchopenie slobody svedomia dieťaťa ako metodologického jadra princípu najlepšieho záujmu dieťaťa a formulovanie minimálneho metodologického rámca, ktorý obmedzuje riziko hodnotovej svojvôle v rodinnoprávnom rozhodovaní.

Kľúčové slová: *sloboda svedomia, rodičovské práva, sudcovská úvaha, proporcionalita, najlepší záujem dieťaťa*

Abstract

Freedom of conscience constitutes one of the most sensitive and complex areas of fundamental rights protection within family law. In disputes concerning a minor child, three autonomous yet interrelated dimensions intersect: the freedom of conscience of the child as a subject with developing autonomy, the freedom of conscience of the parent in the exercise of parental rights and duties, and the judicial discretion involved in determining the best interests of the child in situations of parental disagreement. This triadic interaction creates a framework for specific legal conflicts that require a highly individualized assessment grounded in the principle of the best interests of the child, the application of the proportionality test, and the requirement of state value neutrality. This article aims to conceptualize the child's freedom of conscience as the methodological core of the best interests of the child principle and to articulate a minimum methodological framework for judicial decision-making designed to mitigate the risk of value-based arbitrariness in family law adjudication.

Keywords: *freedom of conscience, parental rights, judicial discretion, proportionality, best interests of the child*

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ÚVOD

Sloboda svedomia ako základné ľudské právo sa tradične chápe ako vnútorná autonómia jednotlivca, spočívajúca najmä v jeho schopnosti rozlišovať medzi dobrom a zlom a konať v súlade so svojím morálnym presvedčením.[2] V oblasti rodinného práva však tento koncept nadobúda ešte osobitný význam, keďže sa stáva nielen predmetom individuálneho prežívania a právnej regulácie ale aj potenciálneho konfliktu medzi viacerými nositeľmi práv. V konaniach týkajúcich sa maloletého dieťaťa sa sloboda svedomia totiž neprejavuje izolovane, ale v komplexnej interakcii medzi dieťaťom ako subjektom s vyvíjajúcou sa autonómiou, rodičmi ako nositeľmi rodičovských práv a súdom, ako orgánom verejnej moci, ktorý autoritatívne rozhoduje o najlepšom záujme dieťaťa v situáciách rodičovskej nezhody.[3] Dieťa pritom nemožno vnímať len ako objekt výchovy či ochrany, ale ako osobu s vlastnou identitou a postupne sa rozvíjajúcou schopnosťou vytvárať samostatne hodnotové úsudky. Jeho sloboda svedomia má tak nielen právny, ale aj antropologický rozmer, keďže súvisí s formovaním osobnosti, identity a schopnosti autonómneho rozhodovania. Práve preto sa nachádza na priesečníku formujúceho vplyvu rodičov a ochranného pôsobenia štátu. Rodičia majú prirodzené aj pozitívnoprávne oprávnenie viesť dieťa k hodnotám, ktoré považujú za správne[4], avšak štát je povinný zabezpečiť, aby tento vplyv neprekročil hranice rešpektu k dôstojnosti dieťaťa, jeho identite a budúcej autonómii. Teoretická reflexia tejto témy ukazuje, že sloboda svedomia dieťaťa je dnes jedným z najvýraznejšie sa rozvíjajúcich právnych konceptov. Kým v minulosti bol dieťaťu priznávaný skôr status objektu výchovy, súčasná právna úprava, predovšetkým Dohovor o právach dieťaťa, vyžadujú, aby bolo chápané ako autonómny aktér so schopnosťou tvoriť vlastné hodnotové úsudky.[5]

1. NORMATÍVNY RÁMEC SLOBODY SVEDOMIA

Právnu ochranu slobody svedomia dieťaťa vymedzuje viacúrovňový normatívny rámec, ktorý zahŕňa medzinárodné aj vnútroštátne pramene práva. Kľúčovým dokumentom je Dohovor o právach dieťaťa, ktorý v článku 14 explicitne uznáva právo dieťaťa na slobodu myslenia, svedomia a náboženstva a zároveň ukladá štátu povinnosť rešpektovať rodičovské práva a povinnosti poskytovať dieťaťu usmernenie primerané jeho vyvíjajúcim sa schopnostiam. Na ústavnej úrovni je sloboda svedomia garantovaná článkom 24 Ústavy Slovenskej republiky, ktorý priznáva toto právo každému bez ohľadu na vek. Z uvedeného je zrejmé, že sloboda svedomia dieťaťa nie je odvodeným právom rodiča ani výlučným produktom výchovného pôsobenia, ale autonómnym základným právom, ktorého rozsah sa v čase postupne rozširuje v závislosti od veku a rozumovej vyspelosti dieťaťa. Právo rodiča poskytovať dieťaťu hodnotové vedenie tak nie je absolútne, ale je imanentne limitované právom dieťaťa na rešpektovanie jeho identity a budúcej autonómie.

2. SLOBODA SVEDOMIA DIEŤAŤA AKO METODOLOGICKÉ JADRO NAJLEPŠIEHO ZÁUJMU DIEŤAŤA

Súčasná právna doktrína jednoznačne opúšťa tradičné chápanie rodičovských práv ako formy vlastníckeho oprávnenia vo vzťahu k dieťaťu. Rodič je „povolaný" najmä zabezpečiť

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[2] ŠMID, M. 2011. Ochrana svedomia ako súčasť slobody náboženstva v Európe. [online] 2011. In: <http://www.uski.sk/files/2011-2-7-Smid-Marek-svedomie-sloboda-nabozenstva-europa.pdf>.

[3] Ustanovenie § 35 zákona č.36/2005 Z. z. o rodine.

[4] Článok 4 zákona č. 36/2005 Z. z. o rodine.

[5] Tento náhľad sa vyvíjal postupne. V Deklarácii práv dieťaťa, označovanej aj ako „Ženevská deklarácia" , prijatej v roku 1924 v Ženeve Valným zhromaždením Spoločnosti národov (išlo o prvý dokument na medzinárodnej úrovni explicitne uznávajúci práva detí), bolo dieťa stále chápané predovšetkým ako objekt ochrany poskytovanej deklaráciou, nie ako samostatný subjekt práva s vlastnými právami. Bližšie pozri: <https://www.ohchr.org/en/publications/reference-publications/legislative-history-convention-rights-child-part-1>.

harmonický telesný, psychický, morálny a sociálny vývin dieťaťa.[6] To zabezpečí, aby bol naplnený princíp najlepšieho záujmu dieťaťa, ktorý je vedúcim princípom všetkých konaní týkajúcich sa maloletých detí nielen na vnútroštátnej ale aj medzinárodnej úrovni. V tomto kontexte však princíp najlepšieho záujmu dieťaťa nepredstavuje iba hodnotové východisko, ale plní zároveň interpretačnú, limitujúcu a legitimačnú funkciu pri posudzovaní rodičovských zásahov. Princíp najlepšieho záujmu dieťaťa predstavuje relatívne neurčitý právny pojem, preto si jeho aplikácia vyžaduje metodologickú úpravu založenú na judikatúrnych štandardoch, teda zásade proporcionality a požiadavke hodnotovej neutrality. V sporoch s hodnotovým alebo náboženským rozmerom je toto rozlíšenie obzvlášť dôležité, keďže riziko nevedomej hodnotovej projekcie je pri určovaní najlepšieho záujmu dieťaťa výrazne zvýšené. Práve v tejto rovine sa koncentruje najcitlivejší aspekt konfliktov slobody svedomia v rodinnoprávnych sporoch – vzťah medzi sudcovskou úvahou, rovnosťou rodičovských práv a autonómiou dieťaťa ako subjektu s vyvíjajúcou sa identitou.[7]

3. KONFLIKT MEDZI RODIČMI: ROVNOSŤ RODIČOVSKÝCH PRÁV A NEZLUČITEĽNOSŤ HODNOTOVÝCH PRESVEDČENÍ

V rozhodovacej praxi slovenských súdov sa konflikty týkajúce sa slobody svedomia dieťaťa najčastejšie vyskytujú v súvislosti s náboženskou výchovou, výberom školy, zdravotnými rozhodnutiami či otázkami presťahovania dieťaťa do odlišného kultúrneho alebo hodnotového prostredia.[8] Ide o situácie, v ktorých dochádza k stretu dvoch rovnocenných rodičovských práv, pričom hodnotové, náboženské alebo filozofické presvedčenia rodičov môžu byť zásadne nezlučiteľné. Z metodologického hľadiska však nejde o konflikt „správneho“ a „nesprávneho“ presvedčenia, ale o konflikt dvoch legitímnych výkonov rodičovskej autority, ktorých prípustnosť je potrebné posudzovať prostredníctvom kritérií najlepšieho záujmu dieťaťa a proporcionality zásahu. Aj v oblasti náboženského vplyvu na dieťa existuje jasná hranica medzi legitímnym odovzdávaním viery a neprípustnou indoktrináciou. Rozsudok ESĽP vo veci Vojnity proti Maďarsku[9] potvrdzuje, že súd je povinný skúmať konkrétne účinky rodičovského konania na dieťa. Zároveň sa musí vyvarovať samotnému hodnoteniu vierovyznania rodiča ako takého. Z tohto východiska vyplýva potom aj ďalšia interpretačná zásada, podľa ktorej presvedčenie jedného z rodičov nemôže byť samo osebe dôvodom na marginalizáciu alebo vylúčenie druhého rodiča zo života dieťaťa. Pojem stability dieťaťa tu nemožno vykladať formalisticky ani redukovať na kontinuitu jedného hodnotového prostredia. Naopak, stabilita musí byť chápaná dynamicky, ako schopnosť dieťaťa fungovať v pluralite vzťahov a hodnotových vplyvov, pokiaľ tieto nepredstavujú preukázateľné riziko pre jeho vývin. Ustálená judikatúra dlhodobo zdôrazňuje, že samotné náboženské alebo svetonázorové presvedčenie rodiča nemôže predstavovať legitímny dôvod na obmedzenie jeho rodičovských práv. Táto zásada má zároveň významné metodologické dôsledky, ktoré určujú, že predmetom súdneho posudzovania nemôže byť obsah presvedčenia rodiča ako taký, ale výlučne jeho konkrétny prejav v živote dieťaťa a jeho preukázateľné účinky naň.[10]

Osobitnú výzvu predstavuje aj konflikt dvoch rodičovských svedomí v oblasti vzdelávania. Hoci rodičia disponujú právom podieľať sa na výbere typu školy pre dieťa, výkon tohto práva

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[6] LŐWY, A. a kol.2022. *Najlepší záujem dieťaťa ako hodnotové kritériu pri rozhodovaní v konaniach vo veciach starostlivosti súdu o maloletých*. Bratislava : Nakladatelství C.H.Beck, s.r.o, organizační zložka, 2022, s.151.
[7] Tamtiež, s.97.
[8] Napríklad k rozhodnutiu o nezhode rodičov pri očkovaní dieťaťa pozri rozsudok Krajského súdu v Prešove z 15. decembra 2020, sp. zn. 21CoP/82/2020 či rozsudok Mestského súdu Bratislava II, sp.zn.69P/35/2024 z 25.novembra 2024 , potvrdený Krajským súdom v Trnave, sp.zn.13CoP/69/2025.
[9] Rozsudok ESĽP z 12.mája 2013 vo veci Vojnity proti Maďarsku, sťažnosť č. 29617/07.
[10] Bližšie pozri prípady na ESĽP: Hoffmann proti Rakúsku, rozsudok z 23. júna 1993, sťažnosť č. 12875/87; Palau Martinez proti Francúzsku, rozsudok z 16. decembra 2003, sťažnosť č. 64927/01, K:A proti Fínsku, rozsudok z 14. januára 2003, sťažnosť č. 27751/95.

podlieha limitom vyplývajúcim z práva dieťaťa na prístup ku kvalitnému, objektívnemu a pluralitnému vzdelaniu. Rozsudok ESĽP vo veci Kjeldsen, Busk Madsen a Pedersen proti Dánsku[11] potvrdzuje, že rodič nemôže prostredníctvom výkonu svojich práv izolovať dieťa od plurality názorov výlučne z dôvodu vlastného presvedčenia. Metodologickým jadrom tohto záveru je požiadavka ideovej neutrality štátu, ktorá sa v rodinnoprávnych sporoch premieta do povinnosti súdu posudzovať, či konkrétne vzdelávacie rozhodnutie rozširuje alebo naopak zužuje hodnotový a poznávací horizont dieťaťa.
Judikatúra už tiež zodpovedala otázku, v akej miere požíva právnu ochranu zásah rodiča do zdravia dieťaťa na základe jeho presvedčenia. Český Ústavný súd označil za akceptovateľné právo rodiča odmietnuť zdravotný zákrok z dôvodu presvedčenia, avšak len dovtedy, kým neprekročí hranicu rizika pre dieťa alebo verejné zdravie.[12]
Hoci teda zákon priznáva slobode svedomia rodiča vysokú mieru ochrany, jej výkon môže v určitých situáciách zasahovať do práv dieťaťa už natoľko, že zásah štátu sa stáva nevyhnutným. V situácii, keď sa hodnotový konflikt medzi rodičmi transformuje na súdny spor, prechádza ochrana slobody svedomia dieťaťa do rúk sudcu ako ústavného garanta základných práv. Jeho úloha tu však nespočíva v sprostredkovaní kompromisu medzi dvoma rovnocennými rodičovskými pozíciami, ale v autoritatívnom určení hraníc ich výkonu v súlade s princípom najlepšieho záujmu dieťaťa. Tento zásah je nevyhnutne spojený s uplatnením sudcovskej diskrečnej právomoci, ktorá však musí zostať striktne viazaná na právne relevantné kritériá a nesmie sa opierať o osobné morálne alebo svetonázorové preferencie sudcu. . Orgány verejnej moci by mali pri výkone svojich právomocí uprednostňovať také postupy, ktoré sú spôsobilé naplniť sledovaný cieľ, pričom nepresahujú rámec toho, čo je objektívne potrebné na jeho dosiahnutie.[13]Práve v tomto bode sa pluralita rodičovských presvedčení transformuje do právne relevantného rozhodovania, ktorého nositeľom je sudca ako orgán verejnej moci. Nielen zo skôr spomínanej judikatúry Európskeho súdu pre ľudské práva vyplýva, že sudcovská úvaha v rodinnoprávnych veciach musí byť založená na dôslednom zistení skutkového stavu, individuálnom posúdení situácie dieťaťa a presvedčivom odôvodnení proporcionality zásahu vnútroštátnych súdov do rodinného života, inak dochádza k porušeniu viacerých základných ľudských práv.[14]

4. METODOLOGICKÉ MINIMUM PRE ROZHODOVANIE O SLOBODE SVEDOMIA DIEŤAŤA

Na základe analyzovanej judikatúry a doktrinálnych východísk možno formulovať minimálny metodologický rámec, ktorého dodržanie je nevyhnutným predpokladom legitímneho rozhodovania v sporoch týkajúcich sa slobody svedomia dieťaťa. V rodinnoprávnych veciach je úlohou súdu určiť taký spôsob výkonu rodičovských práv a povinností, ktorý najlepšie zodpovedá najlepšiemu záujmu dieťaťa. Vzhľadom na individuálnu povahu každého prípadu však pojem najlepšieho záujmu dieťaťa nemožno vyčerpávajúcim spôsobom normatívne vymedziť. V situáciách rodičovskej nezhody preto spočíva rozhodovacia zodpovednosť na sudcovi, ktorý je povinný zvoliť riešenie zabezpečujúce ochranu dieťaťa pred nepriaznivými dôsledkami konkrétneho rodinného konfliktu. Obsah najlepšieho záujmu dieťaťa sa pritom môže v závislosti od okolností jednotlivých prípadov významne líšiť. Takto prijaté rozhodnutie sa tiež nemusí nevyhnutne zhodovať s hodnotovým alebo morálnym presvedčením rodiča, čo často vedie k vzniku vnútornej výhrady vo svedomí rodiča. Hoci

[11] Rozsudok Veľkej komory ESĽP z 7. decembra 1976 Kjeldsen, Busk Madsen a Pedersen proti Nemecku, sťažnosť č.5095/71.
[12] Nález ÚS ČR III.ÚS 449/06.
[13] ĽALÍK, T. 2023. *Obmedzovanie ľudských práv a test proporcionality: teória a prax*. Bratislava : Wolters Kluwer SR s.r.o., 2023, s.146.
[14] Najmä článok 8, 9, 14 Dohovoru o ochrane ľudských práv a základných slobôd.

princíp najlepšieho záujmu dieťaťa predstavuje relatívne neurčitý právny pojem, neznamená to, že by bol normatívne neobmedzený. Jeho hranice možno a treba vymedzovať prostredníctvom judikatúrne ustálených kritérií posudzovania legitimity zásahov do základných ľudských práv a slobôd, najmä prostredníctvom požiadaviek proporcionality, racionality a preskúmateľnosti súdneho rozhodovania.
Aby rozhodovanie súdu bolo právne udržateľné, je potrebné identifikovať konkrétny rozmer slobody svedomia, ktorý je v spore dotknutý, teda či ide o otázku náboženskej identity, svetonázorovej výchovy, prístupu k vzdelaniu, zdravotného rozhodovania alebo kombináciu viacerých aspektov. Následne je nevyhnutnou súčasťou rozhodovacieho procesu dôsledné a veku primerané zisťovanie názoru dieťaťa, keďže bez reálneho zohľadnenia jeho postoja, identity a vyvíjajúcich sa schopností nemožno hovoriť o individuálnom posúdení jeho najlepšieho záujmu.[15] Sudca musí analyzovať konkrétne dopady rodičovského konania na dieťa, pričom predmetom dokazovania nemá byť presvedčenie rodiča ako také, ale jeho preukázateľné účinky na fyzický, psychický, sociálny a morálny vývin dieťaťa. V prípade zásahu do rodičovských práv, ktoré sú súčasťou základných ľudských práv, je v závere nevyhnutné vykonať test proporcionality zahŕňajúci posúdenie vhodnosti, nevyhnutnosti a primeranosti zásahu.[16] Práve test proporcionality predstavuje v sporoch dotýkajúcich sa slobody svedomia dieťaťa kľúčový metodologický nástroj, prostredníctvom ktorého možno právne vymedziť výkon sudcovskej diskrečnej právomoci a minimalizovať riziko arbitrárneho rozhodovania. Jeho význam nespočíva iba v technickom hodnotení zásahu do základných práv, ale predovšetkým v štruktúrovaní sudcovskej úvahy tak, aby bola transparentná, preskúmateľná a ústavne udržateľná. Každé obmedzenie základných práv musí byť totiž odôvodnené relevantnými a dostatočnými dôvodmi tak, aby nevznikali pochybnosti o premietaní samotného presvedčenia sudcu do jeho rozhodnutia. Napokon, sudca je povinný reflektovať zásadu hodnotovej neutrality štátu a vyvarovať sa akéhokoľvek uprednostňovania jedného svetonázoru pred druhým.

ZÁVER

Analýza ukazuje, že sloboda svedomia dieťaťa nemôže byť chápaná ako odvodená od rodičovských práv ani ako abstraktná hodnota oddelená od jeho identity a vyvíjajúcich sa schopností. Naopak, predstavuje integrálnu súčasť princípu najlepšieho záujmu dieťaťa a zároveň metodologické východisko pre posudzovanie prípustnosti rodičovských zásahov. Rodičovské práva sú legitímne len potiaľ, pokiaľ slúžia rozvoju autonómie dieťaťa a nezasahujú do jeho dôstojnosti, zdravia a identity. Osobitnú zodpovednosť v tomto kontexte nesie sudca, ktorého diskrečná právomoc musí byť striktne normovaná judikatúrou a metodologickými požiadavkami proporcionality, neutrality a individualizovaného dokazovania. Sudcovské svedomie ako osobná morálna kvalita nemôže nahrádzať právnu argumentáciu ani legitimizovať rozhodnutia založené na domnienkach, stereotypoch či hodnotových preferenciách. Práve naopak, v sporoch o slobodu svedomia je potrebné zvýšené úsilie o transparentné, kontrolovateľné a presvedčivo odôvodnené rozhodovanie. Cieľom tohto článku nebolo vyčerpávajúcim spôsobom postihnúť všetky aspekty predmetnej problematiky, ale načrtnúť možný metodologický rámec jej systematickejšieho uchopenia v praxi.

[15] LUPRICHOVÁ, P. Zisťovanie najlepšieho záujmu v rodinnoprávnych veciach. In: Zborník z medzinárodnej vedeckej konferencie Bratislavské právnické fórum 2013. Bratislava: Univerzita Komenského v Bratislave. 2013, s.319.
[16] ĽALÍK, T. 2023. *Obmedzovanie ľudských práv a test proporcionality: teória a prax*. Bratislava : Wolters Kluwer SR s.r.o., 2023, s.235.

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K ÚČELNOSTI TROV PRÁVNEHO ZASTÚPENIA V KONTEXTE JUDIKATÚRY ÚSTAVNÉHO SÚDU SLOVENSKEJ REPUBLIKY

ON THE EFFECTIVENESS OF LEGAL REPRESENTATION COSTS IN THE CONTEXT OF THE JUDICIARY OF THE CONSTITUTIONAL COURT OF THE SLOVAK REPUBLIC

Viktória Koľveková, Miroslava Kušníriková

Abstrakt

Náhrada trov konania je považovaná za marginálnu súčasť civilného sporového konania a tvorí jej ekonomickú stránku. Legálnu definíciu trov konania upravuje § 251 Civilného sporového poriadku, podľa ktorého trovami konania sú všetky preukázané, odôvodnené a účelne vynaložené výdavky, ktoré vzniknú v konaní v súvislosti s uplatnením alebo bránením práva. Autorky v príspevku poukazujú na vybrané aspekty účelnosti trov právneho zastúpenia v kontexte recentnej judikatúry Ústavného súdu Slovenskej republiky.

Kľúčové slová: *trovy konania, trovy právneho zastúpenia, náhrada, účelnosť, ústavný súd*

Abstract

The reimbursement of legal costs is considered a marginal part of civil litigation and forms its economic aspect. The legal definition of legal costs is regulated by Section 251 of The Code of the Civil contentious proceedings, according to which legal costs are all proven, justified and purposefully incurred expenses that arise in the proceedings in connection with the exercise or defense of a right. In the article, the authors point out selected aspects of the effectiveness of legal representation costs in the context of recent case law of the Constitutional Court of the Slovak Republic.

Key words: *costs of proceedings, legal representation costs, compensation, efficiency, constitutional court*

1 ÚVODNÉ POZNÁMKY K TROVÁM KONANIA

Trovy konania predstavujú integrálnu súčasť a ekonomický aspekt civilného sporového konania, a to napriek tomu, že ich význam v súdnom konaní je až druhotný. Prioritná ochrana, na ktorú sa má civilné konanie totiž zamerať, je ochrana hmotnoprávneho nároku, ktorého sa žalobca domáha v sporovom konaní.[1]

Rozhodovanie o trovách konania je nepochybne súčasťou práva na súdnu ochranu v zmysle čl. 46 Ústavy Slovenskej republiky, hoci je potrebné nevyhnutne dodať, že rozhodovanie o trovách konania zásadne prislúcha všeobecným súdom a ich prieskum ústavným súdom je realizovaný iba celkom výnimočne, najmä v prípade takej interpretácie a aplikácie príslušných ustanovení zákona, ktorá by v sebe zahŕňala črty svojvôle (napr. uznesenie Ústavného súdu SR, sp. zn. III. ÚS 569/2021-17 zo 14. októbra 2021).

V teoretickej rovine plnia trovy konania tri základné funkcie - preventívnu, kompenzačnú a sankčnú, ktorých spoločným menovateľom je eliminácia bezúspešného uplatňovania alebo bránenia práva. Majúc na zreteli aspekt nákladovosti súdneho konania už v momente jeho iniciovania– v čom vnímame preventívny charakter trov konania – a, uvedomujúc si základné zásady rozhodovania o trovách konania, možno konštatovať legitímne očakávania na strane

[1] Kotrecová, A. Uznesenie v systéme súdnych rozhodnutí v civilnom procese. Bratislava: C. H. Beck, 2016. s. 63

úspešnej sporovej strany, ktorej bude priznaná náhrada nákladov vyložených na účinné uplatnenie alebo bránenie práva, v čom možno vzhliadať funkciu kompenzačnú, na strane druhej, neúspešná protistrana bude znášať povinnosť tieto trovy nahradiť, čo možno skutočne vnímať v rovine sankcie za neúspech. Inštitút trov konania je bezprostredne spojený s nákladmi vedenia súdneho sporu, ak ide o strany, ich zástupcov a iné osoby zúčastnené na konaní.[2]

Civilný sporový poriadok v otázke rozhodovania o trovách konania rozlišuje dve fázy. Prvú fázu predstavuje rozhodnutie o nároku na náhradu trov konania v rozhodnutí vo veci samej alebo ktorým sa konanie končí,[3] a v druhej fáze - po právoplatnosti rozhodnutia o nároku na náhradu trov konania - vyšší súdny úradník samostatným uznesením rozhodne o výške trov. Novelou[4] Civilného sporového poriadku účinnou od 1. júla 2023 zákonodarca zaviedol lehotu pre súdneho úradníka na rozhodnutie o výške trov konania, a to do 60 dní odo dňa právoplatnosti rozhodnutia, ktorým bolo rozhodnuté o nároku.

Nie je ničím výnimočným, že strany sporu, realizujúc svoje základné ústavné právo podľa čl. 47 ods. 2 Ústavy SR, sa v súdnom konaní dajú zastúpiť právnym zástupcom, advokátom, a to aj v prípadoch, pri ktorých povinné zastúpenie advokátom Civilný sporový poriadok nevyžaduje. Prítomnosť prvku kvalifikovanej právnej pomoci však priaznivo vplýva na priebeh a úroveň súdneho konania, najmä v tých konaniach, ktorých sú účastné laické sporové strany. Voľba advokáta je všeobecne považovaná za slobodné právo strany, akcentujúc na dôveru k zvolenému advokátovi, ktorý bude hájiť jej právne záujmy v súdnom konaní.[5]

Voľba advokáta však v prípade úspechu strany v konaní priamo determinuje štruktúru výdavkov predstavujúcich trovy právneho zastúpenia a ich výšky, ako marginálnej zložky trov konania, na ktorých náhradu má byť neúspešná strana zaviazaná.[6]

2 TROVY PRÁVNEHO ZASTÚPENIA

2.1 Výdavky predstavujúce trovy právneho zastúpenia

Trovy právneho zastúpenia predstavujú kľúčovú zložku trov konania. Ak je strana v konaní zastúpená advokátom, v prípade jej úspechu je legitímnym očakávanie priznania náhrady aj za výdavky spojené s právnym zastúpením. Medzi tieto štandardne zaradzujeme úkony právnej služby, náhradu za stratu času, náhradu cestovných výdavkov vrátane náhrady za ubytovanie v prípade, ak zvolený advokát má sídla mimo obvodu konajúceho súdu, ako aj novo objavujúcu sa požiadavku na náhradu nákladov za konverziu plnej moci na zastupovanie klienta.

Jednotlivé pravidlá pre určenie hodnoty úkonu právnej služby upravuje vyhláška č. 655/2004 Z. z. o odmenách a náhradách advokátov za poskytovanie právnych služieb v znení neskorších predpisov (ďalej len „vyhláška o odmenách a náhradách advokátov“). Obdobne

[2] Sedlačko, F. In. Števček, M. a kol. *Civilný sporový poriadok. 2. vydanie. Komentár*. Praha: C. H. BECK, 2022. s. 989

[3] O povinnosti rozhodnúť o nároku na náhradu trov konania je potrebné uvažovať aj pri vydaní zabezpečovacieho opatrenia. Pozri Koromház, P. Zabezpečovacie opatrenie podľa Civilného sporového poriadku. In: Legal point. roč. 5, č. 1-2, 2017, s. 24-31.

[4] zrealizovanou zákonom č. 201/2023 Z.z.

[5] O trovách konania je potrebné uvažovať aj v exekučnom konaní. De lege lata úprava však počíta len s vybranými úkonmi advokáta, ako výdavkami, ktoré možno uznať ako trovy exekúcie oprávneného alebo povinného. Pozri MOLNÁR, P. § 199a [Trovy oprávněného a trovy povinného]. In: ŠTEVČEK, M. a kol. *Exekučný poriadok. Komentár*. 3. vydanie. Praha. C. H. Beck, 2018, s. 825-827

[6] Pozn.: s výnimkou prípadov, ak súd aplikujúc § 257 CSP neprizná úspešnej strane nárok na náhradu trov konania z dôvodov hodných osobitného zreteľa detekovaných u protistrany

v predmetnej vyhláške nájdeme úpravu výpočtu náhrady za stratu času[7], ako kompenzáciu prítomnosti advokáta strany sporu na úkone, ktorý prebieha mimo sídla advokáta, sledujúc náhradu za „stratený“ čas advokáta nevyhnutný na dostavenie sa do miesta úkonu, v ktorom má poskytovať právnu službu. Pokiaľ advokát používa vlastné motorové vozidlo, je možné požadovať aj náhradu za použitie motorového vozidla vypočítanú podľa § 1 písm. b) Opatrenia Ministerstva práce sociálnych vecí a rodiny Slovenskej republiky o sumách základnej náhrady za používanie cestných motorových vozidiel pri pracovných cestách v spojení s § 7 zákona č. 283/2002 Z. z. o cestovných náhradách v znení neskorších predpisov. V prípade využitia iného dopravného prostriedku je náhradou cestovného suma cestovného lístka spravidla za využitie vlakovej a autobusovej dopravy. V prípade značnej vzdialenosti sídla advokáta od miesta konania úkonu sa ako trovy konania uplatňujú aj náklady spojené s ubytovaním, pokiaľ advokát docestoval do miesta konania úkonu deň vopred. Uvedená situácia spravidla nastane v prípade, ak je pojednávanie nariadené v ranných hodinách.
Pokiaľ je advokát platiteľom dane z pridanej hodnoty (ďalej len „DPH“), náhrada trov právneho zastúpenia sa navýši o výšku DPH. Vzhľadom na možnú zmenu sadzby DPH v priebehu času, je potrebné pri určovaní výšky DPH uplatniť postup podľa § 27 ods. 5 zákona č. 222/2004 Z. z. o dani z pridanej hodnoty v znení neskorších predpisov (ďalej len „zákon o DPH“), v zmysle ktorého sa pri zmene sadzby dane použije pri každom vzniku daňovej povinnosti sadzba dane platná v deň vzniku daňovej povinnosti. Daňová povinnosť advokáta vzniká dňom dodania služby (§ 19 ods. 2 zákona o DPH), preto je nevyhnutné v kontexte určovania výšky trov právneho zastúpenia použiť pre jednotlivé úkony právnej služby sadzbu DPH účinnú v čase poskytnutia tej ktorej právnej služby. Uvedené je v súčasnosti markantné na Slovensku, kde s účinnosťou od 1. januára 2025 došlo k navýšeniu sadzby DPH z 20% na 23 %. Nemožno však vylúčiť uplatnenie si takých výdavkov v podobe nákladov na právne zastupovanie, ktoré boli vynaložené (právna služba bola poskytnutá) v predchádzajúcich rokoch, za účinnosti 20%-tnej sadzby DPH, ktorá bude k týmto výdavkom prináležať.
Zákon č. 586/2003 Z.z. o advokácii a o zmene a doplnení zákona č. 455/1991 Zb. o živnostenskom podnikaní (živnostenský zákon) v znení neskorších predpisov (ďalej len „zákon o advokácii) predpokladá možnú dohodu medzi klientom a advokátom na odmene za poskytovanie právnych služieb v sume vyššej ako prezumuje vyhláška. V prípade rozhodovania o výške trov konania je však za jednotlivé úkony právnej služby možné v súdnom konaní priznať náhradu len vo výške stanovenej vyhláškou. Ako poukazuje Čollák, neúspešná strana preto nikdy nenahradí úspešnej strane napríklad odmenu právneho zástupcu podielovú, hodinovú alebo zmluvnú, ktorá prevyšuje hodnotu tarifnú, no na druhej strane, vždy uhradí tarifnú hodnotu úkonu právnej služby.[8] Uvedené predstavuje jednu z najdôležitejších záruk pre protistranu, aby sa vedela riadne rozhodnúť o otázke vstupu do konania alebo bránenia sa voči uplatnenému nároku v kontexte nákladov, s ktorými má v konaní počítať či už v kontexte práva na náhradu ak bude úspešná alebo naopak, v rovine náhrady, ku ktorej bude zaviazaná voči protistrane v prípade neúspechu[9].

[7] K určovaniu výšky náhrady za stratu času advokáta pozri Rosputinský, P., Určovanie výšky náhrady za stratu času advokáta 1. časť In: *Bulletin Slovenskej advokácie*, 2024, roč. XXX, č. 6, s. 23-29 a Určovanie výšky náhrady za stratu času advokáta 2. časť In: *Bulletin Slovenskej advokácie*, 2025, roč. XXXI, č. 1, s. 12-20
[8] Čollák, J. In. Čollák, J. a kol. Procesné právo. Význam súdneho procesu a civilné sporové konanie. Plzeň. Aleš Čeněk, 2024, str. 259
[9] K možnostiam súdu rozhodnúť o neprimerane vysokých trovách úspešnej strany v kontexte výšky uplatnenej pohľadávky pozri Löwy, A., Poništ, V. Rozhodovanie súdu o náhrade trov konania v prípade ich neprimeranosti k pohľadávke In.: *Bulletin Slovenskej advokácie*, 2021, roč. XXVII, č. 7-8, s. 10-16

2.2 Rozhodovanie o výške trov konania

Vyšší súdny úradník je pri rozhodovaní o výške trov konania povinný aplikovať pravidlá podľa § 251 CSP, a teda výdavky posudzovať cez prizmu definičných znakov trov konania, a to preukázanosti, odôvodnenosti a účelnosti ich vynaloženia stranou sporu pri uplatnení alebo bránení práva v priebehu konania. Spomenuté definičné znaky musia byť splnené kumulatívne, pričom ak uplatnenému nároku chýba jeden z obligatórnych zákonných znakov, nemožno za takýto úkon priznať jeho náhradu.[10]

Výklad riadneho a včasného vyčíslenia trov konania, ako povinnosti strany sporu bol predmetom prieskumu pred ústavným súdom, ktorý k tejto otázke judikoval nasledovné „*…z ustanovení Civilného sporového poriadku súdu pred rozhodnutím o výške náhrady trov konania podľa § 262 ods. 2 CSP nevyplýva povinnosť vyzývať stranu na vyčíslenie trov konania, predloženie dokladov preukazujúcich ich výšku*“ (Uznesenie Ústavného súdu SR sp. zn. III. ÚS 191/2020 z 27. mája 2020), pričom sťažnosť voči uzneseniu o výške trov konania nemôže byť prostriedkom na nápravu skoršej pasivity strany sporu (Uznesenie Ústavného súdu SR sp. zn. III. ÚS 191/2020 z 27. mája 2020). Zjednodušene povedané, pokiaľ sporová strana do času rozhodnutia o výške trov konania nepreukáže vynaloženie výdavkov, ktorých náhradu požaduje, súd prvej inštancie rozhodne len o výdavkoch podľa stavu súdneho spisu ku dňu rozhodnutia vyššieho súdneho úradníka.

Za ustálený je možné tak považovať názor, že pokiaľ strana nepreukáže výdavky do času, kým vyšší súdny úradník rozhodne o výške trov konania, na ich priznanie stráca nárok, a prípadné iniciovanie konanie pred ústavným súdom po zamietnutí sťažnosti sudcom prvej inštancie, ktorou strana napadla uznesenie o výške trov tento záver nemôže zvrátiť (uznesenie ústavného súdu sp. zn. III. ÚS 418 2021 z 22. júla 2021). V kontexte zamerania nášho príspevku, cestovné a náhrada za stratu času sú takými zložkami trov konania, ktorých výška nie je určiteľná bez primeranej procesnej aktivity sporovej strany a je potrebné, aby sa strana priznania náhrady trov konania domáhala včas, t. j. pred rozhodnutím vyššieho súdneho úradníka (k uvedenému bližšie pozri nález Ústavného súdu SR sp. zn. I. ÚS 562/2024 z 2. októbra 2024).

Preukázateľnosť jednotlivých úkonov týkajúcich sa písomných podaní a účasti na nariadených pojednávaniach, príp. iných úkonoch súdu spravidla sporná nie je a vyšší súdny úradník aplikuje pravidlá pre určenie výšky náhrady za daný úkon zohľadňujúc pravidlá vyhlášky, t.j. či sa jedná o podanie vo veci samej (*a contrario* § 13a ods. 2 vyhlášky) a pri účasti na pojednávaní skúma dĺžku trvania úkonu.

V aplikačnej praxi sa polemickým javí náhrada za poradu s klientom, ktorá častokrát nie je priznávaná pre neúčelnosť. Zaujímavý pohľad na účelnosť daného úkonu potvrdil aj ústavný súd, ktorý konštatoval, že „*úvahe civilného súdu, podľa ktorej účelnosť úkonu právnej služby, a tým aj jeho rozsahu (dĺžka porady s klientom) závisí aj od žalovanej sumy priamo podmieňujúcej význam sporu pre žalovanú stranu, ktorá sa ňou stala nezávisle od svojej vôle, nechýba racionalita ani úsudok charakterizovaný logickosťou. Ide o úvahu nearbitrárnu, a preto aj ústavne udržateľnú*“ (uznesenie Ústavného súdu SR sp. zn. III. ÚS 198/2024 z 10. apríla 2024).

Na uvedené trovy voľba advokáta vplyv nemá. Táto priamo vplýva na nárast celkovej výšky náhrady trov konania v prípade zastúpenia sporových strán, ktoré poveria právnym zastúpením advokáta pôsobiaceho mimo sídla súdov konajúcich vo veci, čím vznikajú výdavky na dopravu a dochádza aj k strate času v prípade, ak sa zvolený zástupca pri výkone svojej činnosti potrebuje dostať do miesta sídla týchto súdov na účel poskytnutia právnej pomoci, pričom spôsob určenia a výška náhrady hotových výdavkov a náhrady za stratu času advokáta za poskytnuté právne služby je upravená vyhláškou.

[10] Čipka, D. Niektoré aspekty trov civilného sporového konania. In Košické dni súkromného práva V. Recenzovaný zborník vedeckých prác. Košice: Univerzita Pavla Jozefa Šafárika v Košiciach. 2024, s. 108

Ak si účastník zvolí advokáta, ktorý vzhľadom na sídlo svojej kancelárie musí na procesný súd dochádzať, účelne vynaloženými nákladmi v súvislosti s poskytnutou právnou pomocou sú aj cestovné náklady tohto advokáta.[11]

3 LIMITY SLOBODNEJ VOĽBY ADVOKÁTA V KONTEXTE ÚČELNOSTI TROV KONANIA

Z predchádzajúceho rozboru § 251 CSP, ako aj vyhlášky o odmenách a náhradách advokátov a súvisiacej judikatúry vyvodzujeme záver, že voľbou advokáta, ktorého sídlo nie je v obvode sídla konajúceho súdu, síce dochádza k nárastu trov právneho zastúpenia o náhradu za stratu času a cestovné náhrady, úspešná strana však legitímne očakáva, že v prípade, ak riadne a včas tieto vynaložené náklady preukáže vyúčtovaním, spolu s osvedčením o technickom stave vozidla, ceny za PHM v prípade použitia vlastného motorového vozidla alebo lístkom preukazujúcim využitie vlakovej či autobusovej dopravy, mala by jej byť za ne priznaná náhrada.

V recentnej judikatúre ústavného súdu však je možné badať, že priznávanie cestovných náhrad a náhrady za stratu času v zmysle vyhlášky môže narážať na limity ústavnosti.

Najvyšší súd ešte za účinnosti Občianskeho súdneho poriadku judikoval, že „*postup súdu smerujúci k tomu, že z nákladov na právne zastúpenie dochádza k vylúčeniu náhrad cestovného a náhrad za stratu času (v tomto prípade uplatňovaných v súvislosti s účasťou na pojednávaniach súdu) len preto, že sídlo advokátskej kancelárie sa nenachádza v obvode (okrese) sídla konajúceho súdu alebo bydliska účastníka konania, nezodpovedá sledovanému cieľu, tak ako to má na mysli § 142 až § 150 O.s.p.*“ (uznesenie Najvyššieho súdu SR, sp. zn. 5 M Cdo 21/2009 z 9. novembra 2010).

Ústavný súd vo svojom náleze judikoval, že *„posúdenie účelnosti trov právneho zastúpenia založené výlučne na kritériu vhodnosti voľby advokáta vzhľadom na sídlo jeho advokátskej kancelárie stojí mimo ústavnokonformného výkladu podústavného práva*“ (nález Ústavného súdu SR sp. zn. I. ÚS 41/2021 z 19. mája 2021). V prejednávanej veci ústavný súd poukázal na to, že pre nepriznanie cestovných náhrad a náhrady za stratu času len s poukazom na to, že zvolený advokát nemá sídlo ani v obvode bydliska zastúpenej strany, ani v obvode sídla súdu nemôže byť samo o sebe dôvodom pre nepriznanie náhrady.

Ústavný súd následne v náleze sp. zn. III. ÚS 216/2022 z 2. júna 2022 konštatoval, že *„je síce v pôsobnosti všeobecného súdu pri rozhodovaní o výške náhrady trov konania posúdiť účelnosť vynaložených trov, dôvodom vyhodnotenia (časti) trov právneho zastúpenia pozostávajúcich z cestovného a náhrady za stratu času ako neúčelných však nemôže byť bez ďalšieho iba samotná okolnosť väčšej vzdialenosti sídla právneho zástupcu od sídla konajúceho všeobecného súdu. Ku každému prípadu rozhodovania o výške náhrady trov konania a posudzovaniu účelnosti vynaložených trov je nevyhnutné pristupovať osobitne, komplexne zohľadniť relevantné okolnosti sporu.“*

Ústavný súd vo svojej skoršej judikatúre zdôraznil, že do slobodnej voľby advokáta strane nie je možné zasahovať, avšak pokiaľ účelovou voľbou advokáta táto sledovala umelé navýšenie trov právneho zastúpenia, čím sa voľba práva stáva šikanóznym výkonom práva, v takom prípade je do požadovanej a preukázanej náhrady možné zasiahnuť.

Prelomový názor vyjadril ústavný súd v náleze sp. zn. III. ÚS 49/2024 z 27. júna 2024, v ktorom vlastnú judikatúru zdržanlivého postoja posúva od aspektu šikanóznosti k základnému aspektu spravodlivosti. „*Je nepochybné, že na markantnom navýšení trov žalovaného sa podpísala okolnosť výberu jeho právneho zástupcu, ktorého sídlo je vzdialené 414 kilometrov od všeobecného súdu konajúceho vo veci. V tejto súvislosti nemožno*

[11] pozri Fiačan I., Kerecman, P., Baricová J. Hellenbart, V., Sedlačko, F. a kol. Vyhláška o odmenách a náhradách advokátov za poskytovanie právnych služieb (advokátska tarifa). Komentár. 1. vydanie. Bratislava : C. H. Beck, 2015. s. 167

opomenúť ani skutočnosť, že na výške cestovného sa podpísala aj nadpriemerná spotreba motorového vozidla právneho zástupcu žalovaného (10,7 l na 100 km), čo vzbudzuje dôvodné pochybnosti o tom, že trovy predstavujúce cestovné možno považovať za účelne vynaložené v rozsahu, v akom bola ich náhrada priznaná napadnutým uznesením sudcu. Napadnuté rozhodnutie okresného súdu, vychádzajúc z jeho odôvodnenia, síce prima facie nevykazuje znaky arbitrárnosti, či iných zjavných pochybení, komplexným zohľadnením okolností prípadu ho však nemožno označiť za súladné s princípom spravodlivosti. Uloženie povinnosti náhrady trov neúspešnej sťažovateľke v rozsahu 13 022,38 eur, z čoho viac ako polovica sumy pripadá na cestovné a náhradu za stratu času (+ tomu prislúchajúce DPH), nadobúda podobu neprimeranej sankcie za iniciovanie sporu."

Prejednávaná vec bola predmetom prieskumu pred ústavným súdom opätovne, pričom tento predchádzajúci záväzný kasačný nález precíznejšie vysvetlil v náleze sp. zn. II. ÚS 363/2025 z 24. septembra 2025 „*Právo strany sporu zvoliť si advokáta podľa svojho uváženia automaticky neznamená, že v prípade jej úspechu v spore bude strane priznaná náhrada všetkých trov právneho zastúpenia. Pokiaľ relevantné okolnosti prípadu (mimoriadna komplikovanosť a právna náročnosť sporu) nevyžadujú zúženie okruhu do úvahy prichádzajúcich advokátov v miere opodstatňujúcej voľbu právneho zástupcu „z opačného konca republiky", priznanie cestovného a náhrady za stratu času vo výške blížiacej sa odmene za úkony právnej služby presahuje účelnosť v zmysle § 251 Civilného sporového poriadku a môže v konečnom dôsledku nadobudnúť podobu neprimeranej sankcie za iniciovanie sporu, čím dôjde k porušeniu princípu spravodlivosti*."

Zohľadniac tento názor ústavného súdu publikovaný v zbierke nálezov podľa nášho názoru zásadným spôsobom ovplyvňuje legitímne očakávania strany sporu na náhradu trov právneho zastúpenia, pokiaľ si zvolila advokáta so sídlom značne vzdialeným od sídla konajúceho súdu. Pokiaľ sporová strana nepreukáže mimoriadnu náročnosť a komplikovanosť súdneho sporu opodstatnene si vyžadujúcu zúženie výberu advokáta a v dôsledku tohoto výberu náhrada cestovného a straty času sa blíži k výške odmeny za poskytnuté právne služby, priznanie náhrady za tieto zložky trov právneho zastúpenia neobstoja v teste účelnosti.

Predmetné rozhodnutie však z nášho pohľadu otvára predovšetkým otázku, do akej vzdialenosti sídla zvoleného advokáta, bude táto voľba účelná? Analogicky nás to vedie k prístupu, ktorým je upravené generovanie *ex offo* advokátov, príp. súdnych exekútorov, či správcov konkurznej podstaty, t.j. pre obvod krajského súdu, v ktorom majú svoje sídlo. V takom prípade by zvolenie advokáta so sídlom v obvode krajského súdu, v ktorého obvode sa nachádza aj súd prvej inštancie, bez ďalšieho malo predstavovať účelnú voľbu advokáta bez možnosti krátenia výšky náhrady cestovného a straty času. Domnievame sa však, že sporová strana by mala byť pri voľbe advokáta so sídlom značne vzdialeným od sídla konajúceho súdu o uvedenom poučená aj zo strany konajúceho súdu, aby vedela dôsledne zvážiť náklady spojené s právnym zastúpením zvoleného zástupcu, ktorému náklady na cestovné a stratu času objektívne vznikať budú.

Domnievame sa, že súd prvej inštancie by mal na danú judikatúru ústavného súdu reagovať už v prvej fáze rozhodovania o trovách konania, t.j. pri rozhodovaní o nároku na náhradu trov, kedy by konajúci súd zohľadnil hrozbu vysokých náhrad za cestovné a stratu času v pomere náhrady, ktorú úspešnej strane priznáva. Pri rozhodovaní o výške by následne nedochádzalo k modifikácii pravidiel pre jej určenie daných vyhláškou, ktorých náhrady sa úspešná strana dožaduje. Zasahovanie do výšky trov konania, ak strane bola priznaná náhrada trov konania voči protistrane v plnom rozsahu považujeme za postup *ultima ratio* s cieľom ochrany neúspešnej strany pred neprimeranou sankciou v rovine ústavného prieskumu, avšak za právne čistejšie považujeme zohľadnenie tejto skutočnosti už pri rozhodovaní o nároku na náhradu trov konania, s presvedčivým odôvodnením tohoto postupu súdom prvej inštancie.

Vieme si predstaviť aj výrok, ktorým by súd prvej inštancie rozhodol o nároku na náhradu trov konania vo výške 100%, avšak nárok na náhradu trov cestovných náhrad a náhrady za stratu času obmedzil napríklad vo výške 50%.
Pre komplexnosť výkladu k otázke limitov voľby právneho zástupcu poukazujeme aj na to, že právo na právne zastúpenie a na náhradu trov právneho zastúpenia v súdnom konaní nemožno uprieť subjektu (právnickej osobe) zamestnávajúcemu osoby s právnickým vzdelaním, ktorá si napriek tomu zvolí advokáta na zastupovanie v súdnom konaní. Takýto záver nemožno vyvodiť zo žiadneho ustanovenia Civilného sporového poriadku. V prezentovanom rozhodnutí zároveň ústavný súd formuluje názor, podľa ktorého trovy právneho zastúpenia je potrebné zásadne považovať za vynaložené účelne. Za neúčelne vynaložené ich možno považovať iba v celkom výnimočných situáciách, najmä v prípade zneužitia práva na zastúpenie advokátom. (nález Ústavného súdu SR, sp. zn. I. ÚS 264/2016 zo 17. augusta 2016)
Za opačný extrém v kontexte skúmania účelnosti trov právneho zastúpenia možno považovať zastúpenie sporovej strany advokátskou kanceláriou, ktorej jediným spoločníkom a konateľom je práve táto sporová strana. Ústavný súd v tejto súvislosti prezentoval, že takémuto zastúpeniu chýba hospodársky účel pridanej hodnoty právneho zastúpenia advokátom. Je preto zjavne mylný a v rozpore s ústavnými právami protistrany (ktorá bude zaviazaná na náhradu trov konania) taký výklad § 251 CSP, podľa ktorého sú účelne vynaloženými výdavkami trovy právneho zastúpenia žalobcu, ktorý bol v spore zastúpený advokátskou kanceláriou, ktorej je jediným spoločníkom a konateľom. (nález Ústavného súdu SR sp. zn. III. ÚS 113/2023 z 11. mája 2023)

4 ZÁVER

V príspevku sa autorky zamerali na limity voľby advokáta v kontexte účelnosti trov právneho zastúpenia podľa § 251 CSP. Poukázaním na recentnú judikatúru Ústavného súdu Slovenskej republiky v danej otázke konštatujú, že hoci voľba advokáta je naďalej výsostným, ústavným právom strany, pokiaľ si strana zvolí advokáta majúceho sídlo mimo obvodu sídla konajúceho súdu, nemôže legitímne očakávať nárok na plnú náhradu trov konania titulom cestovného a straty času vo výške podľa vyhlášky, pokiaľ nepreukáže vzhľadom na komplikovanosť, náročnosť či špecifickosť sporu opodstatnenosť tejto voľby, v konečnom dôsledku majúcej kvalitatívny charakter účelnosti.

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VLAJKY VLAJÍ

THE FLAGS ARE FLYING

Michal Márton

Abstrakt

Veřejný prostor na poměrně dlouhou dobu ovládla problematika svěšování ukrajinských vlajek z veřejných budov v České republice. Tuto nikterak nehodnotím a zůstávám nestranný, nicméně, je-li tato problematika tak zásadní, a to ponechávám na názoru každého čtenáře, přimělo mne to k zamyšlení, zda a jakým způsobem je v českém právu upraveno nakládání s vlajkami jak českými, tak zahraničními. Příspěvek je logicky strukturován do tří, na sebe navazujících částí. Po úvodu bude řešeno postavení české vlajky jako státního symbolu a nakládání s ní, následně se pozornost zaměří na vlajky zahraniční. V závěrečné části je pozornost věnována sankcím, pokud jde o nakládání s vlajkami.

Klíčová slova: *vlajka, státní vlajka České republiky, vlajka cizího státu, státní symbol, sankce*

Abstract

The public space has been dominated for a relatively long time by the issue of the hanging of Ukrainian flags from public buildings in the Czech Republic. I do not evaluate this in any way and remain impartial, however, if this issue is so fundamental, and I leave that to the opinion of each reader, it made me think about whether and how the handling of both - Czech and foreign flags is regulated in Czech law. The contribution is logically structured into three, interconnected parts. After the introduction, the position of the Czech flag as a state symbol and its handling will be addressed, then attention will be focused on foreign flags. In the final part, attention is paid to sanctions regarding the handling of flags.

Key words: *flag, national flag of the Czech Republic, flag of a foreign state, state symbol, sanctions*

1 ÚVOD

Vyvolalo-li emoce a debaty ve veřejném prostoru svěšování vlajek Ukrajiny z veřejných budov v České republice, stejnou vlnu emocí vyvolalo jejich vyvěšování. Lze to dokladovat například odpovědí Kanceláře prezidenta republiky podle zákona č. 106/1999 Sb., o svobodném přístupu k informacím týkající se vyvěšení ukrajinských vlajek v prostorách Pražského hradu. Tazatel vznesl následující připomínky: V případě, že neexistuje právní důvod státu ČR, žádám jako občan ČR svěšení veškerých vlajek státu Ukrajina z prostor Pražského hradu, a následně v případě, že neexistuje právní důvod a vlajky nebudou svěšeny, žádám, aby moje podání bylo řešeno jako trestní oznámení pro porušení zákona neznámým pachatelem a bylo předáno státnímu zastupitelství. Na to kancelář odpověděla, že žádný právní důvod k vyvěšení státní vlajky státu Ukrajina v prostorách Pražského hradu neexistuje, vyvěšení této vlajky je symbolem vyjadřujícím podporu Ukrajině bránící se útokům cizích ozbrojených sil; pro úplnost se uvádí, že ne vše musí být upraveno právem, neboli ne vše musí být spojeno s právním důvodem; pokud jde o záležitost uvedenou výše v bodě 2, Kanceláři prezidenta republiky není známo, že by vyvěšení státní vlajky státu Ukrajina v prostorách Pražského hradu mělo zakládat podezření ze spáchání trestného činu a nevidí tedy důvod k podání trestního oznámení; pokud však žadatel navrhuje, aby při absenci

předmětného právního důvodu bylo jeho podání považováno za trestní oznámení a aby je Kancelář prezidenta republiky předala státnímu zastupitelství, tak se upozorňuje, že své trestní oznámení si každý musí podat sám a nepředpokládat, že to za něj učiní někdo jiný, např. Kancelář prezidenta republiky.[1] Tato odpověď bude rovněž využita v kontextu posuzování postavení vlajek cizích států. Autor dodává, že v textu využívá toliko úřední a právní dokumenty, a to vzhledem k cíli práce, jímž se analýza právní úpravy nakládání s tuzemskou vlajkou a vlajkami cizích států ve veřejném prostoru. Proto emoce nedokladuje odkazy na různé demonstrace a demonstrativní gesta politiků či veřejnosti.
Státní vlajky se začaly vyskytovat až v 17. století. Některé vzniky jako symboly politických unií, např. vlajky Velké Británie nazývaná Union Jack (kombinace anglického svatojiřského kříže, skotského svatoondřejského kříže a irského kříže sv. Patrika, jež byla přijata roku 1606). Většina vlajek ale vznikla ze standard či praporů politických skupin, jež bojovaly za svůj národ. Nejznámější z těchto vlajek je vlajka s trikolorou, která se stala symbolem svobody během francouzské revoluce roku 1789.[2]

2 PRÁVNÍ POSTAVENÍ VLAJKY ČESKÉ REPUBLIKY

2.1 Vlajka České republiky jako státní symbol

Právním předpisem upravujícím státní symboly na ústavní úrovni je ústavní zákon o státních symbolech České republiky.[3] Státními symboly České republiky jsou velký a malý státní znak, státní barvy, státní vlajka, vlajka prezidenta republiky, státní pečeť a státní hymna. Státní vlajka se skládá z horního pruhu bílého a dolního pruhu červeného, mezi něž je vsunut žerďový modrý klín do poloviny délky vlajky. Poměr šířky vlajky k její délce je 2 : 3.[4] Ústavní pořádek státní symboly toliko definuje. ¨

2.2 Užití státní vlajky

2.2.1 Okruh oprávněných osob

Užívání státních symbolů upravuje zákon o užívání státních symbolů České republiky[5] Státní vlajku *vyvěšují Poslanecká sněmovna a Senát, poslanec a senátor, Kancelář Poslanecké sněmovny a Kancelář Senátu, prezident republiky a Kancelář prezidenta republiky, vláda a Úřad vlády České republiky, Veřejný ochránce práv a Kancelář Veřejného ochránce práv, ministerstva a jiné správní úřady, kraje, obce, městské obvody či městské části územně členěných statutárních měst a městské části hlavního města Prahy, Ústavní soud, soudy a státní zastupitelství, ozbrojené síly a bezpečnostní sbory, diplomatické mise a konzulární úřady České republiky, Bezpečnostní informační služba a Úřad pro zahraniční styky a informace, Úřad pro ochranu osobních údajů, Nejvyšší kontrolní úřad, Rada České republiky pro rozhlasové a televizní vysílání, Česká národní banka, státní fondy, vysoké školy, školy a školská zařízení zapsaná ve školském rejstříku podle zvláštního zákona státní kulturní a vědecké instituce*, na budovách, v nichž sídlí, při příležitosti státních svátků, a při příležitostech celostátního významu, zejména v den smutku nebo v den státního smutku, vyhlášených vládou. Vlajková výzdoba začíná zpravidla v 16 hodin dne předcházejícího a končí v 8 hodin dne následujícího po dni uvedeném výše. Namísto státní vlajky lze použít její napodobeninu s odlišným vzájemným poměrem šířky a délky.

[1] Pražský hrad. Odpověď podle zákona č. 106/1999 Sb., o svobodném přístupu k informacím ze dne 23. 03. 2023, č.j. KPR 1508/2023.
[2] Greigová, Ch. Průvodce vlajkami celého světa, str. 6.
[3] zákon České národní rady č. 3/1993 Sb., o státních symbolech České republiky, ve znění pozdějších předpisů.
[4] § 1, § 4 odst. 1 zákona o státních symbolech České republiky.
[5] zákon č. 352/2001 Sb., o užívání státních symbolů České republiky, ve znění pozdějších předpisů.

Státními svátky jsou 1. leden - Den obnovy samostatného českého státu, 8. květen - Den vítězství, 5. červenec - Den slovanských věrozvěstů Cyrila a Metoděje, 6. červenec - Den upálení mistra Jana Husa, 28. září - Den české státnosti, 28. říjen - Den vzniku samostatného československého státu a 17. listopad - Den boje za svobodu a demokracii a Mezinárodní den studentstva.[6]

Právní úprava dne smutku a dne státního smutku není regulována. Vyhlásí jej svým usnesením vláda.[7] V historii samostatné České republiky byl vyhlášen státní smutek na den 14. 9. 2001 (uctění památky obětí teroristických útoků ze dne 11. září 2001), dny 21. -23. 12. 2011 (uctění památky prezidenta Václava Havla), den 12. 10. 2019 (den pohřbu zpěváka Karla Gotta), 3. 2. 2020 (uctění památky zesnulého předsedy Senátu Parlamentu České republiky Jaroslava Kubery), 23. 12. 2023 (uctění památky zesnulých při střelbě na Filozofické fakultě Univerzity Karlovy), den smutku byl vyhlášen na 5. 1. 2025 (uctění obětí zemětřesení v jihovýchodní Asii), 8. 4. 2005 (den pohřbu papeže Jana Pavla II.), 17. 4. 2010 (uctění památky havárie letadla u Smolensku).

Vyjma budov státních fondů, vysokých škol, škol a školských zařízení zapsaných ve školském rejstříku podle zvláštního zákona, státních kulturních a vědeckých institucí mohou ostatní výše jmenovaní mít vlajku vyvěšenu trvale. Státní vlajku mohou vyvěšovat vedoucí diplomatických misí a konzulárních úřadů České republiky na služebních dopravních prostředcích, a to při slavnostních příležitostech, a pokud je to v zemi jejich působení obvyklé. Ostatní fyzické a právnické osoby a organizační složky státu mohou užít státní vlajku vhodným a důstojným způsobem kdykoliv.

Na základě výše uvedeného lze shrnout, že existují 2 kategorie subjektů, které nakládají se státní vlajkou České republiky. Příslušnost k těmto kategoriím rozlišuje nakládání s ní. Zatímco osoby spadající do první kategorie podle zákona vlajku vyvěšují, osoby spadající do druhé kategorie vlajku užívají.

První kategorii je možno dále vnitřně členit do dvou skupin. První skupinu tvoří orgány a organizace státu či jím řízené nebo ovládané organizace, uvedené v § 2 odst. 1 písm. a) – s) zákona o státních symbolech. Zákon jim stanovuje imperativním způsobem povinnost vyvěsit státní vlajku při příležitosti státních svátků, a při příležitostech celostátního významu, zejména v den smutku nebo v den státního smutku vyhlášených vládou, což dokladuje dikce zákona, podle níž vlajku „vyvěšují“ nikoli „mohou vyvěsit“. Nedokonavý vid dává rovněž logiku, neboť příležitosti se opakují buď pravidelně (státní svátky) nebo nepravidelně (smutek, státní smutek, jiná významná příležitost). Převedením slovesa „vyvěšují“ do vidu dokonavého se dosáhne tvar „vyvěsí“, což potvrzuje imperativní význam. Vedle toho z převážné části týmž subjektům uvedeným v § 2 odst. 1 písm. a) – s) zákona o státních symbolech umožňuje zákon státní vlajku vyvěsit celoročně. Lze v této souvislosti konstatovat, že je vhodné, aby na budovách nejvýznamnějších institucí, minimálně v rozsahu Parlament České republiky - Poslanecká sněmovna a Senát, Kancelář Poslanecké sněmovny a Kancelář Senátu, prezident republiky a Kancelář prezidenta republiky, vláda a Úřad vlády České republiky, státní vlajka celoročně umístěna byla právě s ohledem na to, že jde o státní symbol, který tyto instituce prezentuje navenek. V rámci této kategorie subjektů ještě existuje samostatná skupina, kterou tvoří vedoucí diplomatických misí a konzulárních úřadů České republiky. Je zákon opravňuje státní vlajku vyvěsit na služebních dopravních prostředcích, a to při slavnostních příležitostech, a pokud je to v zemi jejich působení obvyklé. Znamená to tedy, že oprávnění vyvěsit státní vlajku na služebním dopravním prostředku, vychází ze dvou předpokladů – musí jít o slavnostní příležitost (např. defilé, cesta na významnou událost v místě působení, přijetí delegace aj.) a současně je to obvyklé v zemi působení diplomata

[6] zákon č. 245/200 Sb., o státních svátcích, o ostatních svátcích, o významných dnech a o dnech pracovního klidu, ve znění pozdějších předpisů

(obvykle země působení sama způsob umístění vlastní vlajky takto prezentuje). A contrario je možno vyvodit závěr, že vlajka by na vozidle neměla být umístěna při jeho běžné jízdě (běžné služební cesty, cesty spojené s údržbou vozidla) nebo při existenci jiných zvyklostí v zemi diplomatické mise.
Druhou kategorii tvoří ostatní fyzické a právnické osoby a organizační složky státu, které mohou užít státní vlajku vhodným a důstojným způsobem kdykoliv. Oproti předchozí kategorii, která upravuje toliko vyvěšení vlajky, je ostatním subjektům dáno výrazně širší pole působnosti. Musí být pouze naplněna podmínka vhodného a důstojného způsobu užití vlajky. Typicky se lze u fyzických osob setkat s užíváním státní vlajky v rámci sportovních utkání v ochozech sportovišť, nejen v souvislosti s návraty hokejistů v letech 1998 a 2025, na demonstracích a setkáních všeho druhu; z právnických osob je možno typické užití státní vlajky vysledovat v objektech spojených se zahraničními investicemi; a to v podobě umístění státní vlajky České republiky, státní vlajky země investora, případně loga společnosti. Stejně tak to platí i u významnějších českých právnických osob.

2.2.2 Způsob užití státní vlajky

Zákon o užívání státních symbolů stanoví pro užívání státní vlajky následující pravidla: při vodorovném umístění směřuje modrý klín vpravo při čelním pohledu na objekt, na němž je vlajka umístěna; bílá barva je vždy nahoře; při svislém umístění je při čelním pohledu na objekt, na němž je státní vlajka umístěna, bílá barva vždy vlevo a modrý klín směřuje vždy dolů, státní vlajka se vyvěšuje jen na čelní straně budovy, státní vlajka se umísťuje vždy v předsednictvu shromáždění, žerď pro státní vlajku se umísťuje vlevo od řečnického pultu při čelním pohledu na tento pult, státní vlajka nesmí být použita k zahalení pomníku nebo desky, jež mají být odhaleny, vlajková žerď nesmí být opatřena žádnými ozdobami a kromě státní vlajky na ni nesmí být upevněna žádná jiná vlajka, státní vlajka se vztyčuje a snímá bez přerušování; při vztyčování a při snímání se státní vlajka nesmí dotýkat země, při užití státní vlajky na znamení smutku se státní vlajka spustí na půl žerdi, při smutečních obřadech nesmí být státní vlajka spouštěna spolu s rakví do hrobu nebo žároviště, na státní vlajce nesmí být žádný text, vyobrazení, obraz, znak nebo odznak, kytice, smuteční závoj a nesmí být svazována do růžice, státní vlajka nesmí být používána v poškozeném nebo znečištěném stavu.[8]

2.2.3 Pravidla vyvěšování při užití více vlajek

Pro vyvěšování státní vlajky České republiky spolu s vlajkami dalších států, ale i dalšími vlajkami platí následující pravidla.[9] Státní vlajka se umísťuje vždy na nejčestnější místo; to je z čelního pohledu na objekt vlevo při vyvěšení 2 státních vlajek, uprostřed při vyvěšení lichého počtu státních vlajek, v prostřední dvojici vlevo při vyvěšení sudého počtu státních vlajek, první zleva, případně i poslední v řadě, při vyvěšení většího počtu vlajek než 5.

3 PRÁVNÍ POSTAVENÍ VLAJEK CIZÍCH STÁTŮ

Narozdíl od právní úpravy nakládání se státní vlajkou České republiky, není nakládání s vlajkami cizích států upraveno zákonem. Pravidla pro vyvěšování vlajek cizích států jsou dána pouze potud, je-li vlajka cizího státu vyvěšována současně se státní vlajkou České republiky (viz kapitola 2.2.3). Dále je možno odkázat na sdělení Ministerstva vnitra v souvislosti se zacházením s dalšími vlajkami v případě státního smutku. Pokud je současně se státní vlajkou na jiném stožáru vyvěšená jiná vlajka, resp. jiné vlajky, je nutné spustit na půl žerdi i tyto vlajky, a to do stejné výše, jako je vlajka státní.[10] V tomto případě však nejde

[8] § 9 tamtéž.
[9] § 8 tamtéž.
[10] Ministerstvo vnitra. Informace k vyvěšování státní vlajky při státním smutku.

o právní úpravu, ale zvyklost. Jinak lze s vlajkami cizích států nakládat libovolně, aniž by byla osoba postižitelná podle právního řádu České republiky. Nelze však vyloučit jiné následky, jako např. v rámci diplomacie (protestní nóta cizího státu; předvolání velvyslance aj.). v situaci, kdy se bude cizímu státu jevit nevhodné zacházení s jeho státní vlajkou. Stejně tak nelze v souvislosti s vlajkou cizího státu vyloučit následky podle trestního, přestupkového či občanského práva České republiky - odpovědnost za trestný čin poškození cizí věci podle § 228 trestního zákoníku, přestupek proti majetku podle § 8 zákona o některých přestupcích či odpovědnost za škodu podle občanského zákoníku[11] za předpokladu, že vlajka cizího státu bude jako věc poškozena či zničena (např. politím barvou, roztrháním, spálením), to se však vztahuje k její podstatě jako věci, nikoli symbolu cizího státu. Lze tedy uzavřít, že vlajka cizího státu nepožívá v České republice právní ochrany, a současně nejsou stanovena samostatná pravidla pro vyvěšování či užívání vlajek cizích států; tato jsou stanovena pouze v případě, je-li vlajka cizího státu vyvěšena společně se státní vlajkou České republiky.

4 PORUŠENÍ PRAVIDEL NAKLÁDÁNÍ S VLAJKAMI

Chráněna je toliko státní vlajka České republiky, přičemž protiprávní jednání ve vztahu k tuzemské státní vlajce je postihováno jako přestupek. Není dána trestně právní odpovědnost v souvislosti se zacházením se státní vlajkou České republiky. Přestupku na úseku zákona o užívání státních symbolů se dopustí fyzická, právnická nebo podnikající fyzická osoba, která zneužije, hrubě znevází, zničí, poškodí nebo odcizí státní symbol České republiky, nevyvěsí státní vlajku, ač je povinna ji vyvěsit, nebo vyvěsí státní vlajku v rozporu s pravidly pro vyvěšování státní vlajky České republiky.[12] Litera zákona odhaluje, že za přestupek je postihována trojí kategorie jednání.

První je možno charakterizovat jako útok na státní vlajku (zneužití, hrubé znevážení, zničení, poškození nebo odcizení). V kontextu výkladu výše uvedeného je nutno poukázat na skutečnost, že objektem, na který pachatel útočí, je státní vlajka jako symbol, nikoli věc (srov. též výklad v kapitole 3), přičemž takto vlajky cizích států chráněny nejsou a jejich poškození, zničení nebo odcizení lze trestat toliko z hlediska jejich věcné entity (např. hodnota odcizené věci). Naproti tomu protiprávní zacházení se státní vlajkou České republiky je postižitelné, stejně jako u vlajky cizího státu, jako útok proti věci, ale rovněž jako útok proti státnímu symbolu. Za tento přestupek je možno uložit správní trest pokuty až do výše 30.000 Kč.

Druhá kategorie postihuje nesplnění imperativu vyvěsit státní vlajku tak, jak bylo pojednáno v kapitole 2.2; stanovení deliktní odpovědnosti tak podtrhuje přikazující povahu normy týkající se vyvěšování státní vlajky České republiky, jak bylo rovněž výše pojednáno.

Poslední skutková podstata postihuje porušení pravidel užívání státní vlajky, o nichž je pojednáno v podkapitole pod bodem 2.2.2. Za porušení posledních dvou povinností je stanoven správní trest pokuty až do výše 10.000 Kč.

5 ZÁVĚR

Česká právní úprava reguluje toliko nakládání se státní vlajkou České republiky, jakožto státním symbolem, stanoví taxativně vyjmenovaným organizacím povinnost vyvěsit státní vlajku ve státní svátky a při dalších příležitostech celostátního významu; demonstrativně zákon uvádí den státního smutku a den smutku; a současně oprávnění vyvěsit státní vlajku trvale. Současně zákon o užívání státních symbolů stanoví způsob vyvěšování státní vlajky České republiky, opětovně závazný pro výše uvedené kategorie, ostatní osoby mohou státní vlajku užívat vhodným způsobem, což je širší oprávnění, které by bylo možno v nejkrajnějším případě popsat tak, že mohou státní vlajku České republiky užívat způsobem, který není

[11] zákon č. 40/2009 Sb, trestní zákoník, ve znění pozdějších předpisů; zákon č 251/2016 Sb., o některých přestupcích, ve znění pozdějších předpisl; zákon č 89/2012 Sb., občanský zákoník, ve znění pozdějších předpisů.
[12] § 13 odst. 1 písm. a), f), g) zákona o užívání státních symbolů

protiprávní, či výrazně nevhodný. Za porušení pravidel v souvislosti se státní vlajkou České republiky je vyvozována odpovědnost za přestupek.
Užívání vlajek cizích států není naproti tomu právně regulováno vůbec, a to včetně nakládání s nimi způsobem, který by byl v případě státní vlajky České republiky protiprávní. Pravidla užívání (vyvěšování) vlajek cizích států jsou regulována pouze v situaci, je-li vlajka cizího státu užita současně s vlajkou České republiky. Emoce tedy mohou být různého druhu a intenzity, ale pokud vlajka cizího státu není užita (vyvěšena) v rozporu s pravidly pro užívání (vyvěšování) státní vlajky České republiky, není toto jednání jakkoli právně závadné.

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4. zákon č. 245/2000 Sb., o státních svátcích, o ostatních svátcích, o významných dnech a o dnech pracovního klidu, ve znění pozdějších předpisů
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Miroslav Mimra

Abstrakt

Tento článek se zabývá problematikou poskytování informací podle zákona č. 106/1999 Sb., o svobodném přístupu k informacím a s ním souvisejícího zneužívání práva na informace. Je popsán princip zákazu zneužívání práva na informace. S použitím judikatury vysokých soudů je ukázán jejich postup vymezení zneužívání práva na informace, jako důvodu pro odmítnutí práva na informace. Dále je nastíněn postup povinného subjektu v případě zneužití práva na informace. Rovněž je zmíněn postup žadatelů, jak se mohou proti postupu povinného subjektu bránit.

Klíčová slova: *právo na informace, svobodný přístup k informacím, zneužití práva, zneužití práva na informace*

Abstract

This article addresses the issue of providing information under Act No. 106/1999 Coll., on the right to access information, and the related abuse of this right. It describes the principle of prohibiting the abuse of the right to information. Using the case law of the high courts shows their approach to defining the abuse of the right to information as a reason for refusing the right to information. It also outlines the procedure to be followed by the obligated entity in the event of abuse of the right to information. It also mentions the procedure for applicants to defend themselves against the actions of the obligated entity.

Key words: *right to access information, free access to information, abuse of rights, abuse of the right to access information*

1 ÚVOD

Právo na informace představuje jeden z prvků kontroly veřejné správy občany, neboť jim umožňuje přístup k informacím, které potřebují pro výkon této kontroly nad její činností s cílem zajištění transparentnosti fungování veřejné správy. Je také důležitou pojistkou proti nehospodárnému nakládání s veřejnými prostředky a zneužívání veřejné moci. Svobodný přístup k informacím mimo kontroly veřejné správy umožňuje veřejnou diskuzi a angažovanost občanů ve veřejné správě. Nejvyšší správní soud právo na informace pojal jako základní politické právo občanů.[1] Primárním právním předpisem zajišťujícím přístup občanů k informacím je zákon č. 106/1999 Sb., o svobodném přístupu k informacím (dále jen „informační zákon“). Veřejná správa má povinnost subjektům, které o to požádají, poskytovat informace. Tato povinnost se opírá o princip publicity, tj. otevřenosti veřejné správy. Právo na přístup k informacím souvisejícím s výkonem veřejné správy, je zásadní pro kontrolu ze strany laické veřejnosti nad výkonem veřejné správy jejími orgány (jako pojistka proti zneužití veřejné moci), tak i z pohledu spoluúčasti (angažovanosti) občanů na veřejném dění v občanské společnosti.

[1] Viz Rozsudek Nejvyššího správního soudu ze dne 15.11.2012, č.j. 2 Ans 13/2012-14.

Právo na svobodný přístup k informacím však není bezbřehé a má své limity, kdy poskytnutí informací může být povinným subjektem odmítnuto z důvodu zneužití práva. Poskytování informací souvisejících s výkonem veřejné správy v určitém rozsahu nepodléhají také například utajované informace. Jak je patrné z rozsudku Nejvyššího správního soudu 21 As 29/2025-32[2] není důvodem pro neposkytnutí informace podle informačního zákona[3] skutečnost, že je informace označena za utajovanou, bez toho aniž by naplnila formální i materiální znak utajované informace. Ve výjimečných případech je nutné při neposkytnutí utajované informace provádět test proporcionality, jehož obsahem je poměřování mezi veřejným zájmem na utajování informace a právem na přístup k informacím. Tímto výkladem soud posunul hranice svobodného přístupu k informacím, neboť dosud se podle zaužívané správní praxe utajované informace bez dalšího neposkytovaly s pouhým odkazem na příslušné ustanovení zákona. V praxi často vznikají spory o důvod pro odepření poskytnutí informací. Na jedné straně stojí žadatelé, kteří vykonávají své právo a žádají poskytnutí konkrétních informací a na druhé straně jsou subjekty do jejichž práv např. na ochranu osobnosti podle čl. 10 Listiny poskytnutí informací zasahuje. Povinný subjekt pak musí zvažovat, které právo převažuje, zda právo na poskytnutí informací nebo právo na ochranu osobnosti.

2 PRÁVO NA INFORMACE

Právo na informace vychází mimo jiné z Listiny základních práv a svobod (dále jen „Listina“), která je součástí ústavního pořádku ČR. Právo na informace patří mezi základní politická práva zakotvená ve druhém oddílu druhé hlavy v článku 17 Listiny. Právo na informace podle čl. 17 Listiny vychází z práva subjektu na přístup k informacím a povinnosti veřejné správy požadované informace subjektu poskytnout. Ústavní soud v nálezu I. ÚS 517/10[4] dovodil, že pokud je informace součástí veřejné sféry, dopadá na ni právo na informace podle čl. 17 Listiny a čl. 10 Úmluvy. Tomuto právu pak odpovídá povinnost veřejné moci, přičemž klíčovým prvkem tohoto vztahu je participace občanské společnosti na věcech veřejných, tzn. informování veřejnosti se týká fungování veřejné moci jako takové, kdy pomocí těchto informací může veřejnost veřejnou moc kontrolovat.

Byť právo na informace svědčí všem, tak judikatura[5] dovodila dvě základní skupiny žadatelů, tzv „privilegované žadatele“, kteří ve společnosti plní roli „hlídacího psa“ a ostatní žadatele. Ve skupině privilegovaných žadatelů jsou zahrnuti novináři, nevládní neziskové organizace, ale i jednotlivci, kteří se systematicky zabývají veřejným děním a o svých zjištěních informují veřejnost. Tím přispívají k veřejné diskuzi a naplňují roli hlídacího psa. Jak je uvedeno již výše, základní zákon upravující svobodný přístup k informacím v ČR je informační zákon. Právo na přístup k informacím je však upraveno i v celé řadě dalších zákonů, např. v zákonu č. 123/1998 Sb., o právu na informace o životním prostředí. Kopecký jako další příklady uvádí zákon č. 256/1013 Sb., o katastru nemovitostí; zákon č. 499/2004 Sb., o archivní a spisové službě nebo zákon č. 140/1996 Sb., o zpřístupnění svazků vzniklých činností bývalé státní bezpečnosti.[6] Ústavní soud v nálezu Pl. ÚS 2/10[7] zdůraznil význam svobody a práva na informace, jak důležitý základ demokratické společnosti. Poskytování informací posiluje důvěru společnosti v demokratické zřízení a je veřejnou kontrolou nad výkonem veřejné

[2] Rozsudek Nejvyššího správního soudu ze dne 29.04.2025, č.j. 21 As 29/2025-32.
[3] ve smyslu § 7 zákona č. 106/1999 Sb., o svobodném přístupu k informacím.
[4] Nález Ústavního soudu ze dne 15.11.2010, sp. zn. I. ÚS 517/10.
[5] Srovnej Nález Ústavního soudu ze dne 17.10.2017, sp. zn. IV. ÚS 1378/16.
[6] KOPECKÝ, Martin. *Správní právo: Obecná část.* 3. vydání, Praha : C. H. Beck. 2023, s. 469, ISBN 978-80-7400-919-8.
[7] Nález pléna Ústavního soudu ze dne 30.03.2010. sp. zn. Pl. ÚS 2/10.

moci. Veřejná diskuze o veřejných věcech je pro demokratický právní stát nezbytná. Omezení práva na informace musí být poměřováno s nezbytností omezení přístupu k informacím s ohledem na podmínky každého jednotlivého případu.

3 ZÁKAZ ZNEUŽITÍ PRÁVA NA INFORMACE

Zákaz zneužití práva obecně vychází z obecných právních principů. Zneužití práva spočívá ve výkonu nebo uplatňování subjektivního práva anebo v interpretaci objektivního práva v rozporu s jeho účelem a v rozporu s objektivním právem. V praxi jsou některé případy zneužití práva zcela zřejmé. Avšak v některých případech bývá obtížné určit, kdy došlo k naplnění objektivního i subjektivního prvku. Objektivní prvek je uplatňování práva v rozporu se smyslem a účelem normy. Smysl a účel právní normy však někdy není z úmyslu zákonodárce zřejmý (nelze jej s jistotou dovodit ani jinými interpretačními metodami) a musí být interpretován soudy. Subjektivní prvek spočívá v úmyslu jednající osoby, který musí být veden zjevnou snahou jednající osoby způsobit újmu jinému nebo poškodit veřejný zájem. Úmysl jednající osoby, pokud není zjevný, je obtížně prokazatelný. Pojem „veřejný zájem“ patří mezi neurčité právní pojmy. Zde pak vzniká ze strany povinného subjektu prostor pro volné správní uvážení, stejně jako i prostor pro svévoli a zneužití postavení úřední osoby, kdy oprávněný subjekt se musí dovolávat svého práva u nadřízeného orgány nebo se obrátit s žalobou na nezávislý soud. K zneužití práva může tedy docházet ze strany žadatele, tak i ze strany povinného subjektu. Zde je pak patrné nerovné vrchnostenské postavení povinného subjektu, neboť zneužití práva ze strany žadatele je nazýváno „zneužitím práva“, zcela zjevné a úmyslné zneužití práva ze strany povinného subjektu je nazýváno jen „nesprávným úředním postupem“. Žadatel zneužívající právo je nazýván různými hanlivými přídomky, např. kverulant a osoba na straně povinného subjektu je stále „ctihodný úředník“.

Zneužití práva je v praxi velmi obtížné přesně uchopit. K zneužívání práva může docházet jak samotným žadatelem, tak i povinným subjektem. Stejně tak jak v oblasti práva soukromého, tak v oblasti práva veřejného. Zneužití práva může nabývat nejrůznějších podob. Zásada zákazu zneužití práva je materiálním korektivem, který zabraňuje zjevné nespravedlnosti, ke které by došlo užitím zákona bez dalšího. Vzhledem k tomu, že zneužití práva je právní zásadou, nikoliv právní normou, k jejímu užití by mělo docházet přiměřeně.

V případě práva na informace se jedná o takový způsob výkonu práva, který svým účelem nesměřuje k získání požadovaných informací. Jeho účel je jiný, kdy dochází k újmě u žadatele nebo u povinného subjektu, např. paralyzováním jeho činnosti opakovaným podáváním rozsáhlých žádostí. Listina v čl. 17 odst. 4 stanovuje, že právo vyhledávat a šířit informace lze zákonem omezit, přičemž podle odst. 5 čl. 17 Listiny podmínky a provedení stanoví zákon. Z uvedeného je zřejmé, omezení přístupu k informacím musí být upraveno zákonem. V praxi se pro odmítnutí poskytnutí informací používal tzv. faktický důvod pro odmítnutí žádosti o informace dle informačního zákona, spočívající nejen ve zneužití práva na informace, ale i v neexistenci požadované informace nebo při opakovaných žádostech stejným žadatelem o již jednou poskytnuté informace.

Veřejná správa v případech opakovaných žádostí nebo více žádostí podaných stejným žadatelem často argumentuje tím, že povinné subjekty jsou zavalovány velkým množstvím žádostí, které mohou vést ke zhoršení jejího fungování a schopnosti plnit i další její úkoly. Této argumentaci však nelze plně přisvědčit, neboť pokud by veřejná správa poskytované informace zveřejňovala (například prostřednictvím webových stránek), pak by mohla žadatele odkázat na již zveřejněné informace a rovněž by tím zabránila podávání žádostí o tyto informace jinými žadateli. Veřejná správa však sama od sebe nemá velký zájem na své transparentnosti a zveřejňování jí shromažďovaných informací. Pokud by veřejná správa shromažďované informace sama zveřejňovala, pak by mohla odhalit svoji nízkou produktivitu práce (velké prodlevy mezi získáním a zveřejněním informace) a neschopnost získané informace dále efektivně zpracovávat a analyzovat (nezachycení zřejmých trendů nebo rozporů v datech). Proto se někdy nelze divit zneužívání práva žadateli podáváním opakovaných žádostí, kteří žádají povinný subjekt o informace a místo poskytnutí informací obdrží pouhé výmluvy, proč tak učinit nelze. Případně obdrží jen část z požadovaných informací. Jak již je uvedeno výše, pokud by povinné subjekty zveřejňovaly veškeré informace, které poskytly v rámci informačního zákona, na svých webových stránkách, pak by si mohly ušetřit část práce při vyřizování obdobných žádostí. To by však mohlo vést k zájmu jiné části veřejnosti o danou problematiku, čehož se povinné subjekty bojí. Proto povinné subjekty zveřejňují jen některé informace, které byly poskytnuty na základě žádosti podle informačního zákona. Zveřejňováním všech informací by došlo ke zvýšení transparentnosti veřejné správy.

Na druhou stranu opakované žádosti či žádosti ve podávané ve větším množství podávané některými žadateli mohou vést k tomu, že povinný subjekt musí vyčlenit lidské a materiální zdroje na řešení tohoto velkého množství žádostí jimi podávaných, což může zpomalit nebo zkomplikovat správní procesy. I přes vyšší zatížení veřejné správy z důvodu vyřizování většího objemu žádostí o poskytnutí informací je toto zatížení kompenzováno vyšší transparentností veřejné správy. Mnoho z těchto žádostí směřuje do oblastí netransparentního výkonu veřejné správy. Je nutné rozlišovat, zda žadatel znovu žádá o poskytnutí informací, protože mu je povinný subjekt neposkytl v požadovaném rozsahu, struktuře nebo k požadované věci, od případů, kdy tak žadatel činí šikanózně. Údajné zneužívání práva na informace mohou povinné subjekty používat jako zástěrku pro svoji neochotu poskytnout informace i v případech, kdy má žadatel na jejich poskytnutí legitimní zájem. To pak má za následek bezdůvodné omezení přístupu k informacím. Ne každý žadatel je ochoten se svých práv domáhat soudní cestou.

Pokud by veřejná správa informace získané při své činnosti a placené z veřejných prostředků v přiměřeném rozsahu zveřejňovala, pak by si mohli žadatelé potřebné informace dohledávat samostatně. Větší publikaci zpracovávaných informací se však veřejná správa často brání s poukazem na nesmyslné důvody. Povinné subjekty při vymýšlení důvodů pro neposkytnutí informací se pak chovají nepředvídatelně a svévolně. To je patrné zejména v případech, kdy žadatel požaduje poskytnutí informací o platech a odměnách vedoucích pracovníků veřejné správy. V těchto případech kreativita povinných subjektů často hraničila se zneužíváním práva. Proto musely vysoké soudy judikaturně stanovit hranici pro poskytování těchto informací. Z důvodu právní jistoty je nutné mít nastavená pravidla tak, aby nedocházelo k zneužívání práva na informace.

4 VYMEZENÍ ZÁKAZU ZNEUŽÍVÁNÍ PRÁVA NA INFORMACE

Informační zákon neposkytuje dostatečně rozsáhlé vymezení zákazu zneužívání práva na informace, které by pokrývalo různorodé situace, které se v praxi objevují. Proto bylo nutné pomocí soudní judikatury zacelit mezery v zákoně. Judikatura v oblasti zneužívání práva na informace je rozsáhlá, což potvrzuje výše uvedené, že jak ze strany žadatelů, tak i ze strany povinných subjektů dochází k nesprávné interpretaci práva na svobodný přístup k informacím. V některých případech žadatelé požadují poskytnutí informací opakovaně nebo v nepřiměřeném rozsahu. Naopak povinné subjekty bezdůvodně odmítají žadatelům poskytnout požadované informace, přičemž někdy argumentují prapodivnými důvody.

Povinný subjekt při vyřizování žádosti o poskytnutí informací postupuje podle informačního zákona a správního řádu[8]. Žadatel tak může postupovat při ochraně svých podle ustanovení těchto zákonů a pokud není s výsledkem správního řízení spokojen, tak se může obrátit na nezávislý soud. Žádost o poskytnutí informací může být podle informačního zákona podána jak písemně, tak i prostředky elektronické komunikace a to i prostřednictvím prostého e-mailu bez zaručeného elektronického podpisu. V případě podání odvolání proti rozhodnutí povinného subjektu již tento postup není možný a podání musí být učiněno písemně v listinné podobě s podpisem nebo prostředky elektronické komunikace se zaručeným elektronickým postupem. Podání žádosti vychází z dikce informačního zákona, který je založen na neformálnosti, co největší možné míře jednoduchosti, rychlosti, ale odvolání se již řídí správním řádem. Tento rozdíl není příliš logický, neboť pokud lze žádost podat neformálně, pak i činit odvolání by mělo být možné stejnou formou. Odvolání však probíhá podle správního řádu, který tuto možnost nepřipouští. Zde by měl zákonodárce provést úpravu v informačním zákonu tak, aby i odvolání v případě žádosti o poskytnutí informací mohlo být činěno neformálně. V případě, že žadatel není spokojen s výsledkem odvolacího řízení, může využít ochrany svých práv ve správním soudnictví, v rámci něhož by mělo dojít k nápravě případných chyb v rozhodnutích učiněných povinným subjektem nebo v rámci odvolacího řízení. Právě správní soudy zacelovaly svoji judikaturou mezery v informačním zákoně v souvislosti se zneužitím práva na informace.

Nejvyšší správní soud, který sjednocuje svojí judikaturní činností rozhodování krajských soudů v oblasti správního soudnictví, v rozsudku 1 Afs 107/2024-48[9] dospěl k závěru, že zneužití práva spočívá ve výkonu subjektivního práva, kterým dochází k neodůvodněné újmě jiného subjektu nebo společnosti. Takovýto výkon práva, kterým dochází k jeho zneužití, s ohledem na zásadu, že zákon speciální ruší zákon obecný, je pouze zdánlivě dovolený. Výkon práva, který ve své podstatě zneužívá právo, je zneužitím práva, kterému se právní ochrana neposkytuje. Zároveň Nejvyšší správní soud konstatoval, že zákaz zneužití práva je výjimkou z aplikace práva a při jeho aplikaci je nutné posuzovat konkrétní okolnosti každého případu. Nelze se tedy spokojit s naplněním formálních znaků, ale je nutné i posuzovat materiální naplnění znaků ve vztahu ke každému konkrétnímu případu. Nejvyšší správní soud v jeho rozhodnutí 1 As 70/2008-74[10] zákaz zneužití práva definoval jako obecné pravidlo vyplývající z hodnotového základu materiálního právního státu. Dále uvedl, že zákaz zneužití práva je nejzazším prostředkem, který má být uplatňován restriktivně, který má být aplikován při současném poměřování s jinými právními principy, na kterých je založen český právní řád. Zde je nutné aplikovat zejména princip právní jistoty zakotvený ve správním řádu, který zajišťuje stabilitu, předvídatelnost a důvěryhodnost rozhodování veřejné správy, aby se příjemci rozhodnutí mohli spolehnout na platnost svých práv a povinností. Tento princip se realizuje skrze konkrétní zásady, jako je ochrana práv nabytých v dobré víře, zákaz retroaktivity, legitimní očekávání, stabilita rozhodování atd.

S ohledem na výše uvedené pak Nejvyšší správní soud v rozsudku 1 AS 27/2011-81[11] dospěl k závěru, že princip obecné svobody jednání jednotlivce zaručený v čl. 2 odst. 3 Listiny může být omezen jen v krajních případech zneužívání práva. Aby se takovému jednání, spočívajícímu v zneužívání práva nepřiznala právní ochrana, musí být zneužití práva dostatečně prokázáno. Nestačí tedy pouhý subjektivní pocit povinného subjektu, že jde o zneužití práva, který někdy veřejná správa používala ke zdůvodnění neposkytnutí

[8] Zákon č. 500/2004 Sb., správní řád, v platném znění, dále jen „správní řád “.
[9] Rozsudek Nejvyššího správního soudu ze dne 10.11.2005, č.j. 1Afs 107/2004.
[10] Usnesení rozšířeného senátu Nejvyššího správního soudu ze dne 27.05.2010, čj. 1 As 70/2008-74.
[11] Rozsudek Nejvyššího správního soudu ze dne 04.05.2011, č.j. 1 As 27/2011-81.

požadovaných informací. Obdobně Nejvyšší správní soud v rozsudku 4 As 112/2011-55[12] dospěl k závěru, že jednání subjektu, které formálně odpovídá znění právního předpisu, avšak může být považováno za nespravedlivé, neboť je v rozporu se základními hodnotami a působí společnosti újmu, není výkonem subjektivního práva, ale jeho zneužitím. Tento výklad zneužití práva však pracuje s neurčitými právními pojmy, neboť „jednání, které může pociťovat jako nespravedlivé", jiný subjekt takto pociťovat nemusí. Rovněž záleží na subjektivním výkladu, co jsou „základní hodnoty a rozumné uspořádání společenských vztahů". I přes výklad některých těchto pojmů Ústavním soudem není jejich obsah dostatečně jasně vymezen. Často záleží na správním uvážení povinného subjektu. Každé jednání lze posuzovat optikou více pohledů. Každý tento pohled se může jevit jako logický a oprávněný. Přesto bude muset soud rozhodnout v každém individuálním případu, který z nich má vyšší váhu. Rovněž je nejasný výklad „způsobení újmy společnosti". Dovedeno ad absurdum by způsobenou újmou společnosti mohlo být vyřizování jakékoliv žádosti o poskytnutí informací, neboť osoba ji vyřizující nemá dostatek času na vyřizování jiné agendy „klábosení s kolegy o výsledcích včerejšího fotbalového zápasu v kuchyňce při popíjení kávy". Veřejná správa by měla hledat rezervy spočívající v nízké produktivitě práce i nízkých odborných znalostech úředních osob, které jsou příčinou používání opravných prostředků a tím vzniklé „zvýšené zátěži". Proto zákaz zneužití práva a jeho aplikace v praxi musí být chápána jako výjimka z pravidla, kterou je nutné pečlivě posuzovat vzhledem k okolnostem případu a přesvědčivě v rozhodnutí správního orgánu zdůvodnit.

Výše je uvedeno obecné dovození zákazu zneužití práva. Nejvyšší správní soud se otázkou zákazu zneužití práva na informace zabýval ve svém rozsudku 7 As 101/2011-66[13], kdy řešil nárok na osvobození žadatele od soudních poplatků. Zde Nejvyšší správní soud dovodil, že velké množství žádostí o informace, které mají šikanózní povahu a cíleně paralyzují orgány veřejné moci mohou mít negativní důsledky pro její fungování. Proto dospěl k závěru, že široce pojaté právo na svobodný přístup k informacím dle informačního zákona nesmí popírat smysl a účel práva na svobodný přístup k informacím. Odkaz soudu na citlivou regulaci uvedených případů pak nevyplňuje mezeru v zákoně, neboť opět záleží na volné správní úvaze a „citlivosti" správního orgánu. Za určitých okolností je však skutečně nutné mít k dispozici institut, kterým lze poskytnutí informací odmítnout.

V rozsudku Nejvyššího správního soudu 1 As 96/2021-43[14] v případě, kdy povinný subjekt odmítal poskytnout informace s tvrzením, že žadatel zneužívá právo na informace za účelem získání informací, které využije v soukromoprávním sporu proti povinnému subjektu, vyslovil soud názor, že informační zákon vychází ze zásady, že se informace poskytují. Neposkytnutí informací pak musí být řádně odůvodněno a používáno restriktivně.

Nejvyšší správní soud v rozsudku 9 Ans 7/2012-56[15] posuzoval situaci, kdy žadatelka vedla s povinným subjektem více sporů o poskytnutí informací podle informačního zákona. Každá žádost o poskytnutí informací měla jinou podstatu. Proto soud dospěl k závěru, že vícero sporů o poskytnutí informací nelze vykládat jako šikanózní výkon práva. Rovněž, že nelze připisovat k tíži žadatele právní názor povinného subjektu, který se domnívá, že žadatelka měla využít pro získání požadovaných informací postup nahlížení do spisu upravený ve správním řádu, nikoliv žádost o poskytnutí informací dle informačního zákona. K posuzování

[12] Rozsudek Nejvyššího správního soudu ze dne 30.05.2012, č.j. 5 As 112/2011-55.
[13] Rozsudek Nejvyššího správního soudu ze dne 26.10.2011. č.j. 7 As 101/2011-66.
[14] Rozsudek Nejvyššího správního soudu ze dne 01.04.2022. č.j. 1 As 96/2021-43.
[15] Rozsudek Nejvyššího správního soudu ze dne 27.06.2012. č.j. 9Ans 7/2012-56.

šikanózního výkonu práva a s ním spojeného zneužití práva je potřeba postupovat restriktivně.

Z hlediska zneužití práva Nejvyšší správní soud v rozsudku 5 As 193/2018-48[16] uvedl, že pokud se povinný subjekt domnívá, že žádost žadatele je šikanózní nebo zneužitím práva a z tohoto důvodu ji povinný subjekt odmítá, pak to musí povinný subjekt výslovně uvést a zdůvodnit. Odmítnutí poskytnutí informací podléhá soudnímu přezkumu. Soudní řízení však neslouží k nápravě nedostatků nebo doplňování důvodů správních rozhodnutí. Z uvedeného je zřejmé, že povinný subjekt v případě, kdy odmítá poskytnutí informací z důvodu zneužití práva, musí tuto skutečnost ve svém rozhodnutí uvést a zároveň ji musí i přesvědčivě zdůvodnit. Tím soud omezil praxi, kdy povinné subjekty odmítaly poskytování informací s odkazem na zneužití práva, aniž by toto zneužití řádně zdůvodnily.

V rozsudku Nejvyššího správního soud 6 As 68/2140[17] vyslovil soud názor, že povinný subjekt nemůže svým rozhodnutím zbavit žadatele práva i v budoucnu požadovat informace. Dále vyložil, že zákaz zneužití práva je nutné chápat jako výjimku z pravidla, kterou je nutné posuzovat podle momentálních individuálních rozhodných skutečností, tj. podle okolností daného jednotlivého případu. Proto nelze předem paušálně určit, kdy se jedná o zneužití práva a předem vyloučit žadatele z možnosti požádat o poskytnutí informací. Zákaz zneužití práva je pružný institut, který musí reagovat na velké množství situací, které se mohou v praxi vyskytnout a na které nemůže obecná norma předem pamatovat. Nelze tak předem konkrétním žadatelům bránit rozhodnutím povinného subjektu v možnosti podávat žádost o informace, resp. se tímto postupem vyvázat z poskytování informací určitému žadateli. Vždy je nutné podle konkrétních okolností každého individuálního případu vyhodnotit, zda se jedná či nejedná v daném případě o zneužití práva.

V rozsudku 10 As 112/2015-54[18] se nejvyšší správní soud zabýval otázkou poskytování informací o platech u povinného subjektu. Žádost o informace o platech a odměnách u povinného subjektu je častým typem žádostí, neboť prostřednictvím nich veřejnost provádí kontrolu nad činností veřejné správy. Mediálně známý je případ premiéra nečase, který nepřiměřené odměny své milenky zdůvodňoval tím, že „dře jako kůň“. Obecně se informace o platech a odměnách vedoucích pracovníků povinného subjektu poskytují, ačkoliv se jejich poskytování povinné subjekty brání. Nejvyšší správní soud v rozsudku rozšířeného senátu 8 As 55/2012-62[19] dovodil, že pokud by se v jednotlivých případech ukázalo, že žádosti o informace mají za cíl poškodit legitimní zájmy těch, o jejichž platech má být informováno, lze právo na informace za striktně vymezených podmínek odepřít na základě zákazu zneužití práva. Dovodit však, že žádost o informace má tokový cíl není jednoduché. Podle rozsudku Nejvyššího správního soudu 6 As 189/2017-32[20] samotná skutečnost, že žadatel nesouhlasí s výsledky činnosti úřední osoby v jiné věci, nezakládá důvod pro závěr o zneužití práva, kdy žadatel žádá informace o takové úřední osobě.

Z pohledu poskytování informací o platech se jako důležitý jeví nález Ústavního soudu IV. ÚS 1378/19[21] ve kterém řešil otázku poskytování informací o platech zaměstnanců. V nálezu vymezil čtyři kritéria pro posouzení zásahu do základních práv žadatele při odmítnutí jeho

[16] Rozsudek Nejvyššího správního soudu ze dne 06.04.2020, č.j. 5 As 193/2018-48.
[17] Rozsudek Nejvyššího správního soudu ze dne 25.06.2014, č.j. 6 As 68/2014-21.
[18] Rozsudek Nejvyššího správního soudu ze dne 24.09.2015, č.j. 10 As 112/2015-54.
[19] Rozsudek rozšířeného senátu Nejvyššího správního soudu ze dne 22.10.2014, č.j. 8 As 55/2012-62.
[20] Rozsudek Nejvyššího správního soudu ze dne 10.01.2018, č.j. 6 As 189/2017-32.
[21] Nález Ústavního soudu ze dne 17.10.2017, sp. zn. IV. ÚS 1378/16.

žádosti o přístup k informacím. První kritérium posuzuje účel vyžadované informace, kdy její poskytnutí by mělo přispět k veřejné diskuzi. Druhým kritériem je povaha požadované informace, kdy požadovaná informace by měla umožnit účast na veřejných záležitostech. Třetím kritériem je role žadatele, který má mít za cíl informovat společnost a plnit roli hlídacího psa. Nemusí se jednat o novináře nebo nějakou organizaci, ale může jím být i jedinec, který individuálně pátrá za účelem přispění k veřejné diskuzi. Čtvrtým kritériem je existující a dostupná informace – požadovaná informace musí existovat a být dostupná. Taktéž je nutné provést test nezbytnosti v demokratické společnosti, který posuzuje, zda zásah do práva na informace odpovídá naléhavě společenské potřebě a zda je proporcionální ke sledovanému cíli. V této souvislosti se jako značně úzkoprsý jeví rozsudek Městského soudu v Praze 17 A 77/2023-48[22], ve sporu Spolku Šalamoun proti Ministerstvu vnitra, kdy pro zamítnutí žaloby soud využil argumentaci, že žalobce v podané žádosti nikterak blíže neobjasnil účel, pro který žádal o poskytnutí požadované informace, která se týká činnosti povinného subjektu. Dále pak argumentoval tím, že z podané žádosti není zřejmé, jak žalobce hodlá s požadovanými informacemi naložit, respektive jak měly požadované informace přispět ke kvalifikované veřejné diskuzi. Dále pak konstatoval, že ani postavení „společenského hlídacího psa“ samo o sobě nevylučuje, že i ze strany takového subjektu může dojít ke zneužití práva na informace. Pokud by subjekt plnící účel veřejného hlídacího psa musel předem deklarovat účel, způsob naložení s informacemi a příspěvek ke kvalifikované diskuzi, pak by uvádění těchto informací mohlo zmařit účel jeho pátrán. Povinný subjekt by předem věděl, za jakým účelem subjekt informace požaduje a mohl by je účelově pozměnit nebo odstranit. Rovněž ne výsledek každé pátrání prostřednictvím svobodného přístupu k informacím musí nezbytně vést k zjištěním, která jsou hodná jejich publikace a otevřou společenskou diskuzi. Povinné subjekty jsou při skrývání své nezákonnosti značně vynalézavé. Podstatná je možnost provádění kontroly ze strany žadatelů nad činností veřejné správy. Již potencionální možná kontrola ze strany veřejnosti může vést k omezení nezákonnosti výkonu veřejné správy, korupce a dalších negativních jevů. Smyslem a účelem informačního zákona je podrobit veřejnou správu kontrole, nikoliv předem deklarovat výsledky této kontroly. Pokud by žadatelé předem věděli o nezákonnosti, pak by již o informace žádat nemuseli. V případě žadatelů plnících roli hlídacího psa se často jedná o pouhé indicie nebo podezření na základě nepřímých informací, které se nemusí prokázat. Podle rozsudku Nejvyššího správního soudu 1 As 17/2008-67[23] je účelem poskytování informací podle informačního zákona primárně kontrola veřejné správy, zejména vynakládání veřejných prostředků a hospodaření s veřejným majetkem.

Poskytnutí těchto informací na základě žádosti lze za vymezených podmínek v některých případech odmítnout z důvodu zneužití práva, zejména pokud cílem žádosti je využít poskytnuté informace k vydírání, šikanování, ovlivňování úředních osob nebo správního řízení. Nejvyšší správní soud v rozsudku 4 As 385/2019-55[24] dovodil, že důvodem pro odmítnutí žádosti o poskytnutí informací, který by měl šikanózní charakter není skutečnost, že by tyto informace žadatel mohl zneužít v soutěži politických stran. Právo na informace slouží ke kontrole občanů nad výkonem veřejné správy a tudíž může sloužit i ke kritice volených zástupců.

5 ZÁVĚR

Právo na svobodný přístup k informacím je právem chráněným Ústavou ČR. Právo žadatele požadovat po povinném subjektu není bezbřehé. Nesmí být uplatňováno šikanózně a nesmí

[22] Rozsudek Městského soudu v Praze ze dne 12.12.2023, č.j. 17 A 77/2023-48.
[23] Rozsudek Nejvyššího správního soudu ze dne 07.05.2008, č.j. 1 As 17/2008-67.
[24] Rozsudek Nejvyššího správního soudu ze dne 26.02.2020, č.j. 4 As 385/2019-55.

vykazovat znaky zneužití práva. Takové jednání nepožívá soudní ochrany a žádost žadatele může být z tohoto důvodu odmítnuta. Odmítnout vyhovění žádosti o poskytnutí informací podle zákona o svobodném přístupu k informacím lze pouze v případech, že zneužití práva je ze samotné žádosti nebo jejího kontextu zjevné. V některých případech je nutné provést test proporcionality (vážení zájmů), aby bylo možné posoudit, zda převažuje zájem žadatele na poskytnutí informace nebo zájem tyto informace neposkytnout.

Na příkladu judikatury vysokých soudů je ukázáno dotváření výkladu (vyplňování mezer) zákona o svobodném přístupu k informacím. Tato judikatura byla a je vodítkem k zákonodárcově dotváření zákona o svobodném přístupu k informacím. Princip zákazu zneužití práva je obecným pravidlem, které je však nutné aplikovat obezřetně vzhledem k okolnostem každého individuálního případu. Zneužití práva však nesmí být zneužíváno veřejnou správou k svévolnému odmítání poskytnutí informací požadovaných žadatelem. Za striktně vymezených podmínek lze v individuálních případech odmítnout poskytnutí požadovaných informací z důvodu zneužívání práva. Smyslem a účelem informačního zákona je zpřístupnění informací za účelem veřejné kontroly výkonu veřejné správy zejména v oblasti vynakládání veřejných prostředků a hospodaření s veřejným majetkem.

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PRÁVO NA INFORMACE O ŽIVOTNÍM PROSTŘEDÍ

RIGHT TO INFORMATION ON THE ENVIRONMENT

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Abstrakt

Tento článek se zabývá problematikou poskytování informací podle zákona č. 123/1998 Sb., o právu na informace o životním prostředí. Je popsán postup podávání a vyřizování žádosti o informace o životním prostředí. Dále jsou vymezeny povinné subjekty mající povinnost poskytnout informace. Rovněž je zmíněn postup žadatelů, jak se mohou proti postupu povinného subjektu bránit.

Klíčová slova: *právo na informace o životním prostředí, svobodný přístup k informacím, žádost o informace o životním prostředí*

Abstract

This article deals with the issue of providing information under Act No. 123/1998 Coll., on the right to access environmental information. The procedure for submitting and processing requests for environmental information is described. Furthermore, mandatory entities that are required to provide information are defined. It also mentions the procedure for applicants to defend themselves against the actions of the obligated entity.

Key words: *right to environmental information, free access to information, request for environmental information*

1 ÚVOD

Právo na přístup k informacím je zárukou zákonnosti a kontroly nad činností veřejné správy občany. Právo na svobodný přístup k informacím je v zákonné rovině v ČR upraveno zákonem č. 106/1999 Sb., o svobodném přístupu k informacím, v platném znění (dále jen „informační zákon“). Tento zákon se těší velké pozornosti široké veřejnosti, neboť jeho prostřednictvím se občané domáhají přístupu k různorodým informacím vznikajícím při činnosti veřejné správy.

V sedmdesátých a osmdesátých letech minulého století začaly vznikat aktivity v oblasti životního prostředí (např. Hnutí Brontosaurus) upozorňující na špatný stav životního prostředí. Začaly se objevovat snahy o získání informací z oblasti životního prostředí od státní správy. Až po sametové revoluci vzhledem k špatnému stavu životního prostředí v ČR se podařil začít prosazovat právo na informace o životním prostředí. Přístup k těmto informacím je důležitý pro kvalifikovanou veřejnou diskuzi o ochraně životního prostředí a předcházení škodám na lidském zdraví. Přesto se stále ve společnosti najdou jedinci popírající probíhající změny v životním prostředí. Na základě přístupu k informacím o životním prostředí mohou občané poznávat změny, ke kterým postupně dochází v oblasti životního prostředí a informovaně se rozhodovat o prosazování politik jeho ochrany.

Přístup k informacím o životním prostředí je v rovině zákona upraven zákonem č. 123/1998 Sb., o právu na informace o životním prostředí, v platném znění (dále jen „environmentální zákon“). Účelem informačního zákona je primárně poskytovat informace slouží ke kontrole občanů nad výkonem veřejné správy, na rozdíl od environmentálního zákona, jehož účelem je zpřístupnění žadatelům informací ke kontrole nad vývojem životního prostředí. V tomto případě žadatelé nevykonávají kontrolu nad činností veřejné správy, ale informace získávají s cílem ovlivnit veřejnou diskuzi v oblasti životního prostředí a prostřednictvím ní názory veřejnosti a vládní politiku v oblasti životního prostředí.

Z uvedeného je zřejmé, že ačkoliv by se mohlo zdát, že účelem obou zákonů je poskytovat informace žadatelům, oba zákony mají jinou cílovou skupinu poskytovaných informací. Jak dovodil Ústavní soud ve svém nálezu I. ÚS 3254/22[1] je právo na informace o životním prostředí podle čl. 35 odst. 2 specifické tím, že představuje záruku pro ochranu životního prostředí. Ústavní soud mimo informační hodnoty spatřuje v tomto ustanovení i hodnotu ochrannou. Životní považuje za základní hodnotu tvořící veřejný statek, jehož ochrana má být realizována za aktivní účasti všech složek občanské společnosti. Dále konstatoval, že právo na informace o životním prostředí zaručuje se specifickým cílem zajištění toho, aby současná generace i budoucí generace mohly žít v příznivém prostředí pro jejich zdraví. Rovněž konstatoval, že široký přístup k informacím o životním prostředí přispívá k větší osvětě v otázkách životního prostředí a k participaci veřejnosti na formování politik týkajících se životního prostředí.

2 PRÁVO NA INFORMACE O ŽIVOTNÍM PROSTŘEDÍ

Právo na informace o životním prostředí je upraveno jak na úrovni mezinárodního práva, tak i na úrovni práva EU. Na ústavní úrovni je garantováno právo na informace v čl. 17 v Listině základních práv a svobod (dále jen „Listina“), který je součástí ústavního pořádku ČR. V čl. 35 odst. 2 Listiny, který zaručuje každému právo na včasné a úplné informace o stavu životního prostředí a přírodních zdrojů. Toto právo tak zajišťuje, aby si každý mohl zajistit informace potřebné pro vytvoření názoru na stav životního prostředí a přírodních zdrojů. Tento názor (znalosti informací) pak může využít při veřejné diskuzi týkající se této problematiky nebo ke korekci názorů zaznívajících v souvislosti s touto diskuzí. Oblast životního prostředí a využívání přírodních zdrojů je předmětem rozsáhlých diskuzí, kde nesmiřitelně proti sobě stojí na jedné pomyslné straně zástupci ochránců životního prostředí a na druhé straně zástupci průmyslu a těžebních společností. V oblasti životního prostředí tak vzniká mnoho teorií, polopravd a dezinformací. Proto je důležité, aby měl každý přístup k datům o životním prostředí a přírodních zdrojích, aby si mohl sám často protichůdné názory korigovat a utvářet si svůj vlastní názor.

Právo na informace o stavu životního prostředí a přírodních zdrojů není podle Listiny přímo vykonatelným ústavním právem, neboť je řazeno pod hospodářská, sociální a kulturní práva, proto se těchto informací lze domáhat pouze v mezích prováděcích zákonů. Rozsah poskytovaných informací není v zákoně přesně vymezen. Lze se však domnívat, že pod pojem životní prostředí a přírodní zdroje lze zahrnout i informace o jednotlivých složkách životního prostředí a přírodních zdrojů. Ačkoliv to není výslovně stanoveno, tak pod tento pojem by se měly vejít jak přímo faktické informace týkající se životního prostředí a přírodních zdrojů, tak i informace o příčinách změn a důsledcích vývoje v této oblasti. V praxi však mohou vznikat spory, kde existuje hranice mezi rozsahem poskytovaných a neposkytovaných informací. Environmentální zákon je ve vztahu k jiným zvláštním právním předpisům upravujícím též poskytování informací o životním prostředí v postavení zákona obecného, což je patrné z ust. § 15 environmentálního zákona.

3 ŽÁDOST O INFORMACE O STAVU ŽIVOTNÍHO PROSTŘEDÍ A PŘÍRODNÍCH ZDROJŮ

Žádost o informace o stavu životního prostředí a přírodních zdrojů vychází z principu neformálnosti a nemusí být odůvodněná. Lze ji podat ústně, telefonicky, písemně na

[1] Nález Ústavního soudu ze dne 26.06.2024. sp. zn. I. ÚS 3254/22.

podatelně nebo poštou, elektronicky (na elektronickou adresu podatelny nebo prostřednictvím datové schránky) nebo jinou technicky proveditelnou formou. Žádost učiněnou prostřednictvím e-mailu lze v elektronické podobě zaslat i na jinou elektronickou adresu povinného subjektu, než je adresa elektronické podatelny. Pouze v případě nevyhovění žádosti (rozhodnutí o odepření zpřístupnění požadované informace) se postupuje podle správního řádu. Z žádosti musí být patrné, kdo ji podal. V případě podání anonymní žádosti může být zpřístupnění informace odepřeno, přičemž rozhodnutí o odepření se nevydává. Žádost nemusí být podepsána, proto ji lze podat i prostřednictvím e-mailu. Podle ust. § 3 environmentálního zákona žadatel nemusí nijak prokazovat svůj oprávněný zájem na zpřístupnění informací. Výjimku nezkoumání důvodnosti žádosti tvoří případy zneužití práva.
Za informaci o životním prostředí lze považovat jakákoliv informaci o stavu složek životního prostředí, o vzájemných vztazích mezi těmito složkami. Rovněž informace o faktorech ovlivňujících životní prostředí. Informace o činnostech nebo opatřeních ovlivňujících životní prostředí. Taktéž informace o lidském zdraví či podmínkách života lidí. Environmentální zákon v ust. § 2 písm. a) obsahuje demonstrativní výčet okruhů informací, o které lze žádat. Tyto okruhy jsou vymezeny poměrně široce. Na základě žádosti lze požadovat informace o životním prostředí týkající se např. stavu ovzduší, vody, půdy, využívání přírodních zdrojů. Dále o vlivu činností, staveb, technologií a výrobků na životní prostředí. Informace o plánovaných opatřeních, o stavu správních řízení ve věcech životního prostředí, o připravovaných nebo prováděných činnostech a opatřeních. Taktéž o stavu kulturních a architektonických památek pokud jsou nebo by mohly být ovlivněny stavem životního prostředí, o uzavíraných dohodách, které by mohly mít vliv na životní prostředí, o mezinárodních závazcích či ekonomických a finančních analýzách použitých v rozhodování ve věcech životního prostředí. Jedná se o demonstrativní výčet, proto rozsah poskytovaných informací může být širší, avšak vždy je nutné, aby byly podřaditelné pod pojem životní prostředí. Široká definice informací o životním prostředí však v praxi způsobuje problémy, protože někdy povinné subjekty odmítají požadované informace poskytnout, neboť dle jejich názoru se nejedná o informace o životním prostředí. Problematikou poskytování informací o životním prostředí se zabýval Městský soud v Praze, který v rozsudku 10 Ca 311/2007-28[2] dospěl k závěru pokud povinný subjekt dospěje, že požadovaná informace není informací o stavu životního prostředí, pak ji má poskytnout podle informačního zákona.
Povinným subjektem jsou ve smyslu ust. § 2 písm. b) environmentálního zákona, tj. správní úřady (orgány moci výkonné) a jiné organizační složky státu (ministerstva a jiné správní úřady státu, Ústavní soud, soudy, státní zastupitelství, Nejvyšší kontrolní úřad, Úřad vlády České republiky, Kancelář veřejného ochránce práv a jiná zařízení, o kterých to stanoví zvláštní právní předpis; dále orgány územních samosprávných celků). Postavení povinného subjektu mají profesní samosprávné komory zřízené zákonem, avšak pouze ve vztahu k výkonu veřejné správy a životnímu prostředí. Povinným subjektem jsou i veřejné instituce, které jsou právnickými osobami založenými, řízenými nebo pověřenými subjekty uvedenými v ust. § 2 písm. b) environmentálního zákona, případně i fyzické osoby pověřenými těmito subjekty na základě právních předpisů nebo na základě dohody s těmito subjekty. U právnických osob se může např. jednat o Český hydrometeorologický ústav nebo veřejné výzkumné instituce jako je Výzkumný ústav veterinárního lékařství a u fyzických osob o držitele autorizace v oblasti životního prostředí. Informační povinnost se u těchto subjektů vztahuje na informace o životním prostředí jež spravují. Informační povinnost se vztahuje i na subjekty, kterým zákon svěřil rozhodování o právech a povinnostech v oblasti veřejné správy, nebo na základě zvláštních předpisů vykonávají působnost ve vztahu k životnímu prostředí.

[2] Rozsudek Městského soudu v Praze ze dne 10.04.2010, č.j. 10 Ca 311/2007-28.

Jedná se například o subjekty jako jsou fyzické osoby v postavení lesní stráže. Problematika vymezení povinného subjektu je značně široká.
Zákon poměrně široce vymezuje okruh povinných subjektů. Přesto se mnohé povinné subjekty snaží informační povinnosti vyhnout a informace neposkytovat. Lze předpokládat, že stále budou existovat diskuze o tom, které konkrétní subjekty jsou či nejsou povinny informace o životním prostředí poskytovat. K výkladovým problémům dochází zejména u institucí, které jsou fyzickou nebo právnickou osobou vykonávající funkci správního orgánu s funkcí v oblasti veřejné správy. Příkladem může být rozsudek Nejvyššího správního soudu 5 As 47/2004-36[3], kdy dospěl k závěru, že podnik Povodí Vltavy, s.p. není povinným subjektem. O správnosti tohoto rozhodnutí by se dalo pochybovat. Ústavní soud v nálezu I. US 260/06[4] zkoumal, zda je státní podnik povinným subjektem ve smyslu informačního zákona, dospěl k závěru, že státní podnik lze podřadit pod pojem povinný subjekt podle informačního zákona. Na základě analogie by bylo možné dovozovat, že státní podnik by měl být povinným subjektem i podle environmentálního zákona. Okruh orgánů povinných poskytovat informace o životním prostředí však není neomezený. Za povinné orgány nelze považovat fyzické nebo právnické osoby, které nemají žádnou působnost v oblasti veřejné správy, nejsou pod přímou kontrolou veřejné správy nebo na základě pověření nebo smlouvy neprovádí některé práce s pověřením orgánů veřejné správy.
Ze žádosti musí být patrné, kdo ji podává (identifikace fyzické nebo právnické osoby. Dále musí být uvedeno, že se žadatel domáhá poskytnutí informací ve smyslu zákona č. 123/1998 Sb. Z žádosti musí být patrné, jaké informace jsou požadovány. Zde je vhodní dostatečně přesně specifikovat požadované informace. V případě nesrozumitelné nebo příliš obecně formulované žádosti bude žadateli povinným subjektem zaslána výzva k upřesnění žádosti. Požadavek je nutné upřesnit do 15 dní, jinak se má za to, že žadatel od své žádosti upustil. Z žádosti musí být patrné, kterému povinnému subjektu je žádost určena. Povinnost poskytovat informace se vztahuje pouze na informace objektivně existující, tj. informace nějakým způsobem zaznamenané (písemně nebo elektronicky). Neposkytují se informace, které povinný subjekt nemá k dispozici, informace, které dosud nebyly vytvořeny nebo ze žádosti není zřejmé, jaké informace jsou požadovány.
Požadovaná informace by měla být poskytnuta bez zbytečného odkladu, nejpozději však do 30 dnů od obdržení žádosti. V případě zvláštních okolností lze tuto lhůtu prodloužit až na 60 dnů. Pokud povinný subjekt ve stanovené lhůtě požadované informace neposkytne či nevydá rozhodnutí, má se za to, že rozhodl informace odepřít, na základě fikce rozhodnutí. Proti tomuto fiktivnímu rozhodnutí se pak žadatel musí bránit podáním odvolání či rozkladu podle správního řádu. Fiktivní rozhodnutí je však podle rozsudku 6 A 78/2002-39[5] Nejvyššího správního soudu nepřezkoumatelné pro nedostatek důvodů, proto musí být zrušeno. Věc je pak vrácena povinnému subjektu k dalšímu řízení. Podle ust. § 14 environmentálního zákona zakotvujícího informační příkaz, ukládá nadřízenému orgánu zkoumat, zda existuje zákonný důvod pro odepření informace. Pokud nadřízený orgán požadovaný zákonný důvod neshledá, pak rozhodnutí povinného subjektu zruší, řízení zastaví a rozhodnutím povinnému subjektu přikáže žadateli informace poskytnout. Pokud je však nečinný i odvolací orgán, pak je se obrátit s žalobou proti nečinnosti na správní soud, který povinnému subjektu uloží povinnost rozhodnutí vydat.
Poskytnutí informací může být odepřeno na základě vydaného rozhodnutí o odepření informace. Pokud žádosti byť i jen zčásti, nebude vyhověno, ve lhůtě 30 dnů (60 dnů v případě prodloužen lhůty) bude vydáno rozhodnutí o odepření zpřístupnění informace, popřípadě o odepření části žádosti (§ 9 zákona č. 123/19998 Sb.).

[3] Rozsudek Nejvyššího správního soudu ze dne 12.12.2005, č.j. 5 As 47/2004-36.
[4] Nález Ústavního soudu ze dne 24.01.2007, sp. zn. I. ÚS 260/06.
[5] Rozsudek Nejvyššího správního soudu ze dne 04.07.2003, č.j. 6 A 78/2002-39.

K odepření zpřístupnění informace dochází, pokud poskytnutí takových informací vylučuje zákon, např. z důvodu ochrany utajovaných skutečností, ochrany osobních údajů, ochrany osobnosti, chráněné osobní údaje, informace důvěrného rázu, informace podléhající ochraně duševního vlastnictví, ochrany obchodního nebo průmyslového tajemství, informace o průběhu soudního řízení, informace třetích strany, která je poskytla, aniž měla povinnost je poskytnout atp. Při uplatňování těchto výjimek je nutné je interpretovat restriktivně a provést test veřejného zájmu.
Povinnost poskytovat informace se netýká dotazů na názory povinného subjektu, jeho budoucí rozhodnutí a vytváření nových informací. Týká-li se žádost práv třetí osoby, budou této osobě poskytnuty text žádosti a základní identifikační údaje žadatele.
Environmentální zákon je postaven na zásadě publicity informací, proto odepřít poskytnutí informace je možné v těch případech, pokud by to odporovalo zákonu a na základě konkrétního zákonného důvodu. Důvody pro odepření poskytnutí informací jsou uvedeny v ust. §8 a § 8a, přičemž další důvody mohou být uvedeny ve zvláštních předpisech. Nezbytnost omezení poskytnutí informace je zkoumána prostřednictvím testu proporcionality ve smyslu nálezu Ústavního soudu Pl. ÚS 3/02[6], který poměřuje zájem žadatele na zveřejnění požadované informace (prospěšnost zveřejnění z hlediska veřejného zájmu, kterému zveřejnění slouží) s potřebou informaci chránit (zájmu, kterému slouží odmítnuté). V případě neposkytnutí informace by tento test měl být popsán ve vydaném rozhodnutí. To zabrání svévoli povinného subjektu a je nezbytnou součástí v případě soudního přezkoumání, neboť v rámci soudního řízení již povinný subjekt nemá možnost svou argumentaci upřesňovat nebo doplňovat. Důvodů pro odepření poskytnutí informací je celá řada, např. pokud se jedná o utajovanou informaci, ochrana obchodního tajemství atp.
Povinný subjekt je oprávněn v souvislosti se zpřístupněním informací žádat úhradu ve výši, která nesmí přesáhnout náklady spojené s pořízením kopií, opatřením technických nosičů dat a s odesláním informací žadateli. Možné je, že povinný subjekt bude požadovat i úhradu mimořádně rozsáhlého vyhledávání informací. Povinný subjekt v případě požadování úhrady tuto skutečnost spolu s výší úhrady před poskytnutím informace žadateli oznámí. Pokud nebude úhrada provedena do 60 dnů od jejího oznámené, povinný subjekt žádost odloží.
Proti rozhodnutí o odmítnutí žádosti o poskytnutí informace nebo její části a též proti rozhodnutí o odepření zpřístupnění informace nebo její části je možné podat rozklad. Rozklad se podává ministrovi životního prostředí prostřednictvím Ministerstva životního prostředí do 15 dnů ode dne doručení rozhodnutí. Na řízení o rozkladu se použijí ustanovení zákona č. 500/2004 Sb., správní řád, ve znění pozdějších předpisů, proto musí mít rozklad náležitosti stanovené v § 82 odst. 2 a § 37 odst. 2 ve spojení s § 152 tohoto zákona.
Povinné subjekty mohou zveřejňovat informace na základě individuální žádosti, tak i aktivním přístupem k informacím spočívajícím v zpřístupňování informací neomezenému okruhu subjektů bez nutnosti podat žádost. Povinné subjekty tak zveřejňují informace i bez žádosti. Vychází se z předpokladu, že čím větší rozsah informací zveřejní povinné subjekty na základě své iniciativy, tím menší objem individuálních žádostí pak budou muset vyřizovat. Environmentální zákon v ust. § 10a stanovuje povinnost pro povinné subjekty, aby v jejich působnosti vytvářely nezbytné podmínky pro aktivní zpřístupňování informací, vedly a aktualizovaly databáze vztahující se k jejich působnosti a tato data byla přístupná prostřednictvím prostředků umožňujících dálkový přístup jako otevřená data (případně prostřednictvím publikační činnosti). Zákon stanoví demonstrativní výčet informací, které mají povinné subjekty zpřístupňovat.

[6] Nález pléna Ústavního soudu ze dne 13.08.2002, sp. zn. Pl. ÚS 3/02.

4 ZÁVĚR

Zákon č. 123/1998 Sb., o právu na informace o životním prostředí je důležitým zákonem zajišťující přístup žadatelům k informacím o životním prostředí. Informací o životním prostředí se lze domáhat pouze v mezích prováděcích zákonů. Hlavním cílem tohoto zákona je zajistit občanům přístup k informacím o životním prostředí a jeho stavu. Tyto informace mají soužit k veřejné diskuzi o této problematice za účelem ovlivňování prosazovaných politik v této oblasti.

Změny v životním prostředí i klimatu jsou předmětem častých diskuzí, kdy údaje jsou interpretovány rozdílně až dezinformačně. Poskytování informací o životním prostředí má přispět k možnosti vytváření svobodného názoru občanů. Poskytování informací o životním prostředí se děje na základě neformální žádosti, jejím cílem je urychlení poskytnutí požadovaných informací. Stanovení povinného subjektu může být v některých případech, zejména při přenesení výkonu veřejné správy pro běžného laika obtížné. Tato problematika vymezení okruhu povinných subjektu je stále v právní úpravě problematická.

Poskytnutí informací o životním prostředí může být žadateli odepřeno pouze ze zákonem předvídaných důvodů. Odepření poskytnutí informací by mělo být řádně zdůvodněno, přičemž pro poměřování důvodů by měl být proveden test proporcionality. V případě odepření poskytnutí informací bez vydání rozhodnutí a za současné nečinnosti nadřízeného orgánu je žadatel nucen využít správního soudnictví. Nedostatkem současné právní úpravy environmentálního zákona je nedostupnost nebo neefektivita opravných prostředků. Bylo by vhodné v zákoně upravit procesní pravidla pro poskytování informací. V současní situaci záleží na libovůli povinného subjektu zda informace poskytne či nikoliv. Pokud povinný subjekt nechce informace poskytnout, pak jejich poskytnutí nemusí odepřít, ale stačí pokud zůstane nečinný. S jeho nečinností zákon spojuje fikci rozhodnutí o odepření žádosti. Nadřízený orgán nebo soud pak musí případně zrušit fiktivní rozhodnutí. Věc se vrátí zpět povinnému subjektu k dalšímu řízení, čímž se celý proces získávání informací prodlužuje. Tuto situaci by mohla vyřešit novelizace zákona. Právní úprava přístupu k informacím o životním prostředí trpí v České republice některými nedostatky, které by bylo vhodné napravit.

Povinné subjekty mohou informace o životním prostředí zveřejňovat samy, prostředky umožňujícími dálkový přístup nebo svojí publikační činností, čímž mohou předcházet vyřizování individuálních žádostí, Vzhledem k narůstajícímu významu informací o životním prostředí, změnám klimatu a nutnosti změny názorů veřejnosti na environmentální politiku státu je tento přístup velmi žádoucí. Vydávání informací a sumarizujících informací o životním prostředí by mělo být podporováno i ze strany veřejné správy.

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WHERE UNICORNS EMERGE AND WHO FUNDS THEM

Peter Moravec

Abstract

This study analyses the global distribution, valuation behaviour, and funding patterns of unicorn companies using valuation and financing data from Crunchbase. The analysis focuses on the relationship between post-money valuations and total equity raised, the geographic concentration of unicorn activity across regions and countries, and the influence of leading investors in shaping funding outcomes. The results indicate a strong clustering of companies around the one-billion-dollar valuation threshold, alongside clear regional imbalances in unicorn activity. These patterns are driven primarily by North America and Asia, further highlighting the uneven global distribution of high-growth, venture-backed firms.

Keywords: *unicorns, venture capital, valuation*

1 LITERATURE REVIEW

High growth start-up firms have become increasingly important in innovation and private investment. Within this group, unicorns form a unique category because they reach valuations of at least one billion United States dollars while remaining privately owned. The concept became widely recognised after its introduction in the work of Aileen Lee (Lee, 2013). Since then, the global number of such firms has risen rapidly, which has encouraged research on the environments that support their emergence and the investors who enable their expansion.

The global distribution of unicorns is uneven across regions. Evidence shows that most unicorns originate in a small number of advanced entrepreneurial ecosystems. One study reports large concentrations of high value start-ups in the United States (Florida and Hathaway, 2018). Another study identifies similar patterns in other major innovation centres, where capital, talent, institutions, and networks reinforce one another in ways that support rapid firm growth (Audretsch et al., 2019). These environments appear to provide the conditions that allow young companies to scale quickly and reach very high valuations.

Financing plays a central role in this process. Research demonstrates that venture capital has a strong influence on the formation and performance of young firms (Gompers and Lerner, 2001). Additional work shows that the availability of equity funding shapes innovation outcomes at both the firm level and the ecosystem level (Kerr, Nanda, and Rhodes Kropf, 2014). Other studies examine how investor behaviour affects valuation. One contribution shows that financial contracts influence governance and risk allocation in start-ups (Kaplan and Stromberg, 2001). Another finds that relationships among investors shape selection and support decisions within investment communities (Huang and Knight, 2017). More recent evidence shows that very large later stage funding rounds can have substantial effects on private market valuations (Gornall and Strebulaev, 2020).

This study uses the Crunchbase Unicorns dataset. These sources contain detailed information on valuation, total equity funding, investor groups, industry classifications, and geographic location. One study shows that Crunchbase offers broad and reliable coverage of high growth start-ups for empirical analysis (Ewens et al., 2018). Another demonstrates that Crunchbase is suitable for research on investor behaviour and decision making (Yu, 2019). Including both unicorns and emerging unicorns provides a view of the current landscape of high value firms and the pipeline of companies that are moving toward unicorn status.

The purpose of this paper is to examine where unicorns are created and which investors finance them. The analysis focuses on the geographic distribution of unicorns and emerging unicorns, the levels of equity funding they receive, and the composition of their investor base. The remainder of the paper presents the literature review, the methodology, the empirical results, and the conclusion.

2 LITERATURE REVIEW

Research on high value start up activity draws heavily from work on venture financing, investor behaviour, and regional innovation systems. A large part of the literature examines how access to equity financing supports firm creation and rapid growth. Early contributions show that venture capital plays a central role in funding young firms, providing both financial resources and active support for strategy and governance (Gompers and Lerner, 2001). Later work expands this view by demonstrating that the availability of equity funding strongly influences innovation outcomes and determines which projects receive backing within competitive markets (Kerr, Nanda, and Rhodes Kropf, 2014). These studies collectively highlight that financing is one of the most important factors behind the emergence of firms that later reach unicorn status.

Investor behaviour also shapes valuation dynamics and growth trajectories. Research on financial contracting illustrates how agreements between investors and start-ups allocate control rights and influence decision making at crucial moments in firm development (Kaplan and Stromberg, 2001). Work on investment networks finds that interpersonal and organisational relationships among investors affect the flow of information, the evaluation of opportunities, and the level of support provided to founders (Huang and Knight, 2017). More recent evidence shows that late-stage funding rounds, which can be very large in size, significantly affect the valuations of private firms and contribute to the appearance of unicorns in private markets (Gornall and Strebulaev, 2020). These findings underline the active role of investors in shaping both the growth and the valuation profile of high value firms.

A second major area of research focuses on the geographic distribution of start-ups and the characteristics of entrepreneurial ecosystems. Studies examining high growth firm concentration show that global start up activity is highly clustered and that the majority of very high value firms appear in a relatively small number of innovation centres (Florida and Hathaway, 2018). Additional research demonstrates that strong ecosystems develop when universities, firms, investors, and institutions interact in ways that facilitate knowledge exchange, resource sharing, and talent mobility (Audretsch et al., 2019). These environments provide conditions that make the creation of unicorn level firms more likely, which explains the uneven geographic distribution observed in global data.

The literature on unicorns specifically adds important context. The introduction of the term by Aileen Lee brought attention to the rapid rise of billion-dollar start-ups (Lee, 2013). Later work on the global growth of unicorns suggests that these firms reflect broader economic shifts, including the expansion of digital platforms, the increasing importance of intangible assets, and the growing involvement of large-scale investors in private markets (Kenney and Zysman, 2016). This work argues that unicorns should be understood both as individual firms and as indicators of structural trends in innovation and finance.

Empirical studies rely on data sources that track start up activity and investment behaviour. Crunchbase has become a widely used dataset in this field. Evidence shows that it provides broad and detailed coverage of young and high growth firms and is suitable for quantitative analysis of start-up formation, funding, and investor behaviour (Ewens et al., 2018). Other studies confirm that Crunchbase contains enough information to support research on investor decision making and late-stage financing patterns (Yu, 2019). These findings support the use of Crunchbase data in analyses of unicorn creation and the financing structures surrounding them.

Taken together, the literature indicates that the emergence of unicorns is shaped by multiple interacting forces. These include the availability of equity financing, the behaviour and networks of investors, structural conditions within regional ecosystems, and broader shifts in private capital markets. The present study builds on these insights by examining where unicorns and emerging unicorns are created and which investors support their development.

3 METHODOLOGY

This study examines the characteristics, funding dynamics, and investor participation patterns of unicorn companies using a structured quantitative approach. The analysis relies on a curated dataset of private companies valued at one billion US dollars or more and applies systematic data cleaning, transformation, and aggregation procedures to derive insights on valuation levels, funding intensity, and leading investor involvement.

The methodology is organized into two main components. First, the data source and scope are described to clarify the origin, structure, and limitations of the dataset used in the analysis. Second, the analytical approach outlines the data preparation steps, variable construction, and aggregation methods employed to support the empirical findings presented in subsequent sections.

a. Data source and scope

The analysis is based on the publicly available Unicorn Company List published by Crunchbase.[1] The dataset represents a snapshot of private companies valued at one billion US dollars or more based on valuations and funding information available at the end of 2024. As such it captures company valuations and cumulative equity funding only up to that point in time. Company valuations and funding activity continued to evolve significantly throughout 2025 and beyond. For example, OpenAI appears in the dataset with a post money valuation of approximately 80 billion US dollars reflecting its status at the end of 2024. At the time of writing however OpenAI is reported to have reached a post money valuation of roughly 500 billion US dollars following additional capital raises exceeding 40 billion US dollars in 2025 alone. These subsequent developments are not reflected in the dataset. This discrepancy highlights an inherent limitation of using static snapshot data for analysing highly dynamic private markets and is therefore acknowledged throughout the analysis.

The dataset presents 1549 unicorns and contains following firm level information. Country and region identify the geographic location of the company. Company name uniquely identifies each firm. Lead investors involved column lists the primary investors associated with each funding round. Post money value represents the latest reported valuation of the company after investment. Total equity funding captures the cumulative amount of equity capital raised by the firm over its lifetime. All monetary values were converted to numeric form and standardized to US dollars to enable comparison across firms.

In addition to the unicorn dataset, a supplementary sample of 392 emerging unicorn companies with post money valuations between 500 million and 1 billion US dollars was obtained from the same source (Crunchbase) and contains the same set of firm level attributes. Given the relatively small sample size and the absence of a well-established definition of emerging unicorns in the academic literature, this dataset is not used for the main analyses. It is employed only for comparative purposes when examining the relationship between total equity funding and post money valuation, serving as a benchmark against fully established unicorns.

[1] Crunchbase: https://news.crunchbase.com/unicorn-company-list/

b. Data preparation

Lead investor information is provided as comma separated strings in cases where multiple investors participated in a funding round. To identify leading investors consistently the lead investors field was split into individual investor entries. Each listed investor was treated as a lead investor for the corresponding company. This approach allows the analysis to capture investor activity and capital exposure rather than attempting to infer hierarchical importance among co investors. The split necessarily results in double counting of funding when multiple lead investors are associated with the same company. This is an intentional methodological choice. The objective is to measure investor prominence and exposure within the unicorn ecosystem rather than to construct accounting accurate capital totals.

Another step to clean data aimed to consolidate investor names to address naming inconsistencies and corporate structures. For example, references to Google and Alphabet were unified under Alphabet. Entries containing Sequoia were consolidated under Sequoia Capital. Mentions of SoftBank were unified under SoftBank. References to Alibaba and Ant were consolidated under Alibaba Holding. This cleaning step ensures that investor activity and funding aggregates are not artificially fragmented across multiple name variants. While other less prominent naming limitations may remain this process focuses on the most visible inconsistencies that would otherwise materially distort aggregate results.

c. Analytical approaches

The analysis proceeds in several stages to characterise the global unicorn landscape and to examine the relationship between valuation, funding, geography, and investor participation.

First, the distributions of post money valuation and total equity funding are examined using histogram plots on a logarithmic scale. The log transformation is applied to address the highly right skewed nature of valuation and funding data and to enable meaningful visual comparison across orders of magnitude. These distributions provide a baseline view of the concentration and dispersion of capital among unicorn companies.

Second, geographic patterns are analysed through aggregated counts at the regional and country levels. Company counts by region and by country are visualised using horizontal bar charts, allowing for a clear comparison of the relative concentration of unicorn companies across major economic areas. This step highlights regional imbalances in unicorn formation and the dominance of a small number of countries in the global ecosystem.

Third, investor activity is analysed by identifying leading investors based on two complementary metrics. The frequency with which an investor appears as a lead investor captures activity and prominence, while the aggregation of total equity funding attributed to each investor captures capital exposure and financial influence. Where multiple lead investors are listed for a single company, each investor is treated as a lead investor and receives full attribution of the associated funding. This approach intentionally allows for double counting and is consistent with an influence-based perspective rather than an accounting based one.

Fourth, the relationship between post money valuation and total equity funding is examined using a scatter plot with an overlaid linear regression line. The Spearman rank correlation coefficient is reported directly within the figure to assess the strength of the monotonic relationship between the two variables. This non-parametric measure is used in place of Pearson correlation to account for the relatively highly skewed distributions and the presence of extreme outliers in both variables, providing a more robust indication of association.

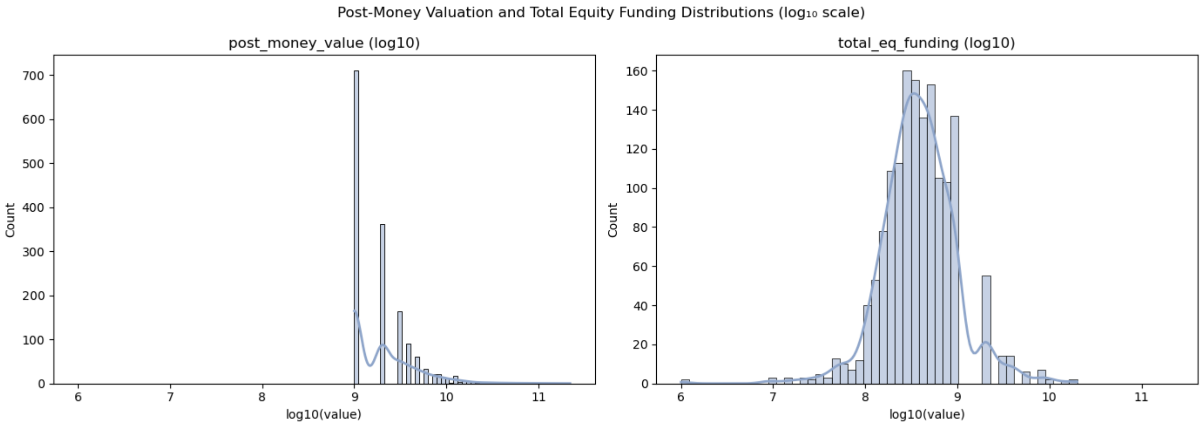
Finally, the analysis narrows its focus to Europe originated unicorn companies. For this subset, investor participation is examined by counting the frequency of lead investors and by aggregating total equity funding attributed to those investors. This regional focus enables a comparison between global investment patterns and those specific to the European unicorn

ecosystem, shedding light on the role of both domestic and international investors in supporting European high growth firms.
Together, these analytical steps provide a structured view of valuation dynamics, geographic concentration, and investor influence within the unicorn ecosystem, while maintaining transparency and interpretability throughout the analysis.

4 ANALYSIS RESULTS

This section presents the empirical findings derived from the unicorn dataset, focusing on valuation and funding distributions, geographic concentration, and investor activity. The analysis combines descriptive statistics and visual exploration to highlight structural patterns in post money valuations, total equity funding, regional and country level distributions, and the role of leading investors. Together, these results provide an integrated view of how capital and valuation are distributed across the global unicorn landscape at the end of 2024.
The distributions of post money valuation and total equity funding are examined using histogram plots on a base 10 logarithmic scale. In practical terms, the log10 scale corresponds to the number of trailing zeros in a value, thereby distinguishing whether capital amounts are measured in millions, tens of millions, or billions of US dollars. This transformation allows valuation and funding outcomes that span several orders of magnitude to be visualized within a common framework, facilitating meaningful comparison of concentration and dispersion across the unicorn population.

Figure 1: Valuation and total equity funding distributions (on a log10 scale)

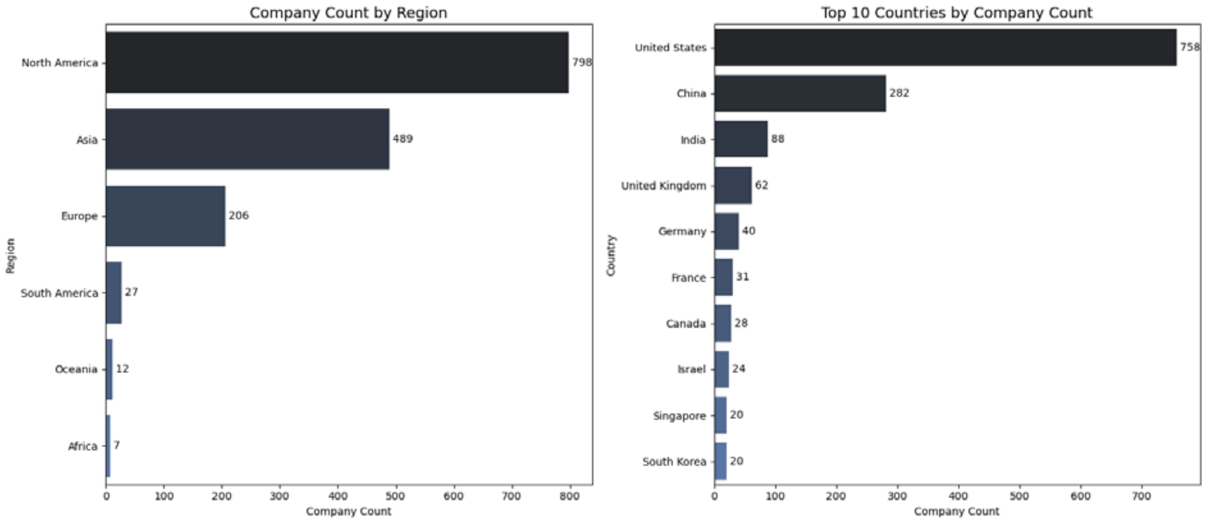


Source: Crunchbase and own computations

The logarithmic distributions indicate a pronounced concentration of unicorn post money valuations at approximately one billion US dollars, which corresponds to the minimum threshold for unicorn classification. Nearly half of the companies in the dataset cluster around this cutoff, reflecting the definitional boundary rather than organic dispersion. Beyond ten billion US dollars, valuations are dominated by a small number of high-end outliers, producing a long and heavy right tail. Post money valuations display substantially greater dispersion than total equity funding, suggesting that valuation growth increasingly decouples from cumulative capital raised among the most highly valued firms.
In contrast, total equity funding is most prevalent in the range between one hundred million and one billion US dollars, indicating a relatively narrow band in which most unicorns accumulate capital. A small subset of companies exhibits exceptionally low reported funding levels, in some cases just above one hundred thousand US dollars, implying that unicorn status can arise from limited capital inflows combined with highly leveraged or strategic ownership structures. At the upper extreme, funding totals approaching ten billion US dollars

are observed but remain rare, underscoring the exceptional nature of such capital concentration.

Figure 2: Geographic distribution of unicorn companies by region and country



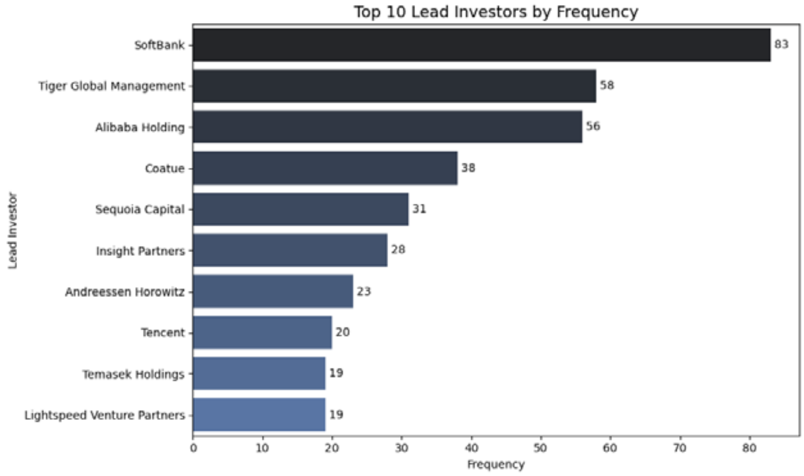
Source: Crunchbase and own computations

North America emerges as the dominant region in terms of unicorn company count, a position driven overwhelmingly by the United States, which alone accounts for the vast majority of regional representation. Canada contributes to this regional leadership to a lesser extent, reinforcing North America's overall dominance.

Asia follows as the second largest region, with unicorn activity more evenly distributed between major economies, primarily China and India, rather than being concentrated in a single country as observed in North America. Also, the lower end of the top ten is occupied by Asian economies such as Singapore and South Korea, which, while smaller in absolute counts, demonstrate a meaningful presence within the global unicorn landscape.

Europe forms the next tier, represented by a group of advanced economies including the United Kingdom, Germany, and France. Notably, Israel appears prominently among the top countries despite its relatively small geographic size, highlighting its outsized role in global unicorn formation.

Figure 3: The most active lead investors across unicorn companies

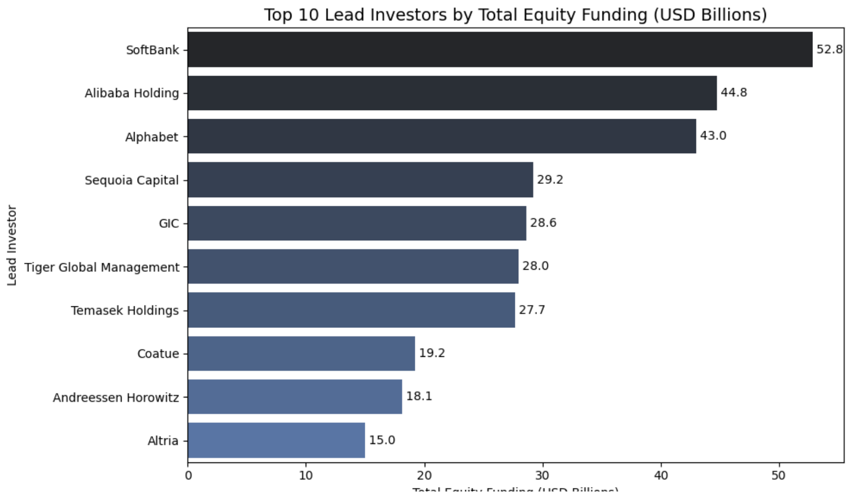


Source: Crunchbase and own computations

The distribution of lead investors by frequency highlights a strong concentration of unicorn financing activity among a small group of globally influential investment firms. SoftBank emerges as the most prominent lead investor by a substantial margin, reflecting its highly aggressive and large-scale investment strategy in late-stage private companies, particularly during the peak years of global venture capital expansion. Tiger Global Management and Alibaba Holding follow closely, underscoring the role of both global hedge fund style investors and large technology conglomerates in shaping unicorn growth trajectories.

A notable pattern is the geographic concentration of leading investors. The majority of high frequency lead investors originate from North America and East Asia, regions that also dominate unicorn company counts. United States based firms such as Tiger Global Management, Coatue, Sequoia Capital, Insight Partners, Andreessen Horowitz, and Lightspeed Venture Partners collectively account for a substantial share of lead investment activity, highlighting the continued centrality of the US venture capital ecosystem. At the same time, Asian investors including SoftBank, Alibaba Holding, Tencent, and Temasek Holdings play a comparably influential role, reflecting the scale and maturity of capital markets in Japan, China, and Singapore. From a geographic perspective, the results point to a globally concentrated investor landscape, where a small set of US and Asian institutions exert outsized influence over unicorn formation and capital allocation.

Figure 4: The leading investors by cumulative equity funding in unicorn companies

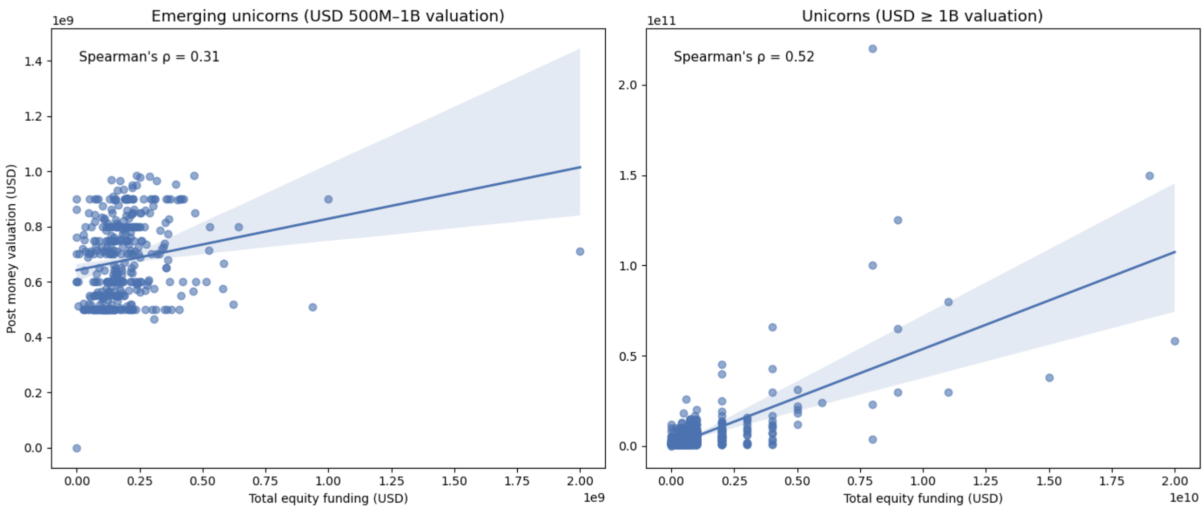


Source: Crunchbase and own computations

The ranking by total equity funding broadly aligns with the frequency-based investor activity presented previously, while also revealing important differences in capital concentration. SoftBank remains the dominant actor, leading both in deal frequency and in aggregate funding deployed, underscoring its outsized role in late-stage unicorn financing. Alibaba Holding and Alphabet rise prominently in total funding despite appearing less frequently as lead investors, indicating fewer but substantially larger investments. By contrast, investors such as Tiger Global Management, Sequoia Capital, and Andreessen Horowitz exhibit strong overlap between frequency and funding, reflecting a strategy cantered on repeated participation across multiple unicorns rather than a small number of exceptionally large bets. Overall, the comparison highlights a dual structure of the unicorn investment landscape, where some investors exert influence through broad deal coverage, while others shape outcomes through concentrated capital deployment.

Alphabet appears among the top lead investors by total equity funding primarily due to its role in several large-scale strategic investments rather than frequent participation across many unicorns. Most notably Alphabet is recorded as a lead investor in Reliance Jio, which accounts for roughly USD 20 billion in total funding. However, Alphabet direct capital contribution to Reliance Jio was substantially smaller at approximately USD 4.5 billion, with the remainder provided by other co investors. In addition, Alphabet total funding exposure is amplified by internally funded subsidiaries such as Waymo in autonomous driving and Verily in life sciences and healthcare. These companies were spun out as independent Alphabet entities during the 2015 corporate restructuring, yet continue to receive primary funding from Alphabet. As a result, Alphabet ranks highly in total equity funding despite appearing less prominently in frequency-based investor counts, highlighting the distinction between capital scale and deal activity.

Figure 5: Relationship between equity funding and valuation for emerging and established unicorns



Source: Crunchbase and own computations

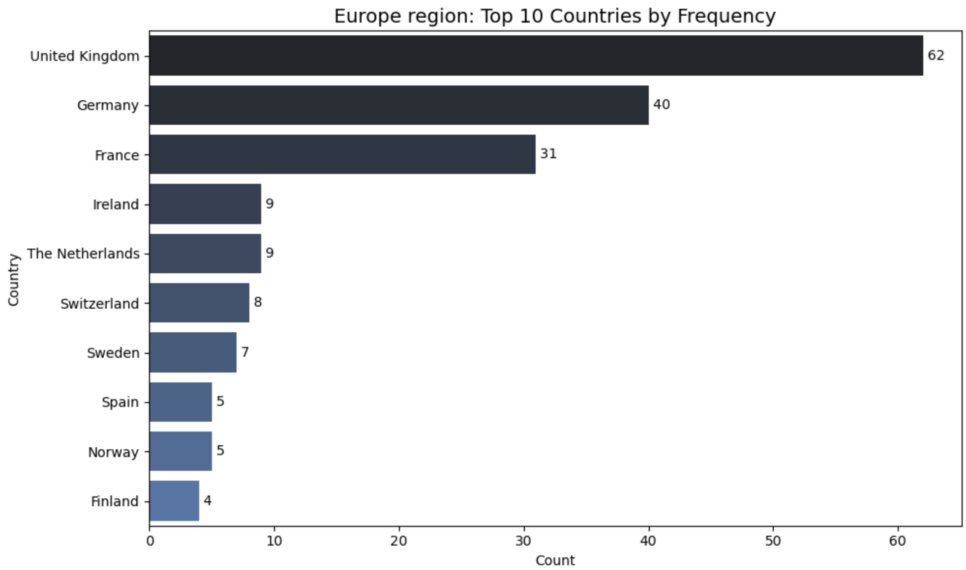
The scatter plots illustrate the relationship between total equity funding and post money valuation for two distinct groups: emerging unicorns valued between USD 500 million and USD 1 billion and established unicorns valued at USD 1 billion or above. This comparison is included to contrast firms at different stages of valuation maturity and to assess whether funding intensity translates into valuation in a similar manner across these groups.

For emerging unicorns, the relationship between funding and valuation is weak, as reflected by a low Spearman's ρ of 0.31. The weaker correlation observed among emerging unicorns may plausibly reflect several underlying mechanisms. One possibility is that equity acquisition structures at this stage are less consistent, with investors taking highly variable ownership stakes, resulting in divergent post money valuations for similar funding levels. Another contributing factor may be the deliberate restriction of the sample to companies valued between 500 million and 1 billion US dollars, which inherently limits observable variation and may reduce the strength of the measured relationship. Finally, survivorship effects may play a role, as emerging unicorns have not yet experienced the large, relatively proportional late-stage funding rounds typical of mature unicorns, leading to greater dispersion in the relationship between cumulative funding and valuation.

In contrast, established unicorns exhibit a markedly stronger positive relationship between total equity funding and post money valuation, with a Spearman correlation coefficient of 0.52. The right-hand panel shows a clearer linear trend, particularly among highly funded firms, indicating that at higher valuation levels cumulative capital deployment is more closely aligned with valuation outcomes. This pattern suggests that for mature unicorns, valuation growth is increasingly tied to sustained funding accumulation, reflecting more standardized investment structures and greater investor consensus regarding firm scale and growth potential.

Overall, the comparison highlights a structural shift in the funding valuation relationship as companies transition from emerging unicorn status to fully established unicorns, with funding becoming a more reliable predictor of valuation at higher levels of market maturity.

Figure 6: European unicorns by country of origin

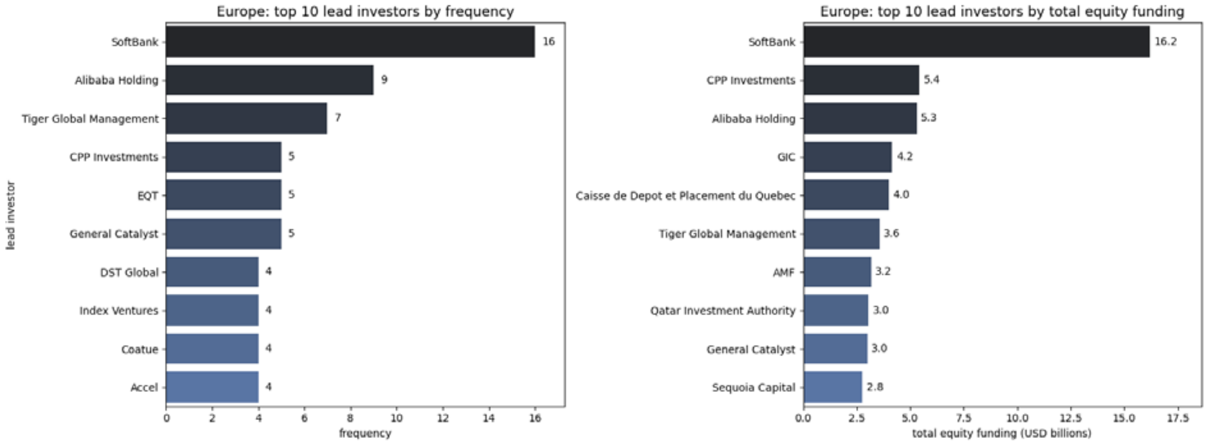


Source: Crunchbase and own computations

The chart shows a strong concentration of European unicorn companies in a small number of countries. The United Kingdom clearly dominates, accounting for by far the largest share of European unicorns, followed by Germany and France. Together, these three countries form the core of the European unicorn landscape. A second tier of countries including Ireland and the Netherlands appears with markedly lower counts, while Switzerland, Sweden, Spain, Norway, and Finland contribute smaller but notable numbers.

In summary, the distribution highlights a highly uneven geographic concentration of unicorn activity within Europe, with a few leading ecosystems and a long tail of smaller innovation hubs.

Figure 7: Lead investor activity and funding concentration in European unicorns



Source: Crunchbase and own computations

The two charts highlight a clear distinction between investor activity and capital concentration in European unicorn financing. By frequency, SoftBank emerges as the most active lead investor in Europe, followed by Alibaba Holding and Tiger Global Management. A group of well-known global venture capital firms such as CPP Investments EQT General Catalyst and DST Global appear repeatedly, indicating broad participation across multiple European unicorns rather than dominance by a single regional investor. When ranked by total equity funding, the picture shifts toward capital intensity. SoftBank remains the most influential investor in monetary terms, but large sovereign and institutional investors such as CPP Investments GIC and Caisse de Depot et Placement du Quebec rise in prominence. This contrast suggests that while some investors participate frequently with smaller or moderate allocations, a smaller set of global funds and state backed institutions account for a disproportionate share of total capital deployed in European unicorns. Broadly, the comparison shows that investor prominence in Europe is driven by both repeated participation and large-scale funding commitments, with relatively different actors dominating each dimension.

5 CONCLUSION

The analysis reveals several notable patterns in the global unicorn ecosystem. Valuations of unicorns are highly concentrated around the one billion US dollar threshold, with only a small subset of firms reaching substantially higher valuation levels. Total equity funding shows a narrower distribution. Furthermore, investor activity is geographically concentrated, with North America and Asia dominating both the number of unicorns and the scale of capital deployed, while Europe exhibits a smaller but recognizable set of countries with strong unicorn presence, such as United Kingdom, France, and Germany. The comparison between unicorns and emerging unicorns further highlights that valuation funding relationships strengthen significantly only after firms cross the unicorn threshold.

The study is subject to several limitations. The dataset represents a static snapshot of end of 2024 valuations and funding deals and does not capture subsequent developments, leading to the exclusion of more recent capital injections. Investor attribution relies on publicly reported lead investor information, which may mask underlying ownership structures and contribution sizes, particularly in multi-investor rounds. In addition, the analysis accepts double counting of funding when multiple lead investors are present, which inflates aggregate capital figures but preserves visibility into investor prominence. Finally, emerging unicorn analysis is constrained by valuation range selection, which mechanically limits observable correlation.

Future research could extend this work by round specific investment sizes that would allow for a more precise assessment of capital efficiency and investor influence. Further segmentation by industry, funding stage, or corporate venture participation could also provide deeper insight into structural differences within the unicorn population. Expanding the dataset beyond snapshot based lists to include continuous updates would improve robustness and allow for causal analysis of valuation growth trajectories.

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MATERIÁL, PROCES, MÉDIUM V KONTEXTOCH SÚČASNOSTI

MATERIAL, PROCESS, MEDIUM IN CONTEMPORARY CONTEXTS

Xénia Bergerová

Abstrakt

Príspevok rozvíja analýzu vzťahu materiálu, procesu a média v kontexte súčasného maliarstva najmä v stredoeurópskej a slovensko-českej praxi. Prostredníctvom štúdií slovenských autorov, ako napr. Zora Rusinová, Katarína Rusnáková, ďalej vo všeobecnej literatúre preberajúcej metodológiu, sa text sa zaoberá otázkou, ako materiál a proces formujú maľbu a ako redefinícia média rozširuje poetiku i sociálnu funkciu obrazu. Reaguje tiež na to, že hranica medzi maľbou a objektom, medzi plátnom, inštaláciou, či medzi statickým obrazom a multimediálnym dielom je stále viac fluidnejšia.

Klíčová slova: *materiál, proces, médium, súčasné maliarstvo, kurátorské kontexty*

Abstract

The paper develops an analysis of the relationship between material, process, and media in the context of contemporary painting, particularly in Central European and Slovak-Czech practice. Through studies of Slovak authors such as Zora Rusinová and Katarína Rusnáková, as well as general literature on methodology, the text addresses the question of how material and process shape painting and how the redefinition of media expands the poetics and social function of the image. It also responds to the fact that the boundary between painting and object, between canvas and installation, or between static image and multimedia work, is becoming increasingly fluid.

Key words: *material, process, medium, contemporary painting, curatorial contexts*

1 MATERIÁL AKO AKTÍVNY ČINITEĽ

V súčasnom maliarstve prestáva byť materiál vnímaný len ako neutrálna „podložka“ (plátno, papier a pod.), ale ako samostatný element, má fyzikálne, technologické a často i symbolické vlastnosti, ktoré výrazne ovplyvňujú výsledný význam diela (Bergerová, Ševčovič, 2025). Tento posun je artikulovaný vo viacerých odborných textoch venovaných stredoeurópskemu vizuálnemu umeniu. Teoretičky umenia jako napr. Katarína Rusnáková zdôrazňujú, že materiál sa stáva nositeľom sociálnych, environmentálnych či kultúrnych referencií a že je nevyhnutné pristupovať k nemu interdisciplinárne nielen kunsthistoricky, ale aj analyticky, technicky a kurátorsky. Podľa tohto prístupu materiál nie je pasívny, je skôr „partnerom“ tvorby, ktorý s autorom komunikuje, reaguje na techniku, zmeny času a kontextu, a tým spoluvytvára obraz ako udalosť (Rusnáková, 2019). V slovenskom kontexte je prístup materiálového dôrazu systematicky rozpracovaný napríklad v monografiách a katalógoch, ktoré kombinujú ikonografickú analýzu s podrobnou dokumentáciou pracovných postupov a materiálových vrstiev (napríklad v dielach komentovaných Zorou Rusinovou).

Samotné materiály, v našom kontexte výtvarné materiály, je dôležité spoznať a naučiť sa percipovať ich vlastnosti a to spôsobom manipulovania s nimi, a v neposlednom rade následne ich aj vedieť vhodne aplikovať v rámci výtvarnej tvorby, stvárnenia myšlienkových obsahov a formálnych vyjadrení (Biarincová, 2023, s.22, 23).

1.1 Maľba ako proces

„Maľba“ v tradičnom chápaní bola často vnímaná ako konečný, statický objekt, hotové dielo. Súčasné prístupy však stále častejšie vnímajú maľbu ako mnohovrstevný proces, v ktorom sa nachádzajú vrstvy rozhodnutí, experimentov, dorábok, prerábok, skíc, vrstvení, netradičných zásahov, performatívnych procedúr, a neraz aj akési medzistavy. To znamená, že obraz už nie je len výsledkom autorovho zámeru, ale i dokumentom tvorivého a materiálového konfliktu medzi ideou, technikou, materiálom a médiom. Takýto prístup podporuje potrebu interdisciplinárnej metodológie: kunsthistorickej reflexie, materiálovej analýzy, chemickej alebo technologickej expertízy, ale aj kurátorskej citlivosti vo vzťahu k prezentačnému dispositívu. Tento posun je opakovane pripomínaný v textoch venujúcich sa súčasnému vizuálnemu umeniu v našom stredoeurópskom regióne.

1.2 Médium a redefinícia hraníc maľby

Hranica medzi maľbou a objektom, medzi plátnom, inštaláciou, či medzi statickým obrazom a multimediálnym dielom je čoraz fluidnejšia. Autorky skúmajúce dejiny a súčasnosť vizuálneho umenia ako napr. Geržová (2012), či Rusnáková (2019) upozorňujú, že médium sa rozširuje: výstavné dispozície, kurátorské stratégie, digitálne reprodukcie, audiovizuálne vrstvy, performatívne či intervenčné prvky transformujú maľbu do širšieho vizuálneho a inštitucionálneho kontextu. Maľba sa stáva viac než len obrazom, stáva sa súčasťou komplexného komunikačného systému, v ktorom materiál, proces, médium a kontext sú nerozlučné. Čo však v zásade platí kontinuálne v celej histórii maľby, resp. vizuálneho umenia.

2 DVE KAZUISTIKY

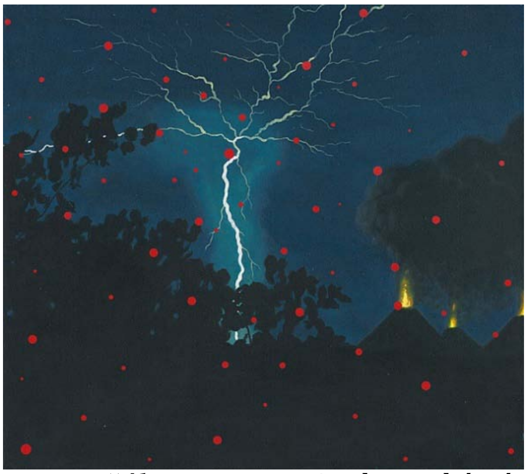
Na tomto mieste si dovolíme predložiť dva príklady autorských programov, a to tvorbu Vladimíra Popoviča a Bohdana Hostiňáka, kterým venuje svoju pozornost v monografických publikáciách teoretička umenia Zora Rusinová.

2.1 Vladimír Popovič - písmo, papier, gesto ako materiál a médium

Vo svojej monografii o umelcovi Vladimírovi Popovičovi autorka Zora Rusinová (2002) uvádza, že ak aj Popovič použil písmená ako výtvarne zaujímavé znaky, k ich estetickým kvalitám sa vždy ešte pridružil aj záujem o odovzdanie posolstva. To naznačuje, že pre Popoviča písmo či papier nebolo len formalistickým alebo dekoratívnym prvkom, ale integrálnou súčasťou výpovede, teda materiálom s významom. V jeho tvorbe sa stretávajú rôzne aspekty materiálového experimentu (papier, koláž, písmo, gestické vrstvenie) s procesom (konanie sa maľby, resp. objektu) a s médiom, ktoré prekračuje tradičnú maľbu smerom k objektu, inštalácii alebo akcii. Takýmto spôsobom Popovič ilustruje paradigmu, ktorú analyzujeme: materiál a médium sa stávajú nositeľmi významu a procesu, nielen prostriedkom ku konečnému obrazu, ale súčasťou samotnej identity diela.

1. obr. Vladimír Popovič – Loďky lodiek, 1964, Slovenská národná galéria

2.2 Bohdan Hostiňák - cykly, tematické opakovanie a materiálová prepracovanosť: V monografii Hostiňáka, opäť od autorky Zory Rusinovej (2005), sa uvádza, že Hostiňákové maľby sú organizované do tematických cyklov, pričom podľa Rusinovej autor cyklus rozvíja, pokým nevyčerpá jeho možnosti. V týchto cykloch sa často objavuje kombinácia realistického tvaroslovia s ornamentálnym, dekoratívnym znakom, a tiež variabilita materiálov a vizuálnych stratégií (povrchové textúry, vrstvenie, symbolické motívy). Hostiňákova práca tak kombinuje materialitu (formou výberu podkladu, farieb, vrstiev), proces (formou opakovaného prepracúvania tém, variovanie) a médium, ktoré hoci formálne ostáva malbou, nesie konceptuálne a estetické vrstvy, vyžadujúce interpretáciu cez kontext cyklu. Tento prístup potvrdzuje, že maľba nemusí byť jednorázová akcia, ale môže byť dlhodobým procesom reflexie, opakovania, prepracovania, jej metamorfóz. Materiál a médium sú v tomto prípade prostriedkami pre hĺbkový umelecký výskum.



2. obr. Bohdan Hostiňák - Noc I, 1998, Slovenská národná galéria

3 MATERIÁL, PROCES, MÉDIUM, KOMUNIKÁCIA

Materiál, proces a médium nie sú v súčasnom maliarstve oddeliteľné, tvoria prepojenú sieť, v ktorej materiál má svoju agenciu, proces zachytáva vývoj, a médium sa rozširuje cez kurátorské, technologické a sociálne kontexty. Prípady ako Vladimír Popovič alebo Bohdan Hostiňák ukazujú, že interpretácia maľby si vyžaduje viacúrovňový prístup, ktorý berie do úvahy materiálnosť, kontext a dlhodobú časovosť. Ak chceme seriózne študovať súčasné maliarstvo, musíme pristupovať ku dielu ako ku komplexnej entite. *V našej dobovej situácii by bolo zrejme zbytočné klásť otázku, či maľba má ešte akési práva, či nároky, považovať sa za univerzálne výtvarné médium, stále schopné byť dôležitým a funkčným komunikačným kanálom. Aby sme mohli hľadať potvrdzujúce skutočnosti, bolo by* *potrebné rozhodiť široko siete, skúmať a nekonečne porovnávať. Maliarstvo je nesporne jednou z dôležitých základní výtvarnej komunikácie, ktorá s a ozýva v rôznych sférach veľmi pravdivo a právoplatne* (Bergerová, 2025, s. 9). V súčasnosti vznikajú diela, ktoré prekračujú definované hranice média, keď autor pracuje s viacerými stratégiami a výsledok sa nachádza na hranici viacerých uměleckých typov (Ševčovič, 2023). Grafické médium, ktoré zohráva dôležitú úlohu vo vizuálnej kultúre, je prostriedkom na získanie estetického cítenia a orientácie v prostredí vizuálnej komunikácie a je nástrojom na tvorbu kvalitného vizuálneho obsahu (Ševčovič, Baštanová, 2024). Maľbu, resp. vizuálne umenie je možné považovať za stratégiu napĺňajúcu i katarznú a purifikačnú funkciu (Kováčová, 2021). Okrem jej materiálovej tváre je jej podstatou i komunikácia. Ako tvrdí Kováčová (2024) i Valachová (2024), vizuálna komunikácia je procesom, ktorý sprostredkuváva informácie, myšlienky a emócie prostredníctvom vizuálnych prvkov. Aby bola vizuálna komunikácia efektívna, mala by vykazovať jasnosť a funkciu vizuálneho posolstva. Vizuálny jazyk je akýmsi univerzálnym prostriedkom komunikácie (Biarincová, Biarinec, 2024). Informácie a poznanie sa podľa Valachovej nemusia zložito transformovať z racionálne skonštruovaných schém do živej a praktickej skúsenosti, sú totiž cez dielo v tejto podobe podávané okamžite, navyše sú podávané metaforicky a symbolicky (Valachová, 2025).

Afiliácia
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SÚČASNÁ SLOVENSKÁ KOMORNÁ TVORBA AKO NÁSTROJ INOVÁCIÍ VO VÝUČBE KOMORNEJ HRY NA ZUŠ

CONTEMPORARY SLOVAK CHAMBER MUSIC AS A TOOL FOR INNOVATION IN TEACHING CHAMBER MUSIC AT ELEMENTARY ART SCHOOLS

Jana Csámpaiová

Abstrakt

Štúdia sa zameriava na didaktický potenciál slovenskej komornej tvorby 21. storočia v edukácii na základných umeleckých školách. Skúma, do akej miery môžu komorné diela rozvíjať interpretačné, kognitívne a tvorivé kompetencie žiakov v kontexte súčasných pedagogických prístupov. Analýza vybraných skladieb Ľuda Kuruca a Jozefa Hudáka identifikuje štrukturálne, technické a expresívne prvky, ktoré ich predurčujú na efektívne využitie v komornej hre. Výsledkom je návrh metodických postupov, ktoré podporujú integráciu inovatívneho repertoáru do vyučovacieho procesu a stimulujú rozvoj hudobného myslenia žiakov prostredníctvom práce so súčasným hudobným obsahom.

Kľúčové slová: *komorná hra, súčasná slovenská hudba, ZUŠ, repertoár, metodika, hudobná pedagogika*

Abstract

The study focuses on the didactic potential of 21st-century Slovak chamber music in elementary arts education. It examines the extent to which newer chamber works can develop students' interpretive, cognitive, and creative competencies in the context of contemporary pedagogical approaches. An analysis of selected compositions by Ľudo Kuruc and Jozef Hudák identifies structural, technical, and expressive elements that make them suitable for effective use in chamber music performance. The result is a proposal for methodological procedures that support the integration of innovative repertoire into the teaching process and stimulate the development of students' musical thinking through work with contemporary musical content.

Key words: *chamber music, contemporary Slovak music, elementary art school, repertoire, methodology, music pedagogy*

1 ÚVOD

Komorná hra predstavuje v systéme umeleckého vzdelávania na základných umeleckých školách (ZUŠ) stabilizovanú a dlhodobo etablovanú interpretačnú disciplínu, ktorá plní nielen technicko-umelecké, ale aj významné socializačné a kognitívne funkcie. V pedagogickej literatúre je definovaná ako dynamický priestor intenzívnej hudobnej interakcie, kolektívnej súhry a zdieľaného hudobného rozhodovania (Westerlund, Gaunt, 2013). Súčasné výskumy zdôrazňujú, že komorné zoskupenia vytvárajú podmienky pre rozvoj tvorivosti, flexibilného hudobného myslenia a schopnosti reagovať na interpretáciu v reálnom čase (Lehmann, Sloboda, Woody, 2007). Tieto procesy majú výrazný sociálny a estetický rozmer, ktorý presahuje rámec tradičného poňatia interpretačnej disciplíny. Približujú sa širšiemu chápaniu hudobného konania ako participatívnej praxe (Small, 1998).

Súčasná pedagogická paradigma ZUŠ poukazuje na potrebu rekonfigurácie dlhodobo prevládajúceho modelu komornej hry, ktorého kurikulárna a interpretačná prax sa opiera predovšetkým o diela klasicko-romantického kánonu. Rozvoj pluralitného a štýlovo otvoreného repertoáru sa v súčasnosti považuje za nevyhnutnú súčasť vzdelávania, pretože podporuje estetickú flexibilitu žiakov a reflektuje aktuálnu hudobnú realitu (Burnard, 2012; Elliott, Silverman, 2015). Napriek tomu je komorná tvorba slovenských skladateľov 21. Storočia v praxi stále využívaná len okrajovo, hoci jej rytmická, zvuková a texturálna variabilita ponúka výrazný potenciál pre modernizáciu výučby.
Cieľom štúdie je analyzovať možnosti systematického a pedagogicky adekvátneho začleňovania slovenskej komornej tvorby 21. storočia do vzdelávacieho procesu. Východiskom sú etablované teoreticko-historické a pedagogicko-metodické prístupy (Elliott, Silverman, 2015), ktoré sú následne aplikované na komornú tvorbu súčasných slovenských skladateľov s dôrazom na jej didaktickú hodnotu, technické nároky a interpretačný potenciál. Text poskytuje syntetizujúci prehľad o komorných dielach vhodných pre edukačné prostredie ZUŠ a formuluje metodické odporúčania, ktoré môžu podporiť inovatívne prístupy a reflektovať aktuálne potreby hudobného vzdelávania.

2 POJMOVÉ A FUNKČNÉ UKOTVENIE KOMORNEJ HRY

Komorná hudba je v odbornej literatúre definovaná ako esteticko-umelecký žáner založený na princípe partovej autonómie, v ktorom každý hlas nesie vlastnú výrazovú a formotvornú funkciu (Taruskin, 2005). Predstavuje prostredie intenzívnej hudobnej spolupráce, pretože vznik hudobného významu je podmienený kolektívnym dialógom interpretov. Tento proces zahŕňa vzájomné počúvanie, okamžitú reakciu a spoločné interpretatívne rozhodovanie, čo nadväzuje na teórie zážitkového a kooperatívneho učenia (Small, 1998; Westerlund, Gaunt, 2013).
V psychologických a pedagogických výskumoch (Lehmann, Sloboda, Woody, 2007; McPherson, Parncutt, 2016) je komorná hra opisovaná ako disciplína, ktorá integruje viacero dimenzií hudobného výkonu. Medzi kľúčové kognitívne procesy patria najmä analytické myslenie, anticipácia hudobného vývoja a práca so štruktúrou. Nemenej významnú úlohu zohrávajú percepčno-motorické mechanizmy, predovšetkým koordinácia, technická presnosť a ansámblová súhra. Tieto zložky sa prelínajú s emocionálnymi a interpersonálnymi aspektmi vrátane empatie a výrazovej adaptability, čo z komornej hry robí mimoriadne účinný nástroj umeleckého vzdelávania.
V pedagogickej literatúre sa funkcie komornej hry najčastejšie klasifikujú ako umelecké, sociálne a interpretačné (Hopkins, 2018). Umelecká funkcia súvisí s prehlbovaním porozumenia hudobnej štruktúry a rozvojom estetickej senzitivity. Sociálna dimenzia posilňuje interakciu, komunikáciu, zodpovednosť a schopnosť spolupracovať. Interpretačná rovina predpokladá koordináciu medzi hráčmi, kontrolu zvukovej vyváženosti a dodržiavanie štýlovej adekvátnosti. Tieto tri oblasti vytvárajú rámec, ktorý umožňuje presnejšie pochopiť pedagogický potenciál súčasného komorného repertoáru. Aplikácia moderných kompozičných prístupov v kontexte komornej hry podporuje rozvoj technických zručností, estetickej senzitivity, tímovej spolupráce a tvorivého hudobného myslenia.
V ďalšej časti štúdie sa preto pozornosť sústreďuje na repertoár pre sláčikový komorný súbor, ktorý predstavuje optimálne prostredie pre integráciu súčasnej slovenskej tvorby do výučby na ZUŠ.

3 KOMORNÁ HRA V KURIKULÁRNOM A PEDAGOGICKOM KONTEXTE ZUŠ

Komorná hudba má v európskej tradícii stabilnú pozíciu ako priestor pre interakciu, spoluprácu a formovanie hudobného myslenia (Whittall, 1996; Taruskin, 2005). Jej pedagogické funkcie estetická, sociálna a interpretačná sú v odbornej literatúre dlhodobo zdôrazňované a tvoria základ práce so žiackymi komornými súbormi (Lehmann, Sloboda, Woody, 2007). Na tieto princípy nadväzuje aj potreba rozšíriť repertoár o súčasnú slovenskú tvorbu, ktorá môže ponúknuť nové podnety pre rozvoj interpretačných zručností v prostredí ZUŠ.

Kurikulárne dokumenty slovenského umeleckého školstva koncipujú predmet komornej hry ako integrálnu súčasť komplexného rozvoja interpretačných, sociálnych a kooperatívnych kompetencií žiakov. Štátny vzdelávací program pre ZUŠ (ŠPÚ, 2015) explicitne akcentuje rozvíjanie intonačnej istoty, rytmickej koordinácie, schopnosti participácie na kolektívnej interpretácii a koncepčného hudobného myslenia v ansámblovom kontexte. Napriek tomu ako uvádza pedagogicko-kurikulárna literatúra (Westerlund, 2008) metodické rámce predmetu ostávajú prevažne všeobecné a neobsahujú systematické kritériá pre výber notového materiálu.

Analýza slovenského kurikulárneho rámca naznačuje viacero oblastí, ktoré si v budúcnosti vyžadujú systematickejšie rozpracovanie. Patrí k nim najmä potreba jasnejšie formulovaných odporúčaní pre výber súčasných komorných diel, ktoré by primerane reagovali na aktuálne estetické tendencie a cieľavedome podporovali tvorivé kompetencie žiakov. V praxi žiackych ansámblov často dominujú historické skladby, čo prirodzene zužuje štýlovú diverzitu využívanej literatúry. Prevažujúce tradičné kompozičné štruktúry obmedzujú príležitosti zoznamovať sa so zvukovými, rytmickými a texturálnymi charakteristikami hudby 20. a 21. storočia.

Identifikované limity nie sú v úplnom súlade s modernými pedagogickými paradigmatmi, ktoré zdôrazňujú význam kolaboratívneho učenia, recipročnej interakcie a rozvoja kognitívno-reflexívnych procesov (Vygotskij, 1978; Westerlund, Gaunt, 2013). Táto diskrepancia poukazuje na potrebu rozšíriť používanú komornú literatúru o súčasnú slovenskú tvorbu, ktorá môže vhodne dopĺňať existujúce pedagogické postupy a obohacovať ansámblovú prax na ZUŠ. Komorná hra, vďaka svojej dialogickej, intersubjektívnej a kooperatívnej povahe, predstavuje optimálne prostredie na aplikáciu súčasnej tvorby, a to najmä v rámci sláčikových komorných súborov, ktoré tvoria stabilnú súčasť ansámblovej praxe na ZUŠ.

4 SÚČASNÁ SLOVENSKÁ KOMORNÁ TVORBA A JEJ PEDAGOGICKÝ PRÍNOS

Ako vyplýva z hudobnopedagogických a muzikologických štúdií (Small, 1998; Lehmann, Sloboda, Woody, 2007; Westerlund, 2008), učenie prostredníctvom komornej hudby má integračný, reflexívny a participatívny charakter, čo umožňuje efektívne využitie súčasného repertoáru v procese kooperatívneho a skúsenostného učenia. Súčasná slovenská komorná tvorba predstavuje z pedagogického hľadiska mimoriadne hodnotný repertoárový zdroj, ktorý dokáže rozvíjať technické, auditívne, interpretačné aj sociálne kompetencie žiakov v kontexte moderných edukačných trendov. Vyznačuje sa výraznou rytmickou a zvukovou invenciou, ktorá vhodne dopĺňa tradičný repertoár využívaný v prostredí ZUŠ. Charakteristické črty týchto diel zahŕňajú rytmickú variabilitu, prácu s polymetriou a synkopáciou, využívanie nepravidelných rytmických útvarov či tvorbu farebných zvukových textúr. Popri tom sa v nich uplatňuje kombinácia tradičných a moderných hráčskych techník vrátane pizzicata, col legna alebo sul ponticella[1].

Takéto výrazové a technické postupy podporujú viaceré oblasti hudobného rozvoja žiakov. Rytmická invencia umožňuje precvičovať stabilitu tempa a súhru v rámci viacvrstvových rytmických štruktúr. Tonálno-modalné postupy súčasnej tvorby prispievajú k jemnejšiemu

[1] Pizzicato – brnkanie na struny prstami; *col legno* – hra drevom sláčika; *sul ponticello* – hra v blízkosti kobylky so špecifickým, ostrejším zvukom.

vnímaniu intonácie, zatiaľ čo rôznorodé zvukové techniky rozvíjajú kultivované počúvanie farby tónu a prácu s textúrou v rámci súboru. Moderné výrazové prvky zároveň zvyšujú interpretačnú flexibilitu žiakov, ktorú hudobnopedagogická literatúra (Pazdera, 2008; Hopkins, 2018) označuje za kľúčovú pre komplexný umelecký rast mladých interpretov.
V tomto zmysle poskytuje súčasná slovenská komorná tvorba prirodzené prostredie pre komplexný technicko-estetický rozvoj žiakov, ktorý tradičný historický repertoár zvyčajne nedokáže zabezpečiť v rovnakej šírke a rozmanitosti.
Z kognitívneho hľadiska nadväzuje komorná hra so súčasným repertoárom na koncept *musicking* (Small, 1998), podľa ktorého je hudobná činnosť predovšetkým sociálnym aktom. Hudobný význam sa v tomto modeli nevníma ako statická vlastnosť diela, ale ako výsledok interakcie medzi hráčmi počas samotného interpretačného procesu. Výskumy hudobnej psychológie (Lehmann, Sloboda, Woody, 2007) zároveň ukazujú, že interpretačný výkon predstavuje integráciu motorických, kognitívnych a emocionálnych aspektov, pričom komorná hra túto integráciu ešte zosilňuje vďaka neustálej potrebe koordinovať individuálny výkon so spoluhráčmi.
Súčasná slovenská komorná tvorba v pedagogickom prostredí prirodzene podporuje proces kolektívnej konštrukcie hudobného významu, keďže jej výrazové a formové postupy (motivická fragmentácia či texturálne kontrasty) si vyžadujú aktívnu interpretatívnu diskusiu v rámci súboru. Moderné rytmické a formové vrstvenie zároveň rozvíja anticipáciu, samoreguláciu a schopnosť pružne reagovať na zmeny, ktoré sú pre súčasnú hudbu charakteristické. Práca so zvukovým materiálom, ktorý často presahuje tradičné výrazové modely, stimuluje kreativitu a hudobnú imagináciu žiakov.
Všetky tieto aspekty podporujú aj sociálne dimenzie komornej hry, predovšetkým empatické počúvanie, interakčnú citlivosť a zodpovednosť za kolektívny výsledok. Z pedagogického hľadiska ide o prvky situovaného sociálneho učenia, ktoré komorná hra umožňuje rozvíjať prirodzene. Predstavujú kľúčový princíp súčasných koncepcií hudobného vzdelávania (Westerlund, Gaunt, 2013).

5 REPERTOÁROVÁ MEDZERA A VÝZNAM SLOVENSKEJ TVORBY

Analýza repertoáru používaného v predmete *Komorná hra* na ZUŠ poukazuje na jeho výraznú nevyváženosť. Dominuje klasicisticko-romantický repertoár, zatiaľ čo súčasná slovenská hudba je zastúpená iba okrajovo, nesystematicky a bez metodickej gradácie. Tento stav dokumentuje aj výskum (Csámpaiová 2025), ktorý upozorňuje na obmedzenú štýlovú diverzitu, absenciu moderných autorov a nedostatok repertoárových odporúčaní pre prácu so súčasnými dielami.
Práve z tohto dôvodu predstavujú diela slovenských autorov, ako sú Ľudo Kuruc a Jozef Hudák, mimoriadne vhodný materiál pre pedagogickú prax. Ich komorná tvorba spája moderné prvky s didaktickou primeranosťou, ponúka jasnú formovú architektúru, prístupnú zvukovosť. Vytvára priestor pre rozvoj tvorivej interpretácie, ktorú hudobná pedagogika 21. storočia považuje za zásadnú.
Tvorba Ľuda Kuruca a Jozefa Hudáka umožňuje žiakom vstupovať do sveta súčasnej hudby prirodzeným a pedagogicky primeraným spôsobom. Ich komorné skladby nie sú technicky preťažujúce, čo výrazne uľahčuje ich zaradenie do repertoáru na nižších a stredných úrovniach štúdia. Zároveň rešpektujú vývinové možnosti žiakov. Pracujú s jasnou formou, čitateľnou motivikou a zvukovými prvkami, ktoré sú netradičné, no stále uchopiteľné pre mladého interpreta. Vďaka tomu podporujú estetickú otvorenosť a napomáhajú rozvoju moderného hudobného myslenia, založeného na schopnosti reagovať na inovatívne zvukové podnety, pracovať s netradičnými farbami tónu a chápať hudbu v širšom kontexte. Ich diela vypĺňajú výraznú medzeru v repertoárovej gradácii predmetu *Komorná hra* na ZUŠ, kde

chýbajú kompozične kvalitné, moderné a pedagógom dostupné skladby primeranej náročnosti.

Ľudo Kuruc vytvoril cyklus *Piesne stromov*, ktorý obsahuje viacero didakticky cenných komorných skladieb vhodných pre rôzne úrovne žiakov. Medzi reprezentatívne ukážky patria kompozície *Smutná vŕba a Stará jelša*, ktoré kombinujú moderné prvky s pedagogickou primeranosťou. *Smutná vŕba* pracuje s jasne členenou frázovou výstavbou a striedaním arco/pizzicato techník v sláčikoch (napr. takty 1–13) čo uľahčuje rozvoj koordinácie a zvukovej rovnováhy ansámblu. *Stará jelša* sa vyznačuje melodickou čitateľnosťou, jemnou dynamickou gradáciou a transparentnou textúrou (napr. takty 1–8; 17–26), ktoré podporujú prácu s frázovaním, artikulačnou jemnosťou a zvukovou vyváženosťou.

Rovnako významným prínosom je aj tvorba Jozefa Hudáka, reprezentovaná kompozíciou *Sushi alebo Halušky*. Dielo je založené na výraznej rytmickej motorike, ostinátnych patternoch a systematickej forme členenia na úseky A–F. Rytmické ostináta v kontrabase a bicích (najmä takty 26–33) slúžia ako ideálny materiál pre rozvoj pulzačnej stability a súhry. Striedanie pizzicato a arco v sláčikových nástrojoch (viola takt. 5–7; violončelo takt. 6–13) umožňuje pedagogicky efektívnu prácu na zvukovej flexibilite. Melodické línie v sekciách B a C vo viole a husliach (napr. husle I: takty 17–24) poskytujú priestor pre rozvoj frázovania a intonačnej istoty. Klavírny part (takt. 6–13; 21–30) podporuje koordináciu rúk a dynamickú prácu v ansámblovom kontexte.

Hudákov štýl možno reprezentatívne ilustrovať aj dielom *Starý gramofón*, ktoré patrí medzi jeho najčastejšie interpretované kompozície v pedagogickej praxi. Skladba je charakteristická jasnou melodickou líniou a tanečnou pulzáciou, ktorá vytvára prirodzený interpretačný ťah a okamžitú žiacku atraktivitu. Hudák v diele kombinuje pravidelný metrický rámec s drobnými rytmickými posunmi a synkopami, čím vzniká pulzujúca, mierne „retro" štylizácia pripomínajúca estetiku skorých gramofónových nahrávok. Formálne pracuje s krátkymi motivickými útvarmi založenými na postupoch a repetíciách, vďaka čomu dielo pôsobí koherentne a dobre sa učí. Typické sú i kontrasty medzi lyrickejšími pasážami a rytmicky akcentovanými úsekmi, ktoré podporujú prácu s artikuláciou, dynamikou a frázovaním. Skladba tak rozvíja presnú rytmickú koordináciu, cit pre štýlový charakter a schopnosť vytvárať výrazové napätie prostredníctvom krátkych motívov.

Zaradenie *Starého gramofónu* prirodzene nadväzuje na Hudákovu estetickú líniu a dopĺňa jeho tvorbu o žánrovo prístupnejší, no kompozične premyslený model, ktorý výrazne obohacuje ponuku súčasného slovenského repertoáru vhodného pre ZUŠ. V kombinácii s Kurucovým cyklom Piesne stromov, ktorý reprezentujú skladby *Smutná vŕba* a *Stará jelša*, vzniká ucelená paleta pedagogicky vhodného repertoáru. Kým Kurucova tvorba prináša lyrickú, texturálne priezračnú a zvukovo jemnú polohu súčasného hudobného jazyka, Hudákove diela ponúkajú rytmicky pulzujúci, motivicky výrazný a žiakom okamžite dostupný hudobný materiál. Obe tvorivé línie sa tak navzájom dopĺňajú a spoločne vypĺňajú dôležitú repertoárovú medzeru v predmete *Komorná hra* na ZUŠ.

5.1 Pedagogická aplikácia

Implementácia diel Ľuda Kuruca a Jozefa Hudáka do výučby komornej hry vytvára priestor pre viacúrovňový pedagogický proces, ktorý reflektuje moderné prístupy k hudobnému učeniu. Práca s týmito skladbami umožňuje nadviazať na analytické a percepčné schopnosti žiakov prostredníctvom podrobného skúmania zvukových plôch, farebnosti tónu, texturálnych vrstiev a dynamických kontrastov.

Interpretácia diel zároveň prirodzene podporuje rozvoj ansámblovej komunikácie. Pedagóg môže využívať techniky, ako je *dirigovanie zvnútra súboru*[2], ktoré podnecuje citlivosť na

[2] *Dirigovanie zvnútra súboru*" označuje spôsob vedenia ansámblu bez externého dirigenta, pri ktorom riadiacu funkciu preberá jeden z hráčov (najčastejšie koncertný majster alebo iný vedúci hlas). Prostredníctvom

gestiku spoluhráčov, schopnosť reagovať v reálnom čase a aktívne prispieť k spoločnej hudobnej koncepcii. Tieto procesy rozvíjajú nielen synchronizáciu pohybu a zvuku, ale aj intersubjektívne porozumenie, ktoré je jadrom komornej praxe.
Súčasná slovenská komorná tvorba taktiež vytvára vhodné podmienky pre prácu s detailnou dynamikou a zvukovou modeláciou. Žiaci sú vedení k tomu, aby premýšľali o zvuku ako o plastickej, formovateľnej kvalite, ktorú je možné vedome tvarovať. Práca s modernými prvkami navyše podporuje tvorivú reflexiu a iniciatívu žiakov, čím dochádza k rozvoju ich kolektívnej zodpovednosti za výslednú interpretáciu.
Diela Kuruca a Hudáka sa stávajú praktickým nástrojom modernizácie výučby komornej hry: umožňujú kombinovať tradičné disciplíny (intonáciu, rytmus, súhru) s prvkami kreatívnej interpretácie. Poskytujú pedagógovi spoľahlivý repertoárový materiál, ktorý zodpovedá požiadavkám aktuálnej hudobnej pedagogiky.

5.2 Metodické odporúčania pre implementáciu súčasnej tvorby

V nadväznosti na odborné odporúčania z oblasti pedagogického výberu repertoáru pre žiacke komorné súbory (Pazdera, 2008; Hopkins, 2018; Lehmann, Sloboda, Woody, 2007) možno definovať súbor kritérií, ktoré umožňujú efektívne a didakticky primerané zaradenie súčasnej slovenskej komornej tvorby do výučby. Kľúčovým predpokladom je primeraná technická náročnosť. Skladba by mala rešpektovať vývinové možnosti žiakov, poskytovať im priestor na zvládnutie základných komorných zručností a zároveň ich motivovať k objavovaniu rôznorodej zvukovosti. Rovnakú dôležitosť má aj jasná, prehľadná textúra, ktorá uľahčuje orientáciu v hudobnom materiáli a podporuje koordináciu v rámci ansámblu.
Z pedagogického hľadiska sa ako najefektívnejšie javí, ak skladba obsahuje jeden dominantný prvok novšej hudobnej tvorby (napríklad špecifickú zvukovú farebnosť, rytmický model alebo modalitu), ktorý môže byť predmetom hlbšej didaktickej analýzy a pedagogického rozpracovania. Výber repertoáru by mal zároveň prihliadať na adaptovateľnosť skladby pre rôzne obsadenia, čo je dôležité najmä na ZUŠ, kde sú personálne a nástrojové podmienky premenlivé. Nevyhnutnosťou je dostupnosť nôt a prípadne aj nahrávok, ktoré zjednodušujú proces prípravy, analýzy a interpretačnej reflexie. Takto koncipované kritériá umožňujú pedagógovi vybrať taký repertoár súčasnej slovenskej hudby, ktorý je didakticky nosný, esteticky hodnotný a organicky zapadá do celkovej štruktúry komornej výučby.
Efektívna implementácia diel súčasnej slovenskej komornej tvorby si vyžaduje metodický prístup, ktorý kombinuje analytické, percepčné a tvorivé stratégie učenia. Východiskom je počúvanie a dekódovanie zvukových plôch, pri ktorom sa žiaci učia identifikovať farebnosť tónu, charakter textúry a dynamické proporcie skladby. Nasleduje rozbor rytmických vrstiev, ktorý je mimoriadne dôležitý pri dielach pracujúcich s polymetriou, synkopáciou či nepravidelnými útvarmi.
Pedagogická prax odporúča striedať prácu v sekciách so skúškami celku, čím sa podporuje detailné precvičenie partitúry a celková súhrová stabilita. Významným prvkom metodického procesu je aj spoločná reflexia, opierajúca sa o Kolbov (1984) cyklus zážitkového učenia, kde žiaci interpretujú svoje skúsenosti, pomenúvajú problémy a formulujú riešenia.
Súčasná tvorba ponúka ideálny priestor pre tvorivé zadania, napríklad vytváranie krátkych hudobných miniatúr na motívy preberaných diel. Tým sa podporuje estetická senzitivita, kompozično-improvizačné myslenie a hlbšie porozumenie hudobnému jazyku súčasných skladateľov. Tento metodický rámec predstavuje komplexný a funkčný model práce, ktorý je v súlade s modernými trendmi hudobnej pedagogiky 21. storočia.

6 DISKUSIA

zrakových, dychových a pohybových signálov usmerňuje tempo, nástupy, frázuje a tvaruje výraz, pričom zároveň aktívne hrá svoj part.

Implementácia súčasnej slovenskej komornej tvorby do výučby na ZUŠ naráža na niekoľko systémových a metodických obmedzení, ktoré je potrebné reflektovať. Významnou prekážkou je najmä obava pedagógov z moderných kompozičných jazykov, ktoré sú často vnímané ako interpretačne alebo teoreticky náročné. Tento postoj súvisí aj s nedostatočnou znalosťou repertoáru, keďže mnohí učitelia nemajú k dispozícii aktuálne databázy diel, praktické metodické materiály či vzorové interpretácie.
Ďalším limitujúcim faktorom je nedostatok metodických odporúčaní, ktoré by pedagógom pomohli zaradiť súčasnú hudbu do výučby systematicky a s koncepčnou gradáciou. Absencia jasných repertoárových stratégií spôsobuje, že súčasné diela sú využívané skôr sporadicky a náhodne než ako integrálna súčasť kurikulárneho rámca.
Príspevok preto poukazuje na potrebu vytvorenia stabilnej pedagogickej infraštruktúry, ktorá by zahŕňala súbory odporúčaných diel, metodické listy, učebné materiály a dostupné nahrávky. Zavedenie súčasnej slovenskej komornej tvorby do výučby tak môže byť nielen estetickým a interpretačným prínosom, ale aj impulzom na modernizáciu celého systému komornej výučby, v súlade s európskymi trendmi hudobnej edukácie.

7 ZÁVER

Súčasná slovenská komorná tvorba predstavuje významný, no v pedagogickej praxi ZUŠ doposiaľ málo využívaný potenciál, ktorý možno cielene uplatniť pri modernizácii predmetu Komorná hra. Analýza teoreticko-historických, kurikulárnych a didaktických súvislostí ukazuje, že tento repertoár spĺňa nároky súčasných pedagogických paradigmat. Podporuje kreatívne, participatívne a reflexívne učenie, rozvíja technicko-auditívne zručnosti žiakov a zároveň posilňuje ich estetickú otvorenosť k hudobným javom 20. a 21. storočia.
Diela Ľuda Kuruca a Jozefa Hudáka, predstavené v tomto príspevku ako modelové ukážky dobrej praxe, poukazujú na možnosti, ktoré moderná slovenská hudba poskytuje pre pedagogické prostredie: dostupnú technickú náročnosť, jasnú formovú výstavbu, primeraný moderný jazyk a zvukovú invenciu vhodnú na rozvoj komorných kompetencií. Ich tvorba zároveň reaguje na identifikovanú repertoárovú medzeru a poskytuje kompozične kvalitné diela, ktoré možno systematicky zaradiť do gradácie výučby komornej hry.
Metodické odporúčania definované v texte ponúkajú učiteľom konkrétny rámec, ako pracovať so súčasným repertoárom od výberových kritérií cez analyticko-percepčné stratégie až po tvorivé aktivity, ktoré podporujú aktívne uchopenie hudobného materiálu. Ich implementácia vytvára predpoklady pre etablovanie moderného a didakticky prepracovaného prístupu ku komornej hre, ktorý rešpektuje európske trendy umeleckého vzdelávania.
Modernizácia výučby komornej hry na ZUŠ prostredníctvom súčasnej slovenskej tvorby preto nie je len otázkou estetickej aktualizácie, ale najmä otázkou metodickej a kurikulárnej relevancie. Zavedenie takéhoto repertoáru predstavuje systémový krok smerom k otvorenejšiemu a reflexívnejšiemu umeleckému vzdelávaniu, ktoré rozvíja interpretačnú autonómiu, tvorivú flexibilitu a kultivované hudobné myslenie žiakov.

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GOTICKÉ DIEVČATÁ A REBELSKÉ ŽENY: VZOSTUP ANTIHRDINIEK V SÚČASNEJ TELEVÍZII

GOTH GIRLS AND REBELLIOUS WOMEN: THE RISE OF THE ANTIHEROINE IN CONTEMPORARY TELEVISION

Mária Dolniaková

Abstrakt

Hlavným cieľom tohto textu je priblížiť, akými spôsobmi sú stvárnené ženské antihrdinky v súčasnej epizodickej televíznej tvorbe určenej pre globálne publiká. Zameriavame sa na identifikovanie ich charakteristických znakov a atribútov v kontexte súčasnej kultúry a spoločnosti. V rámci výberu výskumného materiálu sa sústredíme na najsledovanejšie televízne drámy za rok 2025, pričom štyri aktuálne najpopulárnejšie podrobujeme naratívnej a diskurzívnej analýze. Zistili sme, že skúmané postavy Wednesday, Maura, Carol alebo Vel do istej miery vykazujú vlastnosti typické nielen pre antihrdinky, ale aj pre antihrdinov, a to vzhľadom na to, že vo svojom správaní nesú aj maskulínne charakteristiky. Prínos príspevku spočíva v rozšírení informácií o špecifikách súčasného ženského antihrdinstva na televíznych obrazovkách.

Kľúčové slová: *antihrdina, antihrdinka, hrdina, hrdinka, televízna dráma, televízny seriál*

Abstract

The main aim of this text is to explore how the female antiheroines are portrayed in contemporary episodic television dramas intended for global audiences. We focus on identifying their distinctive characteristics and attributes in the context of contemporary culture and society. For our analysis, we selected four most-watched television dramas in 2025 and subjected them to narrative and discursive analysis. Our findings reveal that the examined characters Wednesday, Maura, Carol and Vel to some extent exhibit characteristics typical not only of antiheroines but also of antiheroes, given that their behavior also displays masculine traits. The contribution of this paper lies in expanding knowledge of the specifics of contemporary female anti-heroism on television screens.

Key words: *antihero, antiheroine, hero, heroine, television drama, television series*

1 ÚVOD DO PROBLEMATIKY (ANTI)HRDINSTVA

Hrdinovia a hrdinky sú dôležitou súčasťou každého príbehu už po staročia. Vo všeobecnosti ich možno považovať za osobnosti s tými najlepšími vlastnosťami, predstavujú ideálnu predstavu o dokonalom človeku, ktorá je obdivuhodná. V reálnom svete ide o ľudí, ktorí urobili hrdinský čin, významný dobrý skutok alebo sa obetovali pre záchranu iných. Hrdinu alebo hrdinku možno chápať aj ako archetyp, pričom v tomto prípade zohrávajú kľúčovú úlohu v riešení konfliktu a zároveň v príbehu vytvárajú aj napätie (Rusňáková a kol., 2023). Archetypy tvoria nevyhnutnú časť *kolektívneho nevedomia* (Jung, 1998). Ich prítomnosť je nevedomá a geneticky zakorenená v každom človeku bez ohľadu na jeho pôvod, náboženstvo, rasu či obdobie, v ktorom žije. Ide o základné, univerzálne symbolické vzory alebo motívy prítomné v ľudskej psychike prejavujúce sa v snoch, mýtoch, rozprávkach, rôznych výtvoroch fantázie, umeleckých dielach či kultúrnych obradoch (Dolniaková, 2024). Formujú základné vzorce správania, reakcií a vnímania sveta. Našu konkrétnu predstavu o hrdinstve vždy ovplyvňuje aktuálna socio-kultúrna situácia, ktorá „Vychádza z materiálnych a technologických podmienok ľudskej (a zároveň tiež mediálnej) komunikácie. Univerzálnosť, všeobecnosť a nadčasovosť najznámejších archetypov a mýtických vzorov (vrátane hrdinstva) sa preto v jednotlivých historických obdobiach prejavovala a stále prejavuje inak“ (Radošinská & Rusňáková, 2023, p. 7).

V súčasnej mediálnej produkcii ale nastáva odklon od vnímania hrdinov a hrdiniek ako obdivuhodných vzorov správania. Aktuálne sú komplikovanejší a komplexnejší, môžu mať negatívne povahové vlastnosti, sklony k násiliu alebo nadľudskú silu (Radošinská & Rusňáková, 2023). Zvyšujúca sa popularita antihrdinov, antihrdiniek, superhrdinov a superhrdiniek vyplýva práve zo sociálnej a kultúrnej situácie 21. storočia. Radošinská a Rusňáková (2023) upozorňujú na paranoidný strach z teroristických hrozieb, ktorý sa v spoločnosti rozmohol po 11. septembri. Možno dodať, že obavy v spoločnosti šíria aj aktuálne prebiehajúce vojny na Ukrajine či v Pásme Gazy. „Logickým dôsledkom je snaha vytvárať hrdinské postavy, ktoré vďaka nadľudským schopnostiam dokážu eliminovať každú hrozbu (pozemskú aj mimozemskú). Sú ‚silné‘ a ‚slabé‘“ (Radošinská & Rusňáková, 2023, p. 70). To znamená, že sú blízke ľuďom – sú sentimentálne, vtipné, fyzicky silné, a hoci sú často násilné, dokážu prejaviť aj súcit či empatiu. Publiká obľubujú antihrdinov a antihrdinky aj z toho dôvodu, že majú zmysel pre humor, nadľudskú silu alebo superschopnosti, prípadne riešia konflikty rozhodne a väčšinou násilím. „Tieto charaktery sú často atraktívne, fyzicky príťažlivé a zábavné, ale absolútne nerešpektujú žiadne vyššie ideály alebo kultúrne hodnoty. Často neveria vôbec nikomu a ničomu a ich ciele sú nejasné alebo sa v priebehu príbehu viackrát menia“ (Radošinská & Rusňáková, 2023, p. 69). Podľa Malíčka (2008) by sa dali všetky postavy súčasnej populárnej kultúry definovať ako antihrdinské, a to vzhľadom na všeobecné chápanie toho, čo je a čo nie je morálne. „Antihrdina sa prezentuje so všetkými svojimi nedokonalosťami a nedostatkami. Je úprimný, na nič sa nehrá, preto ho publikum neraz zbožňuje. Ide o typ postavy, s ktorou sa môžu ‚porovnávať‘, pretože má podobné nedostatky ako oni sami“ (Magalová, 2021, p. 80). Úlohou antihrdinských postáv nie je reprezentovať posolstvá týkajúce sa morálnosti alebo nemorálnosti, ale skôr reprezentovať audiovizuálne príbehy a robiť ich zaujímavejšími (Radošinská & Magalová, 2022). A práve tento typ postáv vzbudzuje u publika záujem.

Antihrdin(k)a môže na jednej strane predstavovať opozitum voči hrdinskej postave, teda záporáka alebo záporáčku či personifikované zlo v opozitnom vzťahu k personifikovanému dobru (Malíčková a kol., 2017). Na strane druhej „[...] za antihrdinu môžeme považovať i postavu vo funkcii hrdinu, avšak s morálne naštrbeným profilom“ (p. 42). Antihrdinská postava je morálne nejednoznačná, má zložitú kombináciu sympatických a nesympatických vlastností a dopúšťa sa závažných morálnych prehreškov (Pinedo, 2021). Populárnymi charaktermi tohto typu sú v súčasnej dobe napríklad Deadpool, Joker, Harley Quinn, Winter Soldier či Cersei Lannisterová. Podľa Malíčkovej a kolektívu sa rozdiel medzi hrdinskou a antihrdinskou postavou zotiera práve v smrti: „Antihrdinov síce neoplakávame, iste, ani za nimi nesmútime, ale rovnako ako hrdinov, si ich pamätáme. Svojím antihrdinským životom prekonávajú smrť a vstupujú do pamäti, kde prežívajú presne takisto, ako hrdinovia [...]“ (2017, p. 42). Dôležité je poznamenať, že hrdin(k)a sa väčšinou rodí práve svojou smrťou (keď sa napríklad v záujme záchrany obetuje) a následne žije večne v našich spomienkach ako prototyp dokonalého človeka (Radošinská & Rusňáková, 2023). Podľa Malíčkovej a kolektívu možno antihrdinstvo rozčleniť na fundamentálne, latentné a pragmatické antihrdinstvo.

Fundamentálny(a) antihrdin(k)a predstavuje typ postavy, ktorej morálny kódex je v absolútnej opozícii voči hodnotovému rámcu hlavných postáv. „Je úplný vo svojom antagonizme, principiálne nepochybujúci, je zbavený existenciálnych dilem a v takomto svojom vymedzení je úplný“ (Malíčková a kol., 2017, p. 43). Je presvedčený, že jeho konanie a názory sú správne (Radošinská & Magalová, 2022). Za svoje často kruté činy sa neospravedlňuje, pretože z nich jednoducho nemá výčitky svedomia. „Antihrdinky a antihrdinovia tohto typu sa nemôžu a ani nechcú zmeniť k lepšiemu. Nemajú žiadne výčitky svedomia, nepochybujú, nekonajú chaoticky ani náhodne“ (Radošinská & Rusňáková, 2023, p. 71). Nemožno ich presvedčiť, aby konali inak. Dôvodom je, že disponujú vlastným hodnotovým rebríčkom a všetko, čo robia, vychádza z ich vnútorného presvedčenia, že konajú správne. Jediným riešením je ich eliminácia, zlikvidovanie alebo porazenie. **Latentný(á) antihrdin(k)a** sa rodí väčšinou v dôsledku osobnej tragédie alebo nešťastnej udalosti. „[...] čelí všakovakým existenciálnym úzkostiam a strachom a vyrovnáva sa s nimi tak, že sa stane antihrdinom“ (Malíčková a kol., 2017, p. 44). Tento konflikt postavu následne opakovane zavádza do situácií, kedy sa musí rozhodovať medzi dobrom a zlom. Vie, že na porazenie reálnych monštier sa musí stať monštrom, respektíve monštruóznym (Radošinská & Magalová, 2022). V konečnom dôsledku môže príbeh tohto typu charakteru končiť tragicky. Ide o potenciálne krehkú a dočasnú formu antihrdinstva (Radošinská & Rusňáková, 2023), pretože hoci takáto postava urobila strašné rozhodnutia, ubližovala, podvádzala či niekoho zradila, skôr či neskôr u nej dôjde k morálnemu obratu. Svoje zlé činy napokon oľutuje. **Pragmatický(á) antihrdin(k)a** je definovaný(á) účelnosťou a funkciou v príbehu, uprednostňuje svoj vlastný morálny kódex (Malíčková a kol., 2017). Tento typ antihrdinstva je v popkultúre síce najčastejšie využívaný, avšak morálne najmenej zaujímavý: „Všetci sú totiž, podobne ako ich príbehy, [...] viac-menej predvídateľní, už kvôli tomu, že milujeme dobré konce“ (Malíčková a kol., 2017, p. 46). Napriek tomu, že pragmatickí antihrdinovia a antihrdinky poznajú rozdiel medzi morálnym a nemorálnym konaním, často podvádzajú, zabíjajú alebo klamú, pričom konajú vo svojom vlastnom záujme. „V centre pozornosti sú vždy ich osobné ambície a hľadajú čo najefektívnejší spôsob, ako ich naplniť, bez ohľadu na prípadné následky (ktoré sa netýkajú priamo ich)“ (Radošinská & Rusňáková, 2023, p. 72).

Radošinská a Magalová (2022) sú názoru, že antihrdinské postavy sú často zaujímavejšie, viacrozmerné, schopné obohatiť dej a odlíšiť ho od iných príbehov. Práve epizodická povaha televíznych drám podľa autoriek umožňuje prezentovať tento typ postáv neočakávanými spôsobmi. V porovnaní s minutážou filmových diel majú totiž postavy v príbehu televíznych drám podstatne viac času na svoj vývoj, priblíženie motivácií, minulosti či opakované rozhodovanie sa medzi dobrom a zlom. „Antihrdinské postavy v televízii sa neustále vyvíjajú a menia, pričom úlohou publika je odhaľovať ‚vrstvy‘ ich osobnosti. Pre mnohých sú tieto charakteristiky zaujímavejšie, komplikovanejšie, schopné ozvláštniť príbeh, ktorý by sa inak rýchlo vyčerpal“ (Radošinská & Rusňáková, 2023, p. 76). Vo výsledku sú postavy stvárnené podstatne komplexnejšie. Toto je dôležité zvlášť v súvislosti s vyobrazením ženských postáv, ktoré majú v televíznych drámach vyššiu šancu skutočne predstaviť svoju komplexnosť a hĺbku. Naopak, vo filmoch sú často stále objektifikované a ich úloha sa obmedzuje na doplnkovú k mužskému hrdinovi.

2 ŠPECIFIKÁ ŽENSKÉHO ANTIHRDINSTVA

Zobrazovanie ženských postáv v súčasnej televíznej tvorbe odráža významný vývoj oproti „tradičným“ reprezentáciám. Sú komplexnejšie, vyrovnávajú sa s osobnými aj spoločenskými výzvami. Hoci stelesňujú psychickú silu (v akčných dielach často aj tú fyzickú) a nezávislosť, zápasia aj s otázkami ženskosti, intimity a spoločenských očakávaní. Toto diferencované zobrazovanie je zjavné v rôznych žánroch. Napríklad v súčasných kriminálnych drámach vystupujú v hlavných úlohách ženy – detektívky. Rahmawati a kolektív vo svojej štúdii z roku 2020 skúmala štyri televízne diela, v ktorých ústrednými hrdinkami boli detektívky. Zatiaľ čo televízia a film často zobrazuje ženské postavy ako sexuálne objekty, podľa autorského kolektívu sa súčasné kriminálne drámy zdanlivo snažia takéto zobrazenie vyvrátiť. Hoci hlavné hrdinky boli komplexnejšie a v dielach odkazovali aj na feministické otázky, v niektorých prípadoch bola prítomná sexualizácia ženských obetí (Rahmawati a kol., 2020). Vývojom od sexualizácie k zložitejšiemu vyobrazeniu prešli aj hrdinky akčných diel. Od Ellen Ripleyovej, Sarah Connorovej a Kathryn Janewayovej až po súčasné ženské líderky sa hrdinky vyznačujú komplexnejším vyobrazením, ktoré spochybňuje „tradičné" rodové roly (Engelbrechtová, 2020). Na túto dualitu medzi mužskosťou a ženskosťou poukazuje aj Fineová (2012). Postavy ako Gemma Teller Morrowová a Mary Shannonová sú podľa nej príkladom rovnováhy medzi silou a zraniteľnosťou. Tieto ženy často čelia emocionálnym výzvam, ktoré komplikujú ich rolu (Fine, 2012). Autorka sa domnieva, že hoci sa hrdinky západných televíznych diel vyvinuli do nezávislejšej a mocnejšej pozície, stále prejavujú črty viažuce sa k „tradičným" rodovým očakávaniam. Táto dualita odráža širšie spoločenské témy. Divákom a divačkam umožňuje stotožniť sa s postavami a zároveň kritizovať obmedzenia vyplývajúce z „tradičných" rodových rolí. Aj v dielach z iných žánrov (ako sci-fi, fantasy, špionážnych a politických titulov) sú v posledných rokoch v úlohách hlavných postáv prítomné silné, moderné ženy – vzory, ktoré môžu diváci a divačky sledovať a obdivovať (Evelina, 2023). Hoci sa nájdu kritičky a kritici tvrdiaci, že ženské postavy sú stále obmedzované a definované dodržiavaním „tradičných" rodových stereotypov a vzťahmi s mužskými postavami, posledných tridsať rokov televízie bolo podľa autorky formujúcim a progresívnym obdobím v týchto otázkach. Dôsledkom sú silnejšie a nezávislejšie ženy, ktoré vedú v boji proti rôznym protivníkom (Evelina, 2023). Napriek tomu sa podľa nej stále vyrovnávajú s problémami reálneho sveta. Vo výsledku sú tak autentickejšie.

V rámci tejto problematiky sa objavujú menšie terminologické nejasnosti. V rámci tejto témy je dôležité reflektovať rozdiel medzi ženským hrdinom a ženskou hrdinkou. Tieto pojmy celkom úspešne konkretizovala Engelbrechtová (2020). Ženský hrdina (angl. *female hero*) podľa nej predstavuje ženu, ktorá robí a je všetkým, čo sa spája s mužským hrdinstvom – zosobňuje mužského hrdinu v ženskom tele. Termín hrdinka (angl. *heroine*) sa podľa autorky vzťahuje konkrétne na ženskú verziu hrdinstva, ktorá sa vyznačuje hybridnosťou mužskosti a ženskosti. Predpokladáme, že rovnakým spôsobom je možné pristúpiť k diferencovaniu pojmov ženský antihrdina a antihrdinka, hoci táto problematika má svoje špecifiká. Pokiaľ ide o antihrdinov a antihrdinky, aktuálne ide o najobľúbenejší typ postáv v populárnej kultúre. Gingl-Tatárová (2005) v rámci záporného hrdinu vysvetľuje, že ak je hrdina napriek svojej nejednoznačnosti charizmatický, publikum mu dokáže odpustiť čokoľvek okrem hrdelného zločinu. U antihrdiniek to ale neplatí vždy. Antihrdinov a antihrdinky totiž obmedzujú genderové dopady kultúrnych noriem jednotlivých žánrov. Podľa Mittella (2019) ide najmä o to, že muži sú skôr reflektovaní a obdivovaní za nemilosrdnosť a/alebo snahu uspieť za každú cenu či presadiť sám seba. Ženy sú však ešte stále konštruované ako nesebecké, starostlivé – môžeme ich chápať ako nositeľky hodnôt spoločnosti. V dôsledku týchto kultúrnych noriem sa môže voči pochybnej ženskej postave – antihrdinke – zdvihnúť u divákov a divačok vlna odporu. Zatiaľ čo od mužov sa očakáva, že budú zachraňovať spoločnosť, úlohou žien je prezentovať a demonštrovať hodnoty a záväzky tejto spoločnosti (Hagelin & Silverman, 2022, in Radošinská & Magalová, 2022). V prípade ak je ženská postava narcistická, sebecká alebo sa zrieka konvenčného ideálu ženskosti, často býva automaticky označená ako antihrdinka. V skutočnosti však mnohé antihrdinky – hoci reprezentujú nekonvenčné ženstvo – prijímajú manželstvo, rodinu, heterosexualitu či konzumerizmus (Radošinská & Magalová, 2022). Rozdiel medzi antihrdinami a antihrdinkami v televíznych drámach súvisí predovšetkým s rodovo podmienenými príbehmi a zložitosťou ich charakterizácie. Ich zobrazenie často odráža spoločenské očakávania a rodové normy. Z toho dôvodu sa často stáva, že ženskú postavu nebude publikum vnímať ako charizmatického zloducha – ako je to u mužských antihrdinov – ale ako „dominantnú mrchu" (Mittell, 2019). Podľa Mittella (2019) bývajú antihrdinky buď sympatické a zároveň tvrdohlavé a problémové, alebo sú vykreslené komediálnym spôsobom.

Pinedová (2021) opisuje postavu zložitej alebo problémovej ženy (angl. *difficult woman*), ktorá nie je priamou antihrdinkou, prekračuje normy ženskosti neospravedlniteľne a systematicky. Je drsná, agresívna, ambiciózna, často definovaná viac prácou než materstvom, občas nesympatická (Pinedo, 2021). Problémová žena vznikla v období meniaceho sa priemyslu, ktorý ako prvý vyvinul mužského antihrdinu. Išlo o dôsledok ekonomických, regulačných a technologických zmien v 80. a 90. rokoch 20. storočia, ktoré zmenili fungovanie televízneho priemyslu a podporili vznik kumulatívneho komplexného rozprávania (Pinedo, 2021). Vzor problémovej ženy sa podľa Pinedovej (2021) chronologicky posunul od vedľajšej manželky antihrdinu; cez patologizovanú ženu antihrdinku; ženu antihrdinku spolupracujúcu so svojím manželom antihrdinom na nezákonných aktivitách; až po normalizovanú feministickú antihrdinku a hrdinku problémovej ženy. Autorka sa odvoláva na producentku Noxonovú, ktorá tieto postavy v rozhovore s Gilbertovou (2018) nazýva nahnevané ženy (angl. *angry women*). Podľa Lewisovej „problémová znamená v prvom rade komplikovaná [...]" (2021, p. 17.). Dodáva, že ženám, ako aj mužom, musí byť vo všeobecnosti povolené mať charakterové chyby (Lewisová, 2021). Avšak je treba poznamenať, že povahové nedostatky hodnotí publikum u mužských a ženských postáv rozdielne. Postava ženskej antihrdinky má bližšie k mužskému antihrdinovi seriálových príbehov, ktoré koncom 90. rokov vytvorila televízia HBO a ktoré v roku 2000 prevzali káblové stanice (Pinedo, 2021). Televízne antihrdinky sú podľa Radošinskej a Magalovej (2022) produktom súčasnej feministickej ideológie a ukazujú ich fyzickú zdatnosť, profesionálny úspech a odpor voči mužskej autorite. Autorky ale dodávajú, že často nehľadajú spravodlivosť, ale ide im skôr o pomstu, chamtivosť, potešenie a sebapropagáciu, pričom vo výsledku väčšinou nie sú úspešné. Niektoré súčasné televízne antihrdinky a antihrdinovia prekračujú ktorúkoľvek zo zostávajúcich hraníc medzi antihrdinstvom a zlodušstvom (angl. *villainy*) (Radošinská & Magalová, 2022).

Gardnerová a Millerová (2024) vo svojej analýze porovnávajú antihrdinky Camille Preakerovú z miniseriálu *Sharp Objects* (Layton a kol., 2018) a Mare Sheehanovú z miniseriálu *Mare of Easttown* (Lee a kol., 2021). Tvrdia, že antihrdinka je definovaná svojím vzťahom k materstvu, sexualite a násiliu. Dynamika matky a dcéry sa tu prejavuje dvojako: 1) v diele *Sharp Objects* ako deštrukcia seba aj druhého prostredníctvom dynamiky, ktorá je monštruózna a pohlcujúca; a 2) v seriáli *Mare of Easttown* ako zdroj zmierenia a uzdravenia prostredníctvom vykupiteľskej vízie materstva (Gardner & Miller, 2024). Oba miniseriály konfrontujú myšlienku, že morálne zlyhania antihrdinky sú výsledkom zlého materstva. Avšak diela poukazujú na to, že kontrolu nad sebou samým možno získať odporom voči predstavám o materskej skaze. Je otázne, ako uchopia ženské antihrdinstvo tvorcovia *Mare of Easttown* v novom diele s názvom *Task* (Lee et al., 2025). Autori opakovane využívajú rovnaký koncept a hoci v *Task* je hlavnou postavou muž, členkami jeho tímu sú dve ženy.

Otázka materstva zohráva v prípade antihrdiniek naozaj dôležitú úlohu. Ak má žena deti, diváčstvo jej nedokáže odpustiť, ak sa správa nezodpovedne, sústredí sa na kariéru, ide proti spoločenským konvenciám alebo je sexuálne aktívna (mimo manželstvo, prípadne ako slobodná matka). Z toho dôvodu je antihrdinka buď bezdetná, alebo o svoje deti príde v priebehu deja (Hagelin & Silverman, 2022). Postavy, ktoré sú matkami, ale namiesto materstva uprednostnia svoju prácu, sú bežne vykresľované ako hrozné matky a ich zlyhanie ako rodičov sa stáva hlavným zameraním televíznych diel (Klecker, 2020). Materstvo predstavuje podľa Kleckerovej (2020) prirodzenú, normálnu voľbu pre ženu. Ak ho odmietne, podľa autorky je táto žena považovaná za neprirodzenú, abnormálnu alebo duševne chorú. Radošinská a Magalová (2022) dodávajú, že pokiaľ ide o antihrdinov, otcovstvo ich môže v očiach diváčstva vykúpiť a urobiť ho sympatickejším, pretože publikum si účinne pripomína jeho väzby k ľudstvu.

Mužskí antihrdinovia, ako napríklad Tony Soprano, Dexter Morgan a Walter White, sa často dopúšťajú morálne pochybného správania, avšak publikum ich napriek tomu akceptuje. Vaageová (2015) je názoru, že tvorcovia totiž pomocou fiktívneho kontextu a naratívnych stratégií nabádajú divákov a diváčky k zapojeniu na emocionálnej a intuitívnej úrovni, pričom úplne deaktivujú ich racionálne hodnotenie. Preto, napriek svojim činom, antihrdinovia často vyvolávajú sympatie. Ich príbehy, morálne zlyhania aj konanie sa zvyčajne zameriava na dosahovanie moci, dominancie, kontroly a dôsledky ich činov, čo odráža iný súbor spoločenských očakávaní. Rozdiely medzi stvárnením antihrdiniek a antihrdinov (zaznamenané v tabuľke 1) poukazujú na pretrvávajúci boj ženských postáv o presadenie svojej identity v prostredí rozprávania, ktorému dominujú muži. Ide takisto o rozdielnosti medzi spoločenskými očakávaniami a rodovými rolami. Hoci antihrdinky a antihrdinovia majú spoločné črty morálnej nejednoznačnosti, ich naratívy sa výrazne líšia vzhľadom na spoločenské dôsledky pohlavia, čo vedie k odlišným tematickým skúmaniam v televíznych drámach. Tento rozdiel podčiarkuje širšie kultúrne problémy týkajúce sa rodovej reprezentácie v médiách.

Tabuľka 1 Porovnanie rozdielov v stvárnení antihrdinov a antihrdiniek

Problematika	Antihrdina	Antihrdinka
Motivácia	Dosiahnutie moci, pomsty, spravodlivosti	Vyrovnávanie sa s traumou, snaha o prežitie, hľadanie identity
Emocionalita	Má svoje chyby, ale je prinajmenšom charizmatický	Nebezpečná, nestabilná, zvodná
Silné stránky	Fyzická sila, schopný násilia, dominantný	Emocionálna sila, schopná manipulovať, sabotovať
Dynamika rodových rolí	Posilňuje tradičnú mužnosť, resp. maskulinitu	Zneužíva svoju ženskosť vo svoj prospech
Naratívny výsledok	Často prežije, niekedy sa aj napraví	Častejšie je potrestaná alebo hanobená, označená za abnormálnu

Zdroj: Vlastné spracovanie (2025)

3 METODOLÓGIA

Hlavným cieľom tohto textu je priblížiť, akými spôsobmi je prezentovaný charakter ženských antihrdiniek v súčasnej epizodickej televíznej tvorbe určenej pre globálne publiká. Zameriavame sa na identifikovanie ich charakteristických znakov a význam v kontexte súčasnej kultúry a spoločnosti. V rámci výberu výskumného materiálu sa sústredíme na najsledovanejšie televízne drámy za rok 2025, ktorých rebríček pravidelne aktualizuje portál The Internet Movie Database (b.d.). Vyberáme[1] prvé štyri najsledovanejšie televízne drámy, ktoré v štvrtej kapitole podrobujeme naratívnej a diskurzívnej analýze. V zhrnutí odpovedáme na výskumné otázky a dosiahnuté výsledky komparujeme ich s teoretickými východiskami.

[1] Poznámka autorky: Rebríček sme prebrali dňa 1. júla 2025.

V závere poukazujeme na najdôležitejšie zistenia. Pri formulácii analytických kategórií vychádzame súvisle z tabuľky 1. Stanovujeme ich nasledovne:

Kategória A: Motivácia postáv. Zaujíma nás, čo je hlavným cieľom antihrdiniek a v čom spočíva sila, ktorá ich posúva vpred (naratívna analýza).

Kategória B: Vyjadrenie emócií. Skúmame, aký obraz o sebe majú antihrdinky a ako pôsobia v jednotlivých dielach na svoje okolie v rámci emocionality (diskurzívna analýza).

Kategória C: Silné stránky. Zisťujeme, v čom spočíva sila jednotlivých postáv a akým spôsobom sa prejavuje (naratívna analýza).

Kategória D: Dynamika rodových rolí. Zaujímame sa o spôsoby, akým sú v dielach prítomné rodové roly a očakávania vzťahujúce sa k antihrdinkám (diskurzívna analýzy).

Kategória E: Naratívny výsledok. Skúmame, či sa antihrdinkám podarilo dosiahnuť svoj cieľ, alebo aký je záver ich príbehu (naratívna analýza).

Výskumné otázky formulujeme týmto spôsobom:

VO1 V čom spočíva motivácia antihrdiniek dosiahnuť svoje ciele?
VO2 Ako emocionálne pôsobia antihrdinky na svoje okolie?
VO3 V čom sa prejavujú silné stránky antihrdiniek?
VO4 Ako sa prejavuje prítomnosť rodových rolí a spoločenských očakávaní?
VO5 Do akej miery sa antihrdinkám podarilo naplniť svoje ciele?

4 INTERPRETÁCIA VÝSLEDKOV

V tejto časti textu prechádzame k analýze jednotlivých diel.

4.1 *Wednesday*

Prvú desiatku najsledovanejších televíznych diel otvára netflixový originál *Wednesday* (Gough a kol., 2022-dodnes). Hlavnou postavou je Wednesday Addamsová (stvárňuje ju herečka Jenna Ortega), ktorá sa v príbehu snaží zvládnuť svoje rozvíjajúce sa psychické schopnosti a vyriešiť záhadu svojich rodičov. Wednesday je veľmi špecifickou postavou, ktorú nemožno ani úplne označiť ako hrdinku, ani antihrdinku. Je zosobnením prelínajúcich sa línií a nejasných hraníc medzi (anti)hrdinstvom. Dielo žánrovo radíme medzi temné tínedžerské fantasy s prvkami komédie, záhady a krimi.

Kategória A: Motivácia postáv. Wednesday sa ocitá na akadémii Nevermore pre vyvrheľov. Zdieľa izbu so študentkou menom Enid Sinclairová, ktorá predstavuje presný opak jej samej. Jej hlavným cieľom je vyšetriť sériu vrážd, ktorá sa odohráva na akadémii a v jej okolí. Wednesday je známa postava „gotičky" typická svojím sarkazmom a fascináciou smrťou, temnotou a neznámom. Jej intelektuálna zvedavosť ju priťahuje k rôznym záhadám. Hoci odmieta konvenčnú morálku, snaží sa dosiahnuť spravodlivosť. Tú však formuje podľa svojich vlastných predstáv, čím spĺňa jeden zo znakov antihrdinstva. Jej túžba odhaliť pravdu je prepojená s potrebou mať pravdu a dokázať okoliu, že je mu intelektuálne nadradená a nezávislá. Je pre ňu dôležité zachovávať si odstup od ostatných a byť v priamej opozícii voči spoločenským očakávaniam, a to vrátane očakávaní svojej rodiny. Koná na základe logiky, pomsty alebo zvedavosti, nie súcitu.

Kategória B: Vyjadrenie emócií. Wednesday je chladná, cynická, sarkastická a často emocionálne odmeraná. Pestuje si chladnú osobnosť inklinujúcu k vzdoru. Zámerne sa dištancuje od emócií, „tradičnej" ženskosti a úplne ignoruje dodržiavanie móresov. Jej emocionálny chlad rovesníkov a spolužiakov mätie, zastrašuje alebo frustruje. Avšak jej spolubývajúca Enid si k nej postupne dokáže nájsť cestu, pretože si váži jej lojalitu a silu. Autority na škole často vnímajú Wednesday ako problémovú, kým antagonisti ju otvorene podceňujú. Rodičov – najmä jej matku – odmietanie blízkosti vlastnej dcéry trápi, avšak

snažia sa to rešpektovať a dávajú jej priestor. Wednesday je ale vo svojom vnútri k vlastnej rodine lojálna.
Kategória C: Silné stránky. Sila jej osobnosti spočíva v inteligencii a skvelej dedukcii. V príbehu je silná, pretože dokáže spájať stopy počas toho, ako rieši záhadu svojich rodičov. Okrem toho je odvážna – čelí nebezpečenstvu, dokonca skúma mŕtvoly. Ak má podozrenie, bez okolkov vzdoruje a nedôveruje autoritám. Jej nadprirodzené schopnosti sa prejavujú ako psychické vízie, ktoré jej taktiež pomáhajú zistiť dôležité udalosti. Jej slabosťou sú vzťahy a emocionálna nedostupnosť, v čom ale spočíva aj jej sila. Vďaka tomu totiž dokáže zostať sústredená aj v situáciách, kedy je pod tlakom.
Kategória D: Dynamika rodových rolí. V spôsobe stvárnenia tejto postavy nastáva podkopávanie rodových očakávaní. Wednesday totiž odmieta „tradičné“ ženské správanie – nie je starostlivá, empatická, zdvorilá, zmierlivá a ani emocionálna. Vyhýba sa romantickým zápletkám alebo „zaľúbeniam“, ktoré sú v príbehoch s mladými ženskými postavami samozrejmosťou. Wednesday nepodlieha očakávaniam, ktoré na ňu kladie ako spoločnosť, tak aj jej rodina. Emocionálna zdržanlivosť a racionálna dominancia, ktorú si udržiava, pripomína „tradične“ mužský archetyp. Napriek tomu nenapodobňuje mužov, ale zachováva si vlastnú identitu.
Kategória E: Naratívny výsledok. Napokon sa jej podarilo odhaliť záhadu, ktorá sužovala jej rodičov a odhalila aj skutočnú záporáčku príbehu. Po tomto vyvrcholení však prehodnotila svoju otvorenosť voči priateľstvu a emocionalite spojenú so zraniteľnosťou. Napriek tomu ostáva verná svojej povahe. Jej činy majú trvalé následky, ktoré ju formujú v jej emocionálnom raste.

4.2 *1899*

Televízne dielo *1899* (Friese a kol., 2022), taktiež odvysielané na Netflixe, je aktuálne podľa spomínaného rebríčka druhé najsledovanejšie. Rozpráva príbeh o skupine európskych emigrantov cestujúcich zo Southamptonu v Spojenom kráľovstve na parníku do New Yorku. Počas cesty natrafia na loď plaviacu sa na otvorenom mori a na jej palube sa stretávajú s nočnou morou. Jednou z hlavných postáv je Maura Franklinová (stvárnila ju herečka Emily Beechamová), neurologička a jedna z prvých lekárok v Británii, ktorá cestuje sama do Ameriky. Hoci spočiatku pôsobí ako hrdinka, postupne s odhaľovaním jej minulosti a motivácií zisťujeme, že nesie charakteristiky modernej antihrdinky. Žánrovo dielo radíme medzi dramatický triler s prvkami hororu a dobrodružstva.
Kategória A: Motivácia postáv. Hlavným cieľom Maury je nájsť svojho nezvestného brata, no jej úmysly sú nejasné. Postupným vývojom deja zisťujeme, že je zapojená do udalostí, ktoré sa odohrávajú na lodi, pričom s veľkou pravdepodobnosťou je zodpovedná za veľkú časť z nich. Maura zatajuje ostatným postavám dôležité informácie a hoci tvrdí, že im pomáha, v skutočnosti nimi manipuluje. Vpred ju poháňa hľadanie pravdy, hlboká zvedavosť a túžba zistiť, v čom spočíva jej úloha v celom dianí. Prenasledujú ju sny, ktorým nedokáže úplne porozumieť. Trpí potlačovanými spomienkami a traumou, najmä súvisiacou s jej otcom a experimentmi v simulovanej realite.
Kategória B: Vyjadrenie emócií. Maura sa prezentuje ako racionálna, kompetentná žena, vedkyňa a lekárka. Zosobňuje tak postavu outsiderky s intelektuálnou autoritou. Namiesto emocionálnej zraniteľnosti sa drží logiky a skepticizmu – jej obranného mechanizmu. Spochybňuje autority, je vytrvalá. Ostatní ju rešpektujú pre jej intelekt, no pre jej problémy s pamäťou a emocionálnu nedostupnosť ju často podozrievajú a považujú ju za nespoľahlivú a chladnú.
Kategória C: Silné stránky. Jej sila spočíva v jej vzdelaní a intelekte. Vzhľadom na to, že je lekárkou na konci 19. storočia, čo bolo u žien vzácne, predstavuje istú formu autority. Pre dej je Maura významná, pretože, hoci to spočiatku sama netuší, napokon ona jediná dokáže

zmeniť alebo ukončiť simuláciu, resp. systém. V skutočnosti prostredníctvom simulácie realizuje vrcholnú formu manipulácie. Ovplyvňuje nielen konania iných, ale aj spôsob, akým vnímajú realitu. Jej emocionálna nedostupnosť predstavuje formu (seba)kontroly, prostredníctvom ktorej dokáže zachovať rozvahu a ovládať situáciu aj za chaotických okolností.

Kategória D: Dynamika rodových rolí. Aj v tomto diele dochádza k podkopávaniu rodových rolí. Vzhľadom na to, že dej sa odohráva v 19. storočí, Maura vzdoruje spoločenským očakávaniam tejto doby. Je nezávislá, racionálna a intelektuálne dominantná lekárka, čo sú v kontexte doby črty typické pre mužské postavy. Zapája sa do filozofických debát, ktoré bývajú v tomto type prostredia vyhradené pre mužov. Jej odmietnutie „tradičných“ materských rolí (najmä vo vzťahu k jej synovi Elliotovi v simulácii) spochybňuje ideál starostlivej a obetavej matky. Mužské postavy (ako Eyk alebo jej otec Henry) ju často spochybňujú alebo podkopávajú, ale ona sa odmieta poddať autorite. Na rozdiel od mnohých „tradičných“ ženských postáv Mauru nedefinuje romantika ani očakávaná podoba ženskosti ženskosť. Napriek tomu, že sa nebráni prípadnému sexuálnemu vzťahu, chýba v ňom emocionalita a primárna je telesnosť.

Kategória E: Naratívny výsledok. Maura dosiahla svoj cieľ čiastočne. Podarilo sa jej odhaliť pravdu o simulácii a spoznala aj svoju vlastnú úlohu v tomto konflikte. Avšak namiesto úniku z nočnej mory sa prebúdza do inej vrstvy reality – tentoraz do vesmírnej lode v roku 2099, ktorú ovláda jej brat Ciaran. Vo výsledku po absolvovaní mnohých prekážok sa stáva sebavedomejšou, uvedomelejšou a zodpovednejšou, pretože preberá zodpovednosť za svoje minulé rozhodnutia.

4.3 *The Walking Dead*

Kultová séria *The Walking Dead* (Darabont a kol., 2010-2022) sa začala vysielať ešte v roku 2010 a pokračovala až do roku 2022. Aktuálne sa v rebríčku najsledovanejších seriálov za rok 2025 drží na treťom mieste. V tejto televíznej dráme je veľmi veľké množstvo rôznych typov antihrdiniek a postáv pohybujúcich sa v sivej zóne. Je preto náročné vybrať jednu z nich, ktorú by sme podrobili analýze. Avšak jedinou ženou, ktorá sa objavila v každej sezóne tohto diela, bola Carol Peletierová (zahrala ju herečka Melissa McBrideová). Dostala mnoho priestoru na vývoj svojej postavy a jej premena je skutočne signifikantná. Prešla vývojom od vystrašenej manželky násilníka až po efektívnu vodkyňu. Žánrovo dielo označujeme za psychologickú zombie drámu s prvkami hororu a trileru.

Kategória A: Motivácia postáv. Vzhľadom na dĺžku seriálu je prirodzené, že ciele Carol, ako aj jej motivácia sa postupne menili. Spočiatku hľadala ochranu pre seba a neskôr pre tých, na ktorých jej záleží. Jej cieľom je prežiť. Neskôr sa snaží o bezpečnosť svojej komunity a o uplatnenie morálnej kontroly nad chaotickým svetom. V záujme dosiahnutia týchto cieľov však robí morálne pochybné rozhodnutia – napríklad sa spolčuje s nepriateľmi, podvádza alebo zabíja. Hnacími silami sú v jej prípade trauma (prameniaca z domáceho násilia) a smútok (zo straty dcéry Sophie, neskôr aj ďalších postáv). Jej materinský inštinkt ju po smrti Sophie nabáda k ochrane svojej skupiny. Možno povedať, že jej činy často pramenia zo snahy zabrániť iným, aby trpeli tak, ako ona. Avšak neskôr, po smrti ďalších postáv (vrátane jej adoptívneho syna Henryho), ju poháňa hnev, zúrivosť a túžba po pomste. V tomto bode možno povedať, že Carol vykazuje aj známky duševnej nestability, v skutočnosti je ale tak pohltená hnevom, že sa nedokáže riadiť logikou a držať si emocionálny odstup. Po dosiahnutí pomsty ju začnú trápiť výčitky svedomia, pričom sa snaží napraviť pokazené vzťahy s jej blízkymi.

Kategória B: Vyjadrenie emócií. Z poddajnej obete domáceho násilia sa Carol postupne mení na vyrovnanú, tajnostkársku a taktickú plánovačku. Svoje emócie nedáva veľmi najavo, a ak áno, tak empatiu a láskavosť používa ako nástroje. Je však rovnako schopná chladnej

logiky a násilia. Tvári sa neškodne, najmä pred cudzími ľuďmi, ale v prípade potreby realizuje svoje premyslené ťahy. Jej okolie ju najprv prehliada, prípadne odmieta. A kým spočiatku ju chránia iní, s postupom času je to ona, kto ochraňuje svoju skupinu. Je rešpektovaná, ale obávaná, niektorí ju považujú na nepredvídateľnú.
Kategória C: Silné stránky. Jej zdroje moci spočívajú predovšetkým v strategickom myslení. Carol manipuluje, klame a vyjednáva často lepšie ako tí zastávajúci formálne vedúce pozície. Je schopná sa infiltrovať a ovplyvňovať rozhodnutia skupiny. Dokáže sa tiež emocionálne odosobniť, čo jej pomáha realizovať nevyhnutné a ťažké rozhodnutia alebo činy. Postupne sa z nej stáva aj skúsená bojovníčka a učí sa narábať so zbraňami. Hrozby odstraňuje nenápadne a vypočítavo, často skôr, ako si ktokoľvek iný vôbec uvedomí blížiace sa nebezpečenstvo. Je prefíkaná a vynaliezavá.
Kategória D: Dynamika rodových rolí. Carol spočiatku predstavuje rolu „tradičnej" matky uväznenej vo vzťahu s násilným manželom. Z tejto situácie sa však vymaňuje a postupne naberá na sile. Stáva sa z nej ochrankyňa schopná robiť ťažké rozhodnutia a aj zabíjať v záujme ochrany iných. Týmto podvracia klišé „starostlivej ženy". Do romantických vzťahov sa zapája len veľmi málo, pričom v nich uprednostňuje prežitie pred emocionálnym spojením. Využíva „tradičné" ženské vlastnosti a stereotypy proti ostatným: predstiera, že je slabá a neškodná materská postava, čím úspešne odvracia podozrenie, no vzápätí udiera svojím konaním. Carol je archetypom matky, ktorá preberá zodpovednosť za svojich zverencov a zverenkyne. Na druhej strane však oplýva „tradične" mužskými vlastnosťami. Vo výsledku tak dochádza k podkopávaniu rodových očakávaní.
Kategória E: Naratívny výsledok. Carol čiastočne dosahuje svoje ciele. Jej snahou je primárne chrániť svojich blízkych, čo však nie je možné bez straty. Prežije mnohé osoby, ktoré milovala. Hoci je tvrdá vo svojich bezohľadných rozhodnutiach, v skutočnosti ju vedú k hlbokým pocitom viny. V závere príbehu sa Carol rozhodne pomôcť riadiť komunitu s názvom Commonwealth. Z bezmocnej Carol v úvode sa napokon stáva obávaná, rešpektovaná a komplexná postava.

4.4 *Andor*

Televízne dielo *Andor* (Wohlenberg a kol., 2022-2025) zo sveta Star Wars odvysielané na platforme Disney+ je štvrtým najsledovanejším seriálom. Ústrednou postavou je Cassian Andor (v podaní herca Diega Lunu) – zlodej a rebelský špión, ktorý sa stáva revolucionárom a napokon sa pripája k rebelom. Dielo približuje fungovanie vlády Galaktického impéria a prezentuje, ako sa formovala jej opozícia – Rebelská aliancia. Televízna dráma zobrazuje niekoľko ženských postáv, ktoré spĺňajú charakteristiky antihrdinky. V rámci analýzy vyberáme rebelku menom Vel Sartha (stvárnila ju herečka Faye Marsayová), a to z toho dôvodu, že v diele má viac priestoru na osobnostný rast než ostatné relevantné antihrdinky. *Andor* žánrovo označujeme ako dystopické, špionážne a politické sci-fi.
Kategória A: Motivácia postáv. Kľúčovým zámerom Vel je úspešne viesť lúpež na planéte Aldhani. Ide o súčasť jej snáh podkopať Galaktické impérium a prispieť k formovaniu rebelského spoločenstva. K tomu jej napomáha jej silné ideologické presvedčenie namierené proti impériu a jej osobná túžba po zmysluplnosti. Vel je totiž dcérou z bohatej a vyššie postavenej rodiny. Svoje osobné pohodlie však obetovala v záujme rebelstva. Vnútorne jej záleží na vzťahoch v rodine, avšak často uprednostňuje svoje poslanie.
Kategória B: Vyjadrenie emócií. Vel často zápasí s pochybnosťami a zraniteľnosťou, no prezentuje sa ako nebojácna a schopná líderka. Je tvrdohlavá a navonok neprejavuje svoje obavy. Je v romantickom vzťahu s Cintou Kaz – členkou jej rebelskej skupiny, voči ktorej prejavuje emócie. Spomedzi „tradičných" hrdiniek tak vyčnieva aj svojou priznanou homosexualitou. Vel drží skupinu svojich kolegov-rebelov pohromade svojimi vodcovskými schopnosťami. Avšak tím je spočiatku skeptický a nedôveruje jej vedeniu. Vyplýva to najmä

z toho, že Vel pred ostatnými skrývala dôležité informácie. Pod tlakom si však napokon vydobyla rešpekt.
Kategória C: Silné stránky. Ako líderka preukazuje Vel dobré vedúce a taktické zručnosti. Dokáže viesť tím a pracovať v skupine, a to aj pod tlakom, kedy ju obmedzujú riziká alebo čas. Vďaka svojmu pôvodu má prístup k dôležitým ľuďom a stále sa dokáže pohybovať v bohatom svete vysokopostavených ľudí. Dokáže tak plynulo prechádzať medzi svetom elitných politických osobností a skrývajúcich sa povstalcov. Vel dokáže prežívať emócie, avšak udržiava si odstup a kontrolu nad nimi, najmä v rizikových situáciách. Vie manipulovať so zbraňami, je fyzicky silná a schopná logického uvažovania a plánovania.
Kategória D: Dynamika rodových rolí. Vel ako veliteľka rebelov pôsobí na pozícii, ktorej väčšinou dominujú mužské postavy. Presadzuje sa vďaka svojej sile v rozhodovaní, inteligencii a odvahe. Je kompetentná vďaka svojim schopnostiam, nie prostredníctvom využívania svojej ženskosti. Jej romantický vzťah s Cintou taktiež prispieva k odchyľovaniu sa od „tradičných" ženských rolí. Vel je emocionálne dostupnejšia, ale nie nevyhnutne slabšia partnerka v tomto vzťahu. Namiesto pohodlného života so statusom získaným vďaka svojmu pôvodu si vyberá vzburu a nebezpečenstvo. Aj v tomto prípade dochádza narušeniu polemiky o „tradičných" rodových rolách.
Kategória E: Naratívny výsledok. Val čiastočne dosahuje svoj cieľ – lúpež na Aldhani sa podarila, čím uštedrila Impériu veľkú ranu. Na druhej strane ju táto akcia stála cenu v podobe životov. Okrem toho si je neistá svojou úlohou v tomto povstaní a trápia ju rodinné vzťahy. Vel je spočiatku cieľavedomou, mierne idealistickou líderkou, z ktorej sa postupne stáva morálne flexibilnejšia a emocionálne rozporuplnejšia postava.

5 ZHRNUTIE A ZÁVER

V tejto časti textu prechádzame k odpovedaniu na stanovené výskumné otázky.
VO1 V čom spočíva motivácia antihrdiniek dosiahnuť svoje ciele?
Wednesday predstavuje emocionálne chladnú osobnosť, ktorú poháňajú niekedy sebecké motivácie. Hľadá spravodlivosť, ale často uprednostňuje svoju vlastnú autonómiu a svetonázor pred empatiou alebo sociálnou súdržnosťou. Vo výsledku tak skôr vykazuje znaky antihrdinu, hoci jej nejde o pomstu. Motivácie Maury nie sú vždy jasné, ale poháňa ju zvedavosť a túžba po pravde. Napriek jej stoickému zovňajšku je jej motivácia intenzívne osobná (chce nájsť svojho brata) a emocionálna (hľadá vlastnú identitu), pričom vyviera zo smútku, viny a túžby. Prevažne tak spĺňa znaky antihrdinky. Caroline motívy sú zakorenené v snahe prežiť a ochrániť svoju skupinu ľudí, avšak často prijíma extrémne a prinajmenšom morálne pochybné opatrenia. V dôsledku svojich emocionálnych zranení sa chladne zameriava na pragmatický a niekedy bezohľadný boj o prežitie. Motivácie Vel vyplývajú z kombinácie ideologických, emocionálnych, ale aj existenciálnych cieľov. Je zásadová, no musí robiť kompromisy, klamať a dopúšťa sa aj násilia v snahe dosiahnuť to, čo si zaumienila. Carol aj Vel preberajú znaky antihrdinu aj antihrdinky. V nadväznosti na teoretickú časť práce pripomíname, že podľa Radošinskej a Magalovej (2022) sú televízne antihrdinky fyzicky zdatné profesionálky s odporom voči mužskej autorite, s čím sa úplne stotožňujeme. Autorky ale dodávajú, že tieto ženy často nehľadajú spravodlivosť, ale ide im skôr o pomstu, chamtivosť alebo potešenie. V skúmanom materiáli sme sa však stretli práve s antihrdinkami bažiacimi po pravde a spravodlivosti (čiastočne aj po pomste), nie však po potešení alebo z chamtivých dôvodov.

VO2 Ako emocionálne pôsobia antihrdinky na svoje okolie?
Wednesday okolo svojej osobnosti vytvára auru tajomnosti a odstupu. Svoju odmeranosť často využíva ako súčasť svojho vplyvu a nerešpektovaním étosu narúša spoločenské normy. Aj Maura si vytvára personu tajomnej a kompetentnej osoby, hoci ju prenasledujú nejasné

spomienky. V dôsledku zlej komunikácie a niekoľkých rozhodnutí ju jej okolie podozrieva. Wednesday a Maura preukazujú skôr znaky charizmy, čím sa približujú k antihrdinom. Carol starostlivo upravuje svoju osobnosť – ak jej to vyhovuje, dokáže predstierať „miernu ženu“, ale v momente, kedy si to situácia vyžaduje, robí ťažké, ale logické rozhodnutia. Buduje si tak rešpekt aj u nepriateľov a vytvára o sebe obraz nepredvídateľnej postavy. Vel je silná a schopná líderka partizánskej skupiny, ktorá si dokáže vynútiť rešpekt. Jej emocionálna komplexnosť ju odlišuje od iných idealistických rebeliek. Carol a Vel možno priznať len jeden z uvedených znakov typických pre antihrdinky – sú nebezpečné. Namiesto zvodnosti využívajú svoje racionálne a taktické schopnosti, a namiesto nestabilnosti môžeme najmä Carol priznať nepredvídateľnosť. Mimochodom, názor Mittella (2019), že antihrdinky bývajú buď sympatické, ale tvrdohlavé a problémové, alebo sú vykreslené komediálnym spôsobom, do istej miery platí. V analyzovaných dielach sme sa totiž stretli práve so sympatickými a problémovými postavami tohto typu.

VO3 V čom sa prejavujú silné stránky antihrdiniek?

Wednesday je silná vo svojej osobnej vôli, intelekte a odmietnutí prispôsobiť sa spoločenským očakávaniam. Preberá kontrolu nad vyšetrovaniami, spochybňuje autority, pýta sa nepríjemné otázky a svoje slabosti (ako napríklad to, že je vyvrheľom) šikovne premieňa na výhody. Maurina moc sa viaže na jej pamäť, inteligenciu, psychológiu. Vo výsledku zisťuje, že sa stáva kľúčovou osobnosťou k vyriešeniu tajomných udalostí, ktoré sužujú ju aj jej okolie. Carol aktívne využíva stereotyp o „dobrej matke“, aby vzápätí prekvapila nepriateľov svojou chladnou rozhodnosťou. Dokáže robiť ťažké rozhodnutia a držať si emocionálny odstup. Moc Vel spočíva v jej pôvode, ktorý jej umožňuje udržiavať si kontakty s elitnými politikmi. Na druhej strane jej sila pramení aj v schopnosti vzdať sa tohto pohodlného života a pridať sa na stranu rebelov. Všetky vlastnosti týchto postáv sú syntézou mužského (schopné násilia, dominantné svojím intelektom, hoci – s výnimkou Vel a Carol – nedisponujú veľmi veľkou fyzickou silou) a ženského antihrdinstva (najmä emocionálna sila a schopnosť manipulovať).

VO4 Ako sa prejavuje prítomnosť rodových rolí a spoločenských očakávaní?

Wednesday aktívne spochybňuje rodové normy tým, že stelesňuje emocionálne chladnú, intelektuálne dominantnú a spoločensky transgresívnu postavu. Nezaujíma sa o romantické vzťahy, ktoré sú postavám v jej veku v dielach stereotypne prideľované. Maura je klasická antihrdinka v tom, že namiesto „tradičnej“ ženskosti, materstva a emocionality si vyberá autonómiu, intelekt a kontrolu nad svojím životom. Carol premieňa „tradičnú“ ženskosť ako nástroj na nečakaný útok a používa ju na odzbrojenie priateľov aj nepriateľov. Zvláštnosť a výnimočnosť Carol spočíva aj v tom, že má okolo 45 rokov, výraznejšie vrásky a šedivé vlasy. To nie je pre ženské postavy typické. Vo Vel sa spája ako aristokratická ženskosť, tak aj militantná mužskosť. Prepájanie týchto dvoch oblastí vytvára priestor pre budovanie komplexnej postavy bez akejkoľvek lojality k rodovým normám. Ani jedna z uvedených postáv tak neposilňuje „tradičnú“ ženskosť, ale podkopáva rodové roly a očakávania spoločnosti. To platí aj o Carol, ktorá však využíva svoju „fasádu“ starostlivej matky, aby pôsobila nenápadne a dosiahla svoje ciele.

VO5 Do akej miery sa antihrdinkám podarilo naplniť svoje ciele?

Wednesday napokon rozuzlila záhadu, ktorá trápila ju aj jej rodičov. Proces, ako k jej vyriešeniu dospela, ju formuje najmä po emocionálnej stránke, keď napríklad prehodnocuje úlohu priateľstva. Maura nedosahuje vykúpenie ani vyriešenie problému, avšak výsledkom je prehĺbenie komplexnosti jej postavy. Predstavuje modernú antihrdinku, ktorá je emocionálne uzavretá, intelektuálne dominantná, morálne nejednoznačná, pričom vo výsledku je možno viac zodpovedná za konflikt príbehu, ako sa na prvý pohľad zdalo. Carol dosahuje svoje ciele spôsobmi, ktoré jej emocionálne ubližujú. Mnoho problémov dokáže vyriešiť vďaka svojej vynaliezavosti, pričom všetko robí za cenu prežitia a v záujme spravodlivosti. Stojí na hranici medzi ochrankyňou a katom, pričom v závere sa uchyľuje skôr k pokojnejšej pozícii na pozadí celého diania. Vel sa podarí viesť skupinu rebelov pri lúpeži na planéte Aldhani, avšak jej príbeh ešte nekončí. Hoci dosiahla uvedený úspech, jej osobnostné vnútorné naplnenie ostáva nedosiahnuteľné. Všetky postavy predstavujú ženské antihrdinstvo, ktoré nie je hanobené ani potrestané, ale skôr nepredvídateľné. Na konci príbehu sa im podarí prežiť, pričom sú emocionálne zrelšie.

Antihrdinstvo predstavuje v súčasnosti najobľúbenejšiu formu charakteru postáv, ktorá, najmä v televíznej dráme, dokáže udržať pozornosť a vysokú úroveň záujmu o prebiehajúci dej. Za zaujímavé považujeme, že štyri aktuálne najsledovanejšie televízne drámy zobrazujú niekoľko zaujímavých antihrdiniek kľúčových pre vývoj deja. Aj to svedčí o súčasnej popularite tohto typu postáv. Súhlasíme s tvrdením Malíčka (2008), že všetky súčasné postavy v popkultúre možno definovať ako antihrdinské. Pri analýze výskumného materiálu sme totiž len ledva natrafili na „čistého“ hrdinu alebo hrdinku.
Prostredníctvom analýzy sme zistili, že antihrdinky do istej miery vykazujú vlastnosti typické aj pre antihrdinov. Je dôležité poznamenať, že či už šlo o Wednesday, Mauru, Carol alebo Vel, všetky sú stvárnené mimoriadne komplexne. Pri analyzovanom materiáli bolo motiváciou ženských antihrdiniek vyrovnávanie sa s traumou, snaha o prežitie či hľadanie identity (typické pre antihrdinky), ale aj dosahovanie spravodlivosti či pomsty (typické pre antihrdinov). Analyzované postavy pôsobili nebezpečne, avšak nevykazovali nestabilnosť alebo zvodnosť (typické pre antihrdinky). Namiesto toho pôsobili tajomne, niekedy podozrivo, odmerane a chladne. Ich sila často spočívala v manipulácii a emocionalite (typické pre antihrdinky), ktorú však dokázali potlačovať na dosiahnutie svojich cieľov. Do istej miery však preukazovali aj vlastnosti ako fyzická sila a boli najmä schopné násilia (typické pre antihrdinov). Len v jednom z prípadov došlo k zneužívaniu ženskosti na dosahovanie osobných cieľov, a to vtedy, keď sa Carol schovávala za masku materskej postavy. V skutočnosti všetky analyzované postavy podkopávali rodové roly, nezosobňovali „tradičné“ ženské vlastnosti a ani sa neriadili spoločenskými normami. Hoci antihrdinky bývajú častejšie potrestané a vysluhujú si označenie „abnormálna“, v prípade analyzovaných diel to neplatilo. Skúmané postavy prežili až do konca, pričom sa im podarilo (čiastočne) dosiahnuť ich cieľ, avšak v procese emocionálne dozrievali. Porovnanie jednotlivých vlastností uvádzame v tabuľke 2.

Tabuľka 2 Porovnanie vlastností jednotlivých postáv

Problematika	Wednesday	Maura	Carol	Vel
Motivácia	Dosiahnutie spravodlivosti	Hľadanie strateného brata, identity a pravdy	Ochrana svojej skupiny, prežitie	Revolúcia, spravodlivosť, hľadanie identity
Emocionalita	Emocionálne chladná, drží si odstup, zastrašujúca	Emocionálne chladná, tajomná, nespoľahlivá, no intelektuálne schopná	Pomyselný chameleón: je materskou figúrou a zároveň katom	Kompetentná líderka schopná emocionálneho prežívania
Silné stránky	Inteligentná, odvážna, emocionálna nedostupnosť, racionálna dominancia	Emocionálna sila prostredníctvom manipulácie	Emocionálna kontrola, nenápadnosť, strategické násilie	Taktická, logicky uvažuje, má kontakty s elitami
Dynamika rodových rolí	Odmieta tradičné ženské správanie, je emocionálne zdržanlivá	Spochybňuje normy 19. storočia týkajúce sa ženskosti, materstva a autority, intelektuálka	Zneužíva svoju ženskosť ako nástroj, používa rodové stereotypy ako kamufláž	Odmieta očakávania spojené s jej postavením, vyberá si nebezpečenstvo
Naratívny výsledok	Dosahuje svoj cieľ vďaka svojim schopnostiam, emocionálne rastie	Napokon spoznáva pravdu, avšak nenadobúda slobodu	Mnoho jej blízkych zomrelo. Ovplyvňuje svoje okolie, ale jej skutky ju vnútorne trápia	V útoku takticky uspeje, ale zostáva emocionálne a ideologicky rozpoltená

Zdroj: Vlastné spracovanie (2025)

Hlavným cieľom tohto textu bolo priblížiť, akými spôsobmi sú prezentované ženské antihrdinky v súčasnej epizodickej televíznej tvorbe. V rámci teoretickej časti sme sa zamerali na priblíženie antihrdinstva a porovnania antihrdiniek a antihrdinov. V empirickej časti bolo našou snahou preskúmať prostredníctvom diskurzívnej a naratívnej analýzy štyri nasledovanejšie televízne drámy za aktuálne obdobie. V zhrnutí sme odpovedali na výskumné otázky a nadobudnuté výsledky sme porovnali s teoretickými východiskami. Konkrétne sme porovnali vlastnosti pripisované antihrdinom a antihrdinkám v tabuľke 1 s vlastnosťami antihrdiniek v aktuálne najsledovanejších televíznych drámach. Týmto spôsobom sme chceli predostrieť lepšiu predstavu o spôsobe vyobrazenia ženských antihrdiniek v súčasnej televíznej tvorbe určenej pre globálne publiká. Tento text umožňuje pochopiť, akým spôsobom sú prezentované, čo vo výsledku prispieva k lepšiemu pochopeniu ich významu v dnešnej mediálnej kultúre. Vzhľadom na charakter výskumu nemožno nadobudnuté výsledky generalizovať. Hlbšie pochopenie problematiky by si vyžadovalo ďalší výskum napríklad formou kvantitatívnej obsahovej analýzy, ktorý by bol doplnený o ďalšie kvalitatívne výskumy.

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THE PHENOMENON OF THE INFLUENCE OF ANIMATED FILM ON THE CREATIVE PROCESS OF SECONDARY SCHOOL OF APPLIED ARTS STUDENTS

Sonia Gallo

Abstract
The paper focuses on the phenomenon of how students of secondary art schools specializing in animation perceive animated films. In addition to an empirical component, it includes a theoretical framework that situates the topic within the broader context of visual culture. Data were collected using a questionnaire as a structured tool to gather information on the frequency of watching animated films, preferred genres, and thematic and visual preferences. The questionnaire predominantly consisted of closed-ended questions, complemented by a few semi-open items. The results reveal the thematic and visual preferences of this group, which approaches animated film not only as a form of leisure but also as an area of professional interest, thus providing relevant insights into factors influencing creative thinking, the development of individual artistic style, and visual literacy.
Keywords: *animated film, animated creation, visual preferences, thematic preferences*

1 INTRODUCTION

Visual culture has undergone a significant transformation in recent decades, influencing the ways in which individuals perceive, interpret, and create visual content. Due to the rapid development of digital technologies and multimedia platforms, the image has become a key instrument of communication - conveying not only information but also emotions, attitudes, and value frameworks. According to Šupšáková (2010), today's image is no longer merely a reflection of reality but a construction of meanings that shape our everyday perception of the world. In this context, animated film stands out as a prominent element of visual culture, combining artistry, motion, narrative storytelling, and sound in a unique multimodal form. As a medium, animation can engage audiences across age groups, both thematically and aesthetically, and its visual expressiveness shapes individual and collective imaginative abilities. Contemporary secondary school students in the arts industry, as a highly media-engaged generation, may respond to this visual experience in their own creative work. Their drawings, paintings, or digital illustrations may exhibit features inspired by animated film - not only in terms of stylistic choices but also in the selection of themes, colors, composition, or atmosphere.

In *Art as Experience* (1934), Dewey views art not as an isolated phenomenon but as an integral part of everyday life. According to him, artistic expression arises when an intense experience takes on a concrete form. In the context of students producing animation, this model can be applied to the process in which the viewing experience of an animated film evokes response that is subsequently translated into artistic work - often reflected in the choice of themes, stylistic features, or visual symbols. Within art education, where visual language is taught not only for analysis but also for production, animated film represents a significant formative element of visual thinking. This paper focuses on capturing this dynamic - specifically, which thematic and visual elements of animated film students find inspiring.

2 VISUAL LANGUAGE

Visual language – as well as verbal language - emerges from the fundamental human need to share experiences and navigate a shared world. Interpersonal communication relies on a combination of verbal and non-verbal signals; on their own, each is insufficient, but together they can convey a precise meaning. Visual language should not be understood as a mere "supplement" to verbal language; it is an equally valid language with its own signs, grammar, and culturally conditioned syntax, forming the foundation of artistic expression. Similarly to verbal language, where vowels, syllables, words, and sentences constitute hierarchical units of meaning, visual expression operates through a hierarchy of structural and expressive elements. Visual language employs line, shape, spot, surface, color, and material as communicative tools, each governed by relatively stable rules of use and interpretation. When these "visual letters" are combined into meaningful wholes, they form an image that can be read and interpreted. The result is a narrative visual construct - the equivalent of a textual sentence - capable of conveying a complex message without a single spoken syllable. Over time, this visual language develops in a manner analogous to verbal speech: through education and practice, it acquires precision, nuance, and the capacity for abstraction, eventually evolving into an artistic visual language.

Each historical era cultivates its own rules for creating and interpreting visual signs, reflecting its value system, technical possibilities, and social context. Therefore, the cultivation of visual language is essential: it teaches viewers to look consciously, to understand the context in which a sign arises, and to interpret it critically. Only in this way can a passive observer become an active reader of visual texts and an autonomous creator of original expressions, capable of flexibly connecting visual and verbal modes of communication (Valachová, 2024).

According to Wells (1998), the visual language of animated film consists of the set of artistic and expressive means through which story, emotion, and meaning are conveyed. It encompasses characteristic visual elements such as the form and structure of characters, colors and color contrasts, the style and technique of motion animation, scene composition, the use of light and shadow, as well as symbolic and metaphorical elements that create a unique atmosphere and reinforce thematic expression. In animated film, visual language often does not imitate reality but simplifies, distorts, or exaggerates it, enabling a more expressive and artistic form of communication.

2.1 Visual preferences and thematic content

Visual preferences can be understood as a set of visual elements and qualities that viewers perceive as aesthetically appealing, emotionally engaging, or otherwise attractive. In the context of animated film, they constitute one of the determining factors influencing viewers ' decisions about what to watch. Visual preferences reflect not only individual taste but also broader cultural, aesthetic, and generational contexts. Alongside visual preferences, thematic content plays an equally important role. These are the meaningful motifs, ideas, or symbolic frameworks that an animated film conveys. Such content is often culturally and contextually grounded, serving as a key carrier of the work's expressive value. Empirical research on Chinese animated production, employing FAHP models (*Analytic Hierarchy Process* - a decision-making method used to determine the importance of various criteria in selection or evaluation) and GRA (*Grey Relational Analysis* - a component of *grey system theory* suitable for systems with incomplete or imprecise data), identified several key visual preferences that audiences rated as decisive in their choice of film: visually appealing characters, dynamic and engaging animation, realistic effects, and overall quality of visual execution. These elements do not operate in isolation; they significantly intersect with viewer' narrative preferences, such as clarity of storytelling and the plausibility of the plot. This suggests that visual preferences are not merely an aesthetic category but a complex indicator of audience expectations, linking visual quality with emotional experience and comprehensible expression. For creators of animated film, visual preferences represent an important tool for intentionally shaping the visual language of their work to align with the expectations of their target audience while responding to contemporary cultural contexts (Jiang, 2024).

3 ANIMATED FILM AS A TOOL OF VISUAL EDUCATION

The systematic analysis conducted by Praveen and Srinivasan (2022) highlights the significant impact of animated visual stimuli on attention and cognitive processing across a wide age range, from preschool children to adults. Based on an examination of 35 studies published between 2015 and 2021, the authors identify key factors that influence visual perception and participant engagement in various contexts, including education, advertising, and the entertainment industry. The findings indicate that the motion of animation and the expressiveness of animated characters exert a substantial effect on selective attention, emotional processing, and the memorability of presented information, whereas colourfulness and light intensity play a comparatively less prominent role. Visually stylised and rhythmically structured animated elements can activate brain regions associated with visual imagination and emotional experience, making animation a particularly powerful tool within the educational process. These insights are especially relevant to the field of arts education, where animated film may serve not only as a source of inspiration but also as a means of developing visual literacy, aesthetic perception, and creative imagination. From the perspective of pedagogical practice, animation has the potential to sustain students' attention for longer periods than traditional static stimuli, thereby effectively supporting not only memorisation but also deeper cognitive integration of content. Within the teaching of art-related subjects, animated film thus represents a multimodal medium that interconnects image, movement, rhythm, sound, and layered meaning into a coherent structure in which skills such as visual analysis, interpretative thinking, and symbolic understanding can be cultivated.

The findings on the influence of animated visual stimuli on attention and cognitive processing are further complemented by an *eye-tracking* study by Takacs and Bus (2016), which compares children's perception during the viewing of animated versus static story illustrations. The authors found that animated sequences significantly increase children's attention while simultaneously enhancing narrative comprehension. Motion within animated stories helps guide attention to relevant parts of the image, directly affecting the quality of information processing. This effect is particularly important in the context of visual education, where attention to detail and the ability to decode visual information are considered essential skills.

Furthermore, a systematic review of *eye-tracking* studies in the field of multimedia learning conducted by Çoşkun and Cagiltay (2022) can be included in this context. The authors collected and analysed the available literature, thereby providing a comprehensive overview of the advantages of employing eye-tracking technology to investigate the interaction between users and multimedia content. This method enables detailed mapping of visual attention and cognitive processes, which is particularly valuable for research on animated film as an educational tool. Eye-tracking offers both quantitative and qualitative data that reveal how individual multimedia elements - such as animation, colour, shape, or movement - influence learning, comprehension, and long-term retention. The authors also emphasise that this methodology allows researchers to monitor visual engagement in real time, which is crucial for evaluating the effectiveness of visual and multimodal stimuli in educational environments. In addition to supporting the optimisation of didactic strategies, such research provides insights into the mechanisms of visual processing that are essential when designing visually demanding learning materials. In the context of art and creative education, this type of analysis may serve as a key tool for uncovering relationships between visual stimulation and creative response. These findings also open space for further scholarly reflection on the possibilities of purposefully modifying animated elements to enhance learning effectiveness, aesthetic perception, and artistic expression. Moreover, findings of this nature contribute to understanding age-specific and culturally conditioned differences in visual attention and the processing of animation. Finally, one may also consider the potential for integrating *eye-tracking* with other neuroscientific approaches, which would allow for a deeper exploration of the links between visual perception and creative expression.

Animated film thus emerges not only as an effective educational tool but also as a potential means of developing critical visual thinking and aesthetic sensitivity within art education. The nature of creativity is shaped most significantly by the school and family environment. Owing to their long-term relationship with students, educators are able to observe individual needs, create supportive environments, and work with innate creativity by activating it through educational approaches. Motivation, in the hands of a teacher, may take various forms - knowledge of art, stimulating conversation, the presence of new media, and other types of support (Bergerová, 2024). These research findings form the theoretical foundation of our study, which examines the assumption that animated film may influence the thematic and visual preferences of secondary-school students in the field of art and creative industries. The investigation focuses particularly on how the stylisation and multimodality of animation shape visual perception, attention, and the ability to engage in artistic interpretation.

3.1 Stylisation, expression and symbolism

Stylisation represents a deliberate artistic intervention into reality with the aim of achieving a distinct visual, emotional, or symbolic effect. In visual and film art, it refers to the transformation of real shapes, colours, or movements into simplified, abstracted, or exaggerated forms derived from the artist's creative vision or expressive intent. In animated film, stylisation is a key expressive component: it influences not only the visual dimension but also the way in which viewers perceive the narrative, characters, and emotions. Unlike live-action film which often relies on a naturalistic portrayal of the world, animation enables creators to manipulate reality freely and construct fictional worlds governed by their own internal rules. This principle of stylisation is evident in classical 2D animation and has become increasingly prominent in contemporary 3D animation, where it serves as an alternative to photorealistic approaches (Boulos, 2016).

Stylisation manifests in animated film through several components:
in the shapes and proportions of characters (e.g., caricatured heads, elongated limbs),
– in linework and drawing style (e.g., pronounced contours, flat colour areas),
– in movement (e.g., expressive gestures, exaggerated dynamics),
– and in the treatment of colour and light, which need not follow the rules of physical reality but instead communicate inner states of characters or the atmosphere of a setting. According to Bérnard et al. (2013), artists pursue stylisation through non-photorealistic rendering (NPR), a set of visual techniques that deliberately depart from realism in favour of artistic expression. Stylisation also plays an essential role in shaping the visual identity of the work and in forming the artistic self-identification of young creators. In the pedagogical context, animated film provides space for experimentation, personal expression, and creative interpretation of reality. Experts in visual art emphasise that stylisation enables animation to convey ideas, emotions, and symbols in ways that would be unattainable within a strictly realistic medium. A notable example is the work of *Hayao Miyazaki* (e.g., *Spirited Away, My Neighbor Totoro*), in which characters and environments are intentionally deformed, idealised, or dreamlike, giving rise to a unique poetic world that affects the viewer not through realism but through atmosphere, metaphor, and an internal expressive logic. This dimension is further expanded by Bergerová (2021), who highlights expression as an inseparable component of artistic creation, closely linked to emotional experience and personal revelation. Expressive production carries intensity, symbolism, and subjective meaning, naturally aligning with the stylised visual language of animation. In animation particularly in works such as Miyazaki's - the fusion of stylisation and expression becomes

especially evident: dreamlike characters, atmospheric environments, and visual metaphors create space for poetic, emotional, and deeply personal statements. Both perspectives—the artistic-technical (NPR stylisation) and the psychological-communicative (expression)—thus converge in animated film as a medium that allows young creators not only to express themselves formally but also to articulate personal truth through art.
Within the context of art education at secondary schools of the creative and applied arts, analytical and creative work with animation can cultivate the ability to visually articulate emotion, thought, or attitude. The expressive dimension of animated film thereby contributes not only to the development of visual language but also to the formation of a young artist's overall creative identity.
According to Sansanwal (2014), symbolic play in early childhood significantly supports the development of cognitive and affective processes that later manifest in capacities for divergent thinking, imagination, and narrative reasoning. Through symbolic play, children enter fictional worlds, flexibly manipulate the meanings of objects and roles, and develop the ability to combine mental representations into new, original wholes. These abilities constitute a developmental foundation for later artistic activities, including visual and film expression. Animated film - characterised by a high degree of stylisation, metaphor, and expressive abbreviation - can be interpreted as a developmental extension of symbolic play. Artistic elements typical of animation, such as the deformation of reality, subjective colouring, or schematic depiction of characters, often correspond to the imaginative approach to reality inherent in children's play. This analogy between symbolic play and the stylistic features of animated film provides a compelling argument for incorporating narrative, fictional, and symbolic elements into art education as a natural space for the development of creative expression.

4 METHODOLOGY OF THE STUDY, DATA COLLECTION AND SAMPLE SELECTION

For the purposes of this contribution, relevant sections of a structured questionnaire survey were selected, serving as the basis for the analysis presented in the following parts. Data collection was carried out through an original online questionnaire specifically designed for the needs of the study in November and December 2025. The questionnaire focused on the preferences and perception of animated film among students of animation at secondary schools of artistic industries in Slovakia.
The questionnaire was conceived as a structured instrument combining predominantly closed-ended items with several semi-open questions that allowed participants to briefly elaborate on their own views. It was divided into five sections: I. Basic Information, II. Viewing of Animated Films (frequency), III. Thematic and Genre Preferences, IV. Visual and Stylistic Preferences, and V. Reflection. For this contribution, only those questionnaire items related to the potential influence of thematic and visual stimuli in animated film were analysed.
The questionnaire represents a structured research tool intended for the systematic collection of data from a larger number of participants in order to obtain objective information on the investigated issue. Its characteristic feature is a precisely defined structure of predominantly closed-ended questions allowing for selected responses, complemented by several semi-open items that partially expand the expressive possibilities of participants (Švec, 1998). Pilot testing on a small sample (10 - 15 participants) was conducted to verify the reliability and validity of the questionnaire. Based on the results of the pilot test, selected items were revised to allow multiple responses. This adjustment responded to the finding that participants were unable to adequately express their experience by selecting a single option in questions concerning genre, thematic, or visual preferences.

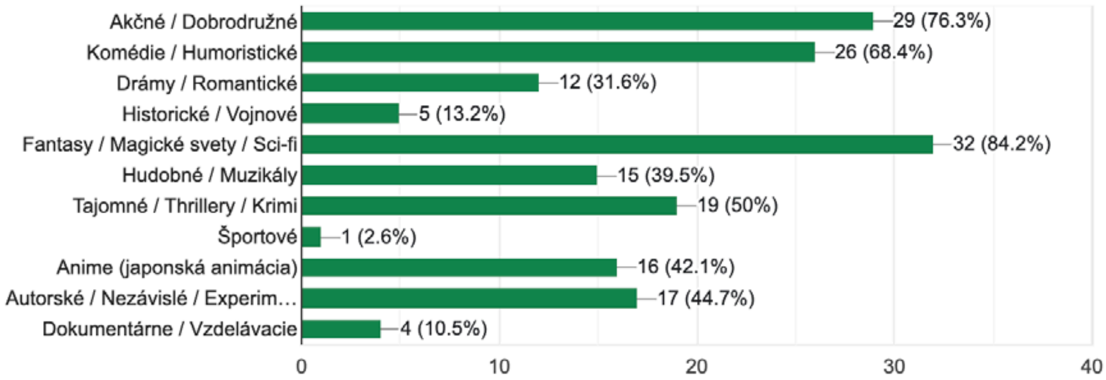
The study involved students of secondary schools of the artistic industry (1st - 4th year) and higher vocational studies (1st - 3rd year) with a focus on animated production. Participant selection was conducted using quota sampling according to variables relevant to the research, such as age, year of study, region, field of study, and school type (public or private). This approach ensured representation of different groups within the population and increased the representativeness of the collected data, although the sample was not random (Gavora, 2010). All secondary schools of the artistic industry in Slovakia offering study programmes in animation (or its related specialisations) were contacted for participation in the data collection. In total, seven schools were included; however, despite repeated contact via email and telephone, several schools declined to participate. This situation directly affected the final sample size, as the questionnaire reached only those schools willing to take part in the study.

5. RESULTS

A total of 38 participants took part in the study, of whom 31 were students from schools in the Bratislava region and 7 from schools in the Košice region. The age distribution was as follows: 15 years - 2 participants, 16 years - 2, 17 years - 11, 18 years - 4, 19 years - 4, 20 years - 5, 21 years - 6, and the category 22 years and older - 4 participants. The most common language in which participants watched animated films was English, reported by 97.4% of respondents. This was followed by Slovak (55.3%) and Czech (47.4%).
In the item concerning the preferred type or genre of animated films, participants were allowed to select multiple options. The most frequently chosen genre was fantasy / magical worlds / sci-fi, selected by 32 participants (84.2%). The second most preferred category consisted of action / adventure animated films, selected by 29 participants (76.3%). The least represented response category was sports-related animated films, indicated by only one participant (2.6%). These results suggest that, within the examined group, participants tend to prefer genres offering the greatest space for imagination, creativity, and visual experimentation.

Graph 1. Preferences for types / genres in animated films

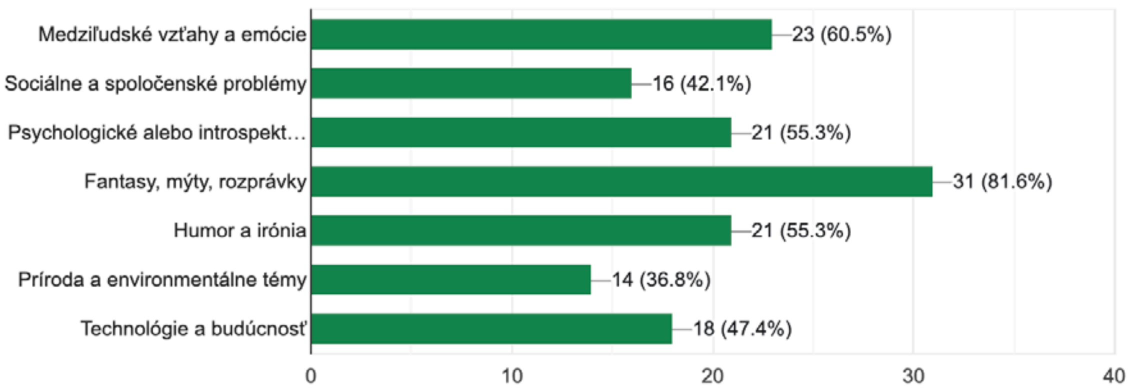
Note. The figure is presented in the original Slovak version. For English readers, the categories are listed in order from top to bottom: action / adventure, comedy / humorous, drama / romantic, historical / war, fantasy / magical worlds, sci-fi, musical, mystery / thriller / crime, sports, anime (Japanese animation), auteur / independent / experimental, documentary / educational.



The next questionnaire item focused on thematic categories preferred by participants in animated films. The most frequently selected theme was fantasy, myths, and fairy tales, reported by 31 participants (81.6%). This result suggests that young creators are particularly drawn to imaginative worlds that allow them to expand creative imagination and step away from everyday experience. The second most frequently chosen theme consisted of interpersonal relationships and emotions, selected by 23 participants (60.5%). This preference may indicate that students gravitate toward topics related to their own lived experience - situations that are personally relevant, current, and easily relatable. In contrast, themes related to nature and environmental issues were the least represented (14 participants; 36.8%). Their lower popularity may indicate that environmental topics are not perceived as themes that directly enter their personal or school lives, and therefore do not appeal to them to the same degree as topics reflecting personal experience or emotional dilemmas.

Graph 2. Preference for themes in animated films

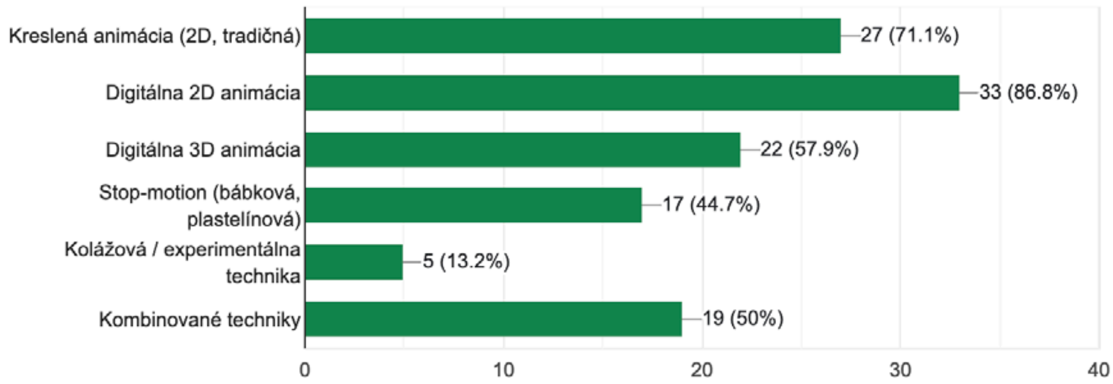
Note. The figure is presented in the original Slovak version. For English readers, the categories are listed in order from top to bottom: interpersonal relationships and emotions, social and societal issues, psychological and introspective themes, fantasy – myths – fairy tales, humor and irony, nature and environmental topics, technology and the future.



The following questionnaire item examined the participants ’preferences regarding the technical and visual execution of animated films. Given that the examined group actively works in the field of animated production, this question represents an important indicator of their creative preferences. The most preferred technique was digital 2D animation, selected by 33 participants (86.8%). This was followed by traditional hand-drawn 2D animation, chosen by 27 participants (71.1%). The least preferred technique was collage-based or experimental animation, selected by only 5 participants (13.2%). The strong preference for digital 2D animation may reflect current technological trends and the availability of software tools that enable students to efficiently realize their own projects. Traditional hand-drawn animation maintains its position, likely due to pedagogical exposure and its perceived value as a classic form of artistic expression. In contrast, the low preference for collage-based and experimental techniques may suggest that these forms are perceived as more demanding to execute or less practical for students 'everyday creative work.

Graph 3. Preferences for technical execution of animated films

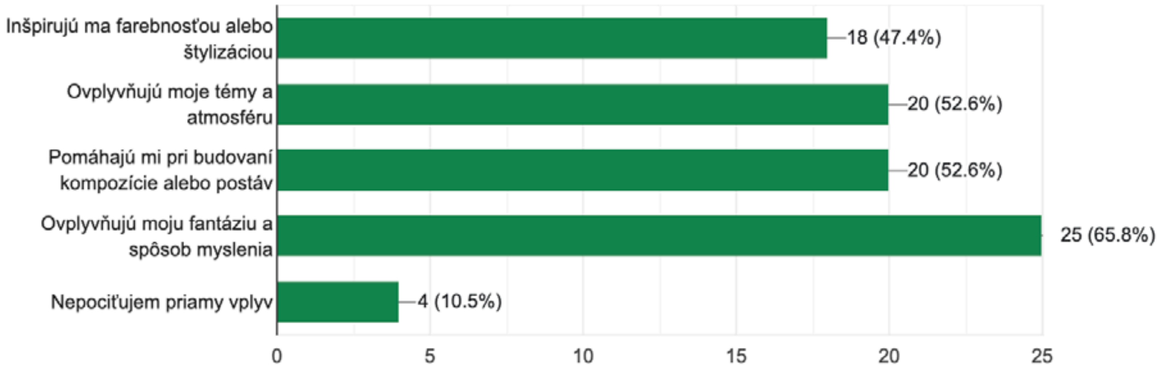
Note. The figure is presented in the original Slovak version. For English readers, the categories are listed in order from top to bottom: hand-drawn animation (2D, traditional), digital 2D animation, digital 3D animation, stop-motion (puppet, clay), collage / experimental technique, combined techniques.



The final selected questionnaire item focused on how animated films influence participants ' artistic creation. The most common response, selected by 25 participants (65.8%), was that animated films influence their imagination and ways of thinking. Two other response categories received an identical number of selections: animated films influence my themes and atmosphere and animated films help me build composition or characters, each indicated by 20 participants (52.6%). In contrast, only 4 participants (10.5%) reported not perceiving a direct influence of animated films on their artistic work. These findings suggest that animated films can affect young creators in multiple ways - they may shape not only creative imagination and thought processes, but also thematic orientation, atmosphere, compositional decisions, and stylistic work with characters. For students, animated films may function not only as a form of entertainment but also as an active tool shaping their visual thinking and thematic decision-making.

Graph 4. Influence of animated films on own artistic expression

Note. The figure is presented in the original Slovak version. For English readers, categories are listed in order from top to bottom: I am inspired by colours or stylization; they influence my themes and atmosphere; they help me with composition or character building; they influence my imagination and ways of thinking; I do not perceive a direct influence.



6 DISCUSSION

The results indicate that students of animated production strongly prefer themes that allow for imagination, fantasy, and emotional reflection, while environmental motifs are less represented. This pattern may suggest that participants gravitate toward themes that are personally relevant and easily transformable into their own creative work. The findings imply that thematic preference is closely linked to individual experience and the creative intent of young authors.

In the area of visual and technical execution, digital 2D animation is the dominant preference, followed by traditional hand-drawn animation. Experimental and collage-based techniques were less appealing, which may reflect the availability of tools, participants ʼpractical experience, and the comfort zone within their creative processes. This pattern supports the assumption that visual and technical preferences result from a combination of personal experience and the pedagogical environment.

The questionnaire item concerning the influence of animated films on participants ʼown creative work revealed that most students perceive animation as a stimulus for imagination, composition, thematic selection, and the atmosphere of their artworks. Only a small portion of respondents reported not experiencing a direct influence, underscoring the role of animated films as a medium for visual education and the development of creative thinking. Among the main limitations of the study is the small sample size, influenced by partial refusal from schools and the geographical concentration of participants predominantly in the Bratislava and Košice regions. Relying solely on a questionnaire means that the collected data are based on participants ʼsubjective reflection, without the possibility to directly verify the influence of animation on their actual creative products. Despite these limitations, the study offers insight into the relationship between thematic and visual preferences and the creative process of students of animated production.

Overall, the findings suggest that animated films function as a significant stimulus for the development of creative thinking, the formation of a personal artistic style, and the strengthening of visual literacy.

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PERCEPTION OF TIME PRESSURE AS A SOCIAL BARRIER TO JOB SATISFACTION AND THE IMPLEMENTATION OF INNOVATIONS

Filip Gerec, Mariola Liszoková, Iva Holeková, Jana Vallová

Abstract

From the perspective of social work, time pressure represents a social barrier to professional satisfaction and the implementation of innovations, not only in the school environment. Our research focuses on how secondary vocational school teachers perceive the obstacle of "lack of time" in implementing innovative teaching methods and how this perception differs according to age. The research is quantitative in nature; data were collected using a self-designed questionnaire focused on factors supporting and limiting innovation in teaching and analysed using non-parametric statistical methods. We found that age influences the subjective perception of time pressure, with moderately experienced teachers rating lack of time as a less serious obstacle than their younger and older colleagues. The findings have practical implications for social work in the school environment, particularly when planning organisational and psychosocial support for teachers with regard to their career stage.

Key words: *time pressure; lack of time; innovative teaching methods; professional satisfaction; age differences; social work; school environment*

1 THEORETICAL BACKGROUND

The perception of time pressure is one of the factors influencing teachers' professional satisfaction and represents a social barrier to the introduction of innovative teaching practices. A humanistic approach and innovation help to create a positive climate and empathy (Homolová, 2022). Managing and guiding students in the teaching process is not an easy task for teachers (Homolová, 2019). From a social work perspective, examining the working conditions and mental well-being of helping professionals is a prerequisite for protecting their mental health and ensuring the sustainability of their profession, which also applies to the teaching profession. This is also justified in situations where teachers work with children or adolescents with health disabilities, where their mental well-being is key to providing quality and inclusive education, as these children are an integral part of society, which should provide them with adequate education, healthcare and social security (Biksadská et al., 2024; Šustrová, 2014).

Time pressure is a subjectively perceived lack of time to fulfil work and personal responsibilities, leading to stress, burnout and reduced job satisfaction (Zhou et al., 2025; Maas et al., 2021; Creagh et al., 2023). Teachers often face a combination of high workloads, administrative tasks and expectations for constant professional innovation, which increases their sense of time pressure (Villarias & Cacharo, 2025; Fredeluces & Narido,, 2025; García-Hernández et al., 2022; Creagh et al., 2023). Long-term time pressure is associated with emotional exhaustion, fatigue and psychosomatic difficulties, and can even lead to considerations of leaving the profession (Maas et al., 2021; Nwoko et al., 2025; Creagh et al., 2023).

Administrative burdens and a lack of support from school management significantly contribute to the perception of time pressure and reduce teachers' professional identity and satisfaction (Villarias & Cacharo, 2025; Zhu & Zhai, 2025; García-Hernández et al., 2022; Merle et al., 2022; Hlásna , & Hužovičová, 2013a,b; Krásna, Tamášová, & Geršicová, 2017; Krásna, 2016; Krásna & Geršicová, 2017; Čepelová & Čepelová, 2023, 2025, a,b). Effective management of time pressure is conditioned not only by individual strategies, but also by

systemic support, such as relief from secondary tasks, ensuring time for cooperation and professional development (Villarias & Cacharo, 2025; Merle et al., 2022; Abildinova et al., 2024), or even examining the interdependence of people and work in a specific job activity and, conversely, examining the impact of work on people's mental development (Knošková et al., 2020; Tománek et al., 2021). Social support from colleagues and management can mitigate the negative effects of time pressure, but its effectiveness depends on the quality and relevance of the support provided (Zhou et al., 2025; Maas et al., 2021; Nwoko et al., 2025).
The perception of time pressure and its impact on professional satisfaction varies according to the age and career stage of the teacher. Younger teachers often show greater flexibility in time management and less administrative burden, while older teachers face a wider range of work and non-work commitments and a more intense feeling of overload (Villarias & Cacharo, 2025; Carvalho et al., 2021; Zheldochenko & Nikolenko, 2020; García-Hernández et al., 2022). Research shows that with increasing age and length of service, professional engagement may decline as a result of task accumulation and burnout (Villarias & Cacharo, 2025; Zheldochenko & Nikolenko, 2020; García-Hernández et al., 2022; Boukhechba, 2025). On the other hand, older teachers may show higher normative engagement, but their ability to cope with time pressure is often limited (Carvalho et al., 2021; Zheldochenko & Nikolenko, 2020).
Lack of time is the most frequently cited barrier to the implementation of new teaching methods, digital technologies or professional development (Margot & Kettler, 2019; Ennes et al., 2021; Fitzgerald et al., 2017; Abildinova et al., 2024). Teachers often prioritise routine activities over innovation when their workload is excessive (Creagh et al., 2023; Fitzgerald et al., 2017). Effective solutions include systemic changes in work organisation, reducing administrative burdens, and providing targeted support according to age and career stage (Villarias & Cacharo, 2025; Merle et al., 2022; Abildinova et al., 2024).
The perception of time pressure is therefore a complex phenomenon that significantly affects teachers' professional satisfaction and their willingness to adopt innovative approaches. Its intensity and consequences are conditioned by individual, age and organisational factors, and effective management requires a combination of individual strategies and systemic support (Villarias & Cacharo, 2025; Carvalho et al., 2021; Zheldochenko & Nikolenko, 2020; Fitzgerald et al., 2017; Zhou et al., 2025; García-Hernández et al., 2022; Merle et al., 2022; Maas et al., 2021; Creagh et al., 2023; Nwoko et al., 2025; Abildinova et al., 2024; Boukhechba, 2025).
For social work, understanding time pressure as a social barrier to professional satisfaction is particularly important when planning support interventions, supervision and counselling aimed at preventing burnout and leaving the profession. According to Halušková (2020), supervision has also proven effective in creating organised opportunities for reflection on current work issues, thus becoming one of the effective methods of professional growth.
Based on the above, the aim of this paper is to describe the perception of time pressure as a social barrier to professional satisfaction and the introduction of innovations in the work environment and to analyse, on an empirical level, age differences in the severity of the obstacle of "lack of time" in the introduction of innovative teaching methods. Table 1 provides an overview of selected research findings.

Table 1: Overview of the main factors influencing teachers' perception of time pressure and professional satisfaction.

Aspect	Impact on teachers	Source document
Time pressure	Higher stress, burnout, lower satisfaction	(Zhou et al., 2025; Maas et al., 2021; Creagh et al., 2023)
Administrative	Barrier to innovation,	(Villarias & Cacharo, 2025; Zhu & Zhai,

burden	reduced professional identity	2025; García-Hernández et al., 2022; Merle et al., 2022)
Age differences	Older teachers: higher overload	(Villarias & Cacharo, 2025; Carvalho et al., 2021; Zheldochenko & Nikolenko, 2020; García-Hernández et al., 2022)
Social support	Mitigates the negative effects of time pressure	(Zhou et al., 2025; Maas et al., 2021; Nwoko et al., 2025)
Barriers to innovation	Lack of time, preference for routine	(Margot & Kettler, 2019; Fitzgerald et al., 2017; Creagh et al., 2023; Abildinova et al., 2024)

Source: Created in the Consensus app

2 RESEARCH DESIGN AND FINDINGS

The aim of the research is to empirically analyse whether there are statistically significant differences in the perception of the severity of the barrier of "lack of time" in the implementation of innovative teaching methods among teachers of different age groups, as one of the manifestations of time pressure acting as a social barrier to professional satisfaction and the implementation of innovations.

The research is designed quantitatively with a focus on age differences in the perception of time pressure, specifically the obstacle of "lack of time" in introducing innovative teaching methods in the school environment. The research sample consisted of 118 teachers from secondary vocational schools in the Slovak Republic. The sample included teachers of vocational subjects with at least one year of teaching experience. In terms of gender, women predominated (n = 96; 81.4%). The teachers worked in various fields of study and regional locations. In terms of age, the respondents were divided into three categories≤30 years (n = 27), 31–45 years (n = 52) and >45 years (n = 39). Participation in the research was voluntary and anonymous; respondents were informed about the purpose of the research and that the data would be used exclusively for scientific purposes in accordance with the principles of research ethics. A self-designed measurement tool focused on factors supporting and limiting the introduction of innovations into teaching was used to collect data. For the purposes of this paper, we used the variable "perception of the severity of the obstacle of lack of time in introducing innovative teaching methods" from the questionnaire. Respondents rated the extent to which lack of time was an obstacle to the implementation of new teaching practices on a five-point ordinal scale (1 = not at all, 2 = slightly, 3 = moderately, 4 = quite a lot, 5 = very much). A higher score thus indicates a stronger perception of this barrier. The age of respondents was surveyed in years and then categorised into the above age groups. In the context of the theoretical framework, we perceive the variable "lack of time" as one of the manifestations of time pressure, which acts as a social barrier to professional satisfaction and the introduction of innovations in the work environment. Statistical data processing was performed using SPSS software. First, a descriptive analysis was performed to determine the basic characteristics of the variables under study (frequency, median, interquartile range). When verifying the assumptions for the use of parametric tests, it was found that the variable under investigation is ordinal in nature and its distribution does not meet the conditions of normality. For this reason, the non-parametric Kruskal-Wallis test for independent samples was used to assess differences in the perception of the severity of the "lack of time" obstacle between age groups. 's level of statistical significance was set at $\alpha = 0.05$. From the perspective of social work, we perceive the variables under study – age and perceived severity of the obstacle of "lack of time" – as part of the broader framework of working conditions and psychosocial barriers for professionals working in the school environment, which may have a long-term impact on their job satisfaction, motivation and decision to remain in the profession.

H1: **There is a difference in the perception of the severity of the obstacle of "lack of time" according to the age of the respondents.**

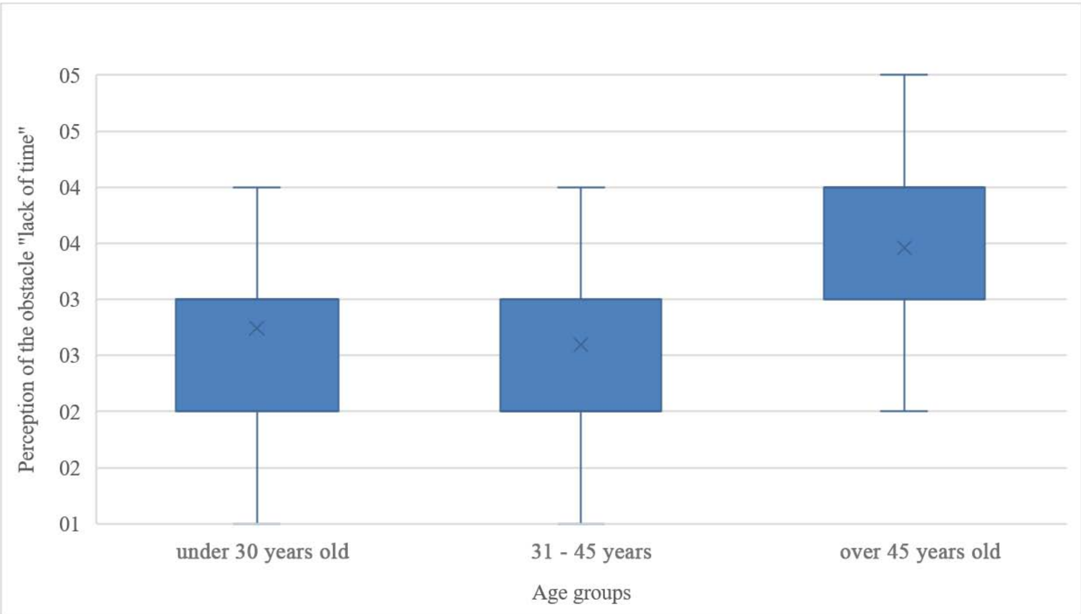
We formulated this hypothesis because "lack of time" is one of the most frequently cited barriers to the introduction of new teaching practices, and its perception may not be the same for all teachers. We are looking at age because younger teachers generally have fewer administrative duties and can be more flexible with their time, while older teachers tend to have a wider range of school and non-work commitments. We are therefore testing whether age leads to different assessments of how seriously teachers perceive the lack of time when introducing innovative methods. In this case, we also have an ordinal variable (1=not at all, 2=slightly; 3=moderately; 4=quite a lot; 5=very much). In this case, the higher the value, the greater the obstacle. The results are shown in Table 2.

Table 2: Age differences in the perception of the obstacle "lack of time"

Perception of the severity of the obstacle "lack of time"	**N**	**Mdn**	**IQR**	**H**	**df**	**p**
≤30 years	27	3.00	1.00	16.221	2	**<0.001**
31-45	52	2.00	1.00			
>45 years	39	4.00	1.00			

Explanatory notes: N – number of respondents, Mdn – median, IQR – interquartile range, H – Kruskal-Wallis test statistic, df – number of degrees of freedom, p – p-value

Source of table: authors' own research



Graph 1: Box plot of the perception of the obstacle "lack of time" by age category

Source of graph: authors' own research

The Kruskal-Wallis test showed a statistically significant difference in the perception of the severity of lack of time between age groups (H = 16.221; df = 2; p < 0.001). The lowest burden was felt by respondents aged 31–45 (Mdn = 2.00), while the group over 45 perceived this obstacle as the most serious (Mdn = 4.00). Age significantly influences how teachers perceive the lack of time – older teachers perceive this obstacle as more serious.

3 DISCUSSION

The results of our research clearly show that age significantly influences how teachers perceive the severity of lack of time when implementing innovative teaching methods. The Kruskal-Wallis test showed statistically significant differences between age groups, with respondents aged 31–45 feeling the lowest burden and those over 45 feeling the highest. These findings confirm that older teachers perceive lack of time as a more serious obstacle to innovation. Similar trends have been identified in several empirical studies. In a quantitative study of teachers of different age groups (N = 148, aged 20–63), Zheldochenko and Nikolenko (2020) found that with increasing age and length of practice, the perception of time and its importance in professional life changes. Using the Kruskal-Wallis test, they demonstrated statistically significant differences in several factors of time perspective between age groups. Older teachers showed a higher degree of "fatalistic present" perception, which is associated with a feeling of limited opportunities to influence their time and working conditions (Zheldochenko & Nikolenko, 2020). These results are consistent with our findings that older teachers perceive the time barrier more intensely. Another large-scale quantitative study from Greece (N = 3447, average age 41.2 years) showed that younger teachers and women experience higher levels of stress caused by lack of time and other work factors. Conversely, with increasing age and experience, the level of perceived stress decreases (Kourmousi & Alexopoulos, 2016). This result is partly at odds with our findings, where middle-aged teachers felt the lowest stress, while the oldest group perceived lack of time as the most serious obstacle. A possible explanation is that at a certain stage of their career (middle age), teachers achieve an optimal balance between experience, effective time management and work responsibilities, while in the later stages of their career, additional commitments and fatigue accumulate. Research from Turkey (Akin et al., 2025) confirms that the level of 'time poverty' varies significantly according to gender and length of service, with teachers with longer service (often older) reporting higher levels of perceived time poverty (Akin et al., 2025). Similarly, Alghamdi and Sideridis (2025) found in a study of 703 teachers in Saudi Arabia that older teachers and teachers with longer experience have higher levels of burnout, with one of the main causes being a lack of time for teaching and innovative activities (Alghamdi & Sideridis, 2025). These findings directly support our results on higher stress levels in the oldest age group. On the other hand, some studies point out that younger teachers may be more vulnerable to work stress, especially if they do not have sufficiently developed coping strategies or support (Waga et al., 2024). However, in the context of innovation and the implementation of new methods, it appears that older teachers face a greater number of administrative and non-work commitments, which increases their perceived time pressure (Zheldochenko & Nikolenko, 2020; Alghamdi & Sideridis, 2025; Villarias & Cacharo, 2025). A synthesis of these findings suggests that the perception of time scarcity as a barrier to innovation is dynamic and depends on age, career stage, work responsibilities, and individual coping strategies. Our results, which show the lowest burden in the 31–45 age group and the highest in the over-45 age group, extend the knowledge that the time- nd barrier may not decline linearly with age but may peak later in the career due to the accumulation of responsibilities and exhaustion. From a practical point of view, these findings point to the need for differentiated interventions and support for teachers at different ages and career stages. For older teachers, it is important to reduce administrative burdens and provide flexibility and support in implementing innovations, while for younger teachers, it is appropriate to develop effective time management and stress management strategies.

4 CONCLUSION

The results of the presented research show that the perception of lack of time as an obstacle to the introduction of innovative teaching methods is not the same in all age groups of teachers. Teachers in the middle stage of their professional careers reported the lowest level of time pressure, while younger and especially older teachers perceived lack of time as a more significant barrier to innovation. Age thus appears to be a factor that contributes to the subjective experience of time pressure and the willingness to implement new approaches in teaching. From the perspective of social work in the school environment, it is essential to perceive time pressure as a social barrier to professional satisfaction, which can have a long-term impact on motivation, job satisfaction and decisions about remaining in the profession.

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SELF-EFFICACY AND SUBJECTIVELY PERCEIVED SUCCESS OF INNOVATIVE APPROACHES IN WORK WITH YOUTH

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Abstract

This paper analyses the relationship between pedagogical self-efficacy and subjectively perceived success of innovative approaches in working with youth in a school environment. It is based on the concept of self-efficacy as a psychosocial resource, which is associated in the literature with the emotional well-being and prosocial behaviour of professionals working with children and youth. In the context of pedagogy and school social work, we understand self-efficacy as a potential protective factor in creating a supportive, safe and prosocial environment at school. The aim of the research was to verify whether higher pedagogical self-efficacy is associated with a more positive subjective assessment of the success of implemented innovative methods. The research sample consisted of 118 teachers from secondary vocational schools in the Slovak Republic. The data were obtained using a self-designed questionnaire; we analysed the scale of pedagogical self-efficacy and the variable of subjectively assessed success of innovative approaches. We found a statistically significant positive relationship between self-efficacy and subjectively assessed success of innovative approaches.

Keywords: *self-efficacy, emotional well-being, prosocial behaviour, innovation, pedagogy, school social work*

1 THEORETICAL BACKGROUND

Self-efficacy is one of the psychological constructs that influence an individual's work performance, emotional stability and social behaviour. Working with individuals is an integral part of professional activity, emphasising an individual approach to analysis, understanding and subsequent problem solving and support (Štefáková, 2025). Bandura (1997) defines self-efficacy as a person's belief in their own ability to organise and carry out the activities necessary to cope with tasks and life situations. For example, in a school environment, self-efficacy is associated with a teacher's belief that they can teach effectively, motivate students, resolve conflicts and influence educational outcomes (Gavora, 2010). Teachers with higher levels of self-efficacy usually demonstrate greater inner confidence, resilience to stress, and the ability to reflect on their own practice. They feel competent to respond to challenging situations and adapt their methods to the individual needs of students (Ščasná, 2023a,b; 2024, 2025; Steele and Ščasná, 2025). Such a perception of one's own effectiveness contributes to experiencing positive emotions, satisfaction, and a sense of meaningfulness in professional activity (Schwarzer, 1992; Gavora, 2011). Self-efficacy is a certain predictor of emotional well-being, which is understood as a balance between a person's internal resources and the demands of the environment (Ryff, 1989; Dodge et al., 2012). Emotional well-being in the school environment is closely related to the subjective experience of job satisfaction, a sense of competence and the ability to maintain positive relationships within the team (Krásna et al, 2016, 2017; Uberman et al., 2021; Čepelová and Čepelová, 2023, 2025a,b; Steele, 2024; Barnová, et al., 2024; Barnová et al. 2025). Teachers who experience psychological well-being are better able to cope with stress, respond with empathy, and create a supportive climate for students and colleagues (McCallum, Price, 2010; Barnová et al., 2024). A positive climate, which is key to the social environment, can be created through a humanistic approach and innovative methods, which leads to increased mutual self-esteem, prosociality, empathy and tolerance (Homolová, 2022). To strengthen this environment and prevent problems, it is also important to develop communication and cooperation (Homolová, 2024; Stachoň, 2015). Such an environment influences the formation of prosocial behaviour, which can be characterised as voluntary, accommodating and cooperative activity aimed at the benefit of others (Čáp, Mareš, 2007). The prosocial behaviour of teachers is reflected in the way they approach pupils, in their willingness to help, listen, provide feedback and encourage collective cooperation. Research initiatives confirm that teachers with higher self-efficacy use more strategies focused on cooperation, support and positive conflict resolution. Such teachers also evaluate their work as more successful and have a greater sense of personal fulfilment, which reduces the risk of burnout and strengthens their emotional stability (Gavora, 2011; Schwarzer, Hallum, 2008). Conversely, low self-efficacy is often associated with negative emotions, feelings of incompetence and a reduced ability to maintain positive interpersonal relationships. From the perspective of not only pedagogy but also school social work, self-efficacy is one of the sources of teachers' social and emotional well-being and an important preventive factor against stress and burnout syndrome. Strengthening self-efficacy through supervision, coaching, school social work or collegial support contributes to a more stable and healthier school environment that supports not only teachers but also students and the overall quality of relationships at school (Tschannen-Moran, McMaster, 2009; McCallum, Price, 2010; Šustrová, 2014). An analysis of existing foreign research shows that higher teacher self-efficacy is associated with more frequent prosocial and cooperative behaviour in the school environment. Teachers who believe in their abilities are more likely to help, cooperate and build positive relationships with both students and colleagues (Salvo-Garrido et al., 2024; Zee, Koomen, 2016; Hajovsky et al., 2020; Jugović et al., 2025). Teachers' emotional and psychological well-being is also closely linked to self-efficacy. Teachers with higher self-efficacy report higher job satisfaction, lower burnout, and better stress management (Zee, Koomen, 2016; Wang et al., 2024; Jugović et al., 2025; Lu et al., 2024; Sun, Yin, 2025). Teachers' prosocial behaviour (e.g., willingness to help, empathy, cooperation) contributes to their own well-being and at the same time promotes a positive classroom climate and better relationships with students (Salvo-Garrido et al., 2024; Yotyodying et al., 2023; Hajovsky et al., 2020; Jennings, Greenberg, 2009). Teachers' self-efficacy and resilience directly and indirectly (through well-being) increase their prosocial behaviour (Mieres-Chacaltana et al., 2025; Salvo-Garrido et al., 2024; Jugović et al., 2025). Teachers' prosocial behaviour promotes their engagement in school partnerships and increases job satisfaction and self-esteem (Yotyodying et al., 2023). Teachers' social-emotional competencies and self-efficacy reduce the risk of burnout and promote cooperative behaviour (Jugović et al., 2025; Lu et al., 2024; Vallová and Mrváň, 2023). The above-mentioned theoretical and empirical findings from domestic and foreign publications indicate that teachers' self-efficacy is closely linked to their emotional well-being, resilience and socio-emotional competencies, which is subsequently reflected in the quality of their prosocial and cooperative behaviour. Table 1 below summarises the main relationships between these factors as described by selected empirical initiatives.

Table 1: Summary of relationships between factors

Factor	Effect on prosocial/cooperative behaviour	Source
Teacher self-efficacy	Direct positive influence	Salvo-Garrido et al., 2024; Zee, Koomen, 2016; Hajovsky et al., 2020; Jugović et al., 2025
Emotional well-	Reduces burnout, increases	Zee, Koomen, 2016; Wang et al.,

being	prosociality	2024; Jugović et al., 2025; Lu et al., 2024
Resilience	Strengthens self-efficacy and prosociality	Mieres-Chacaltana et al., 2025; Salvo-Garrido et al., 2024; Jugović et al., 2025
Social-emotional competencies	Reduces stress, promotes cooperation	Jugović et al., 2025; Lu et al., 2024

Source: Created in Consensus App

Based on the above theoretical assumptions, we assume that youth workers who perceive their pedagogical self-efficacy as higher will also subjectively evaluate their innovative approaches in youth work as more successful. The aim of the empirical part of the paper is therefore to examine the relationship between pedagogical self-efficacy and the subjectively assessed success of innovative approaches in the school environment and to interpret this relationship in the context of emotional well-being and prosocial behaviour, as described in the professional literature.

2 RESEARCH DESIGN AND FINDINGS

The aim of the research is to examine the relationship between the pedagogical self-efficacy of secondary vocational school teachers and their subjective assessment of the success of innovative approaches in working with young people in the school environment. Specifically, we verified whether higher pedagogical self-efficacy is associated with a more positive subjective assessment of the success of the innovative methods implemented.

H1: There is a statistically significant positive relationship between pedagogical self-efficacy and the subjective assessment of the success of innovative approaches in working with young people in a school environment.

The research is designed quantitatively, focusing on the relationship between pedagogical self-efficacy and the subjectively assessed success of innovative approaches in working with young people in a school environment. The research sample consisted of 118 teachers from secondary vocational schools in the Slovak Republic. The sample included teachers of vocational subjects with at least one year of teaching experience. In terms of gender, women predominated (n = 96; 81.4%). The teachers worked in various fields of study and regional locations. Participation in the research was voluntary and anonymous; respondents were informed about the purpose of the research and that the data would be used exclusively for scientific purposes in accordance with the principles of social science research ethics. A self-designed measurement tool focused on factors supporting and limiting the introduction of innovations into teaching was used to collect data. For the purposes of this research, we derived two key variables from the questionnaire:

- Pedagogical self-efficacy – an indicator expressing the extent to which respondents perceive their ability to plan and implement teaching, implement new approaches and cope with challenging situations when working with young people.
- Subjectively assessed success of innovative approaches – an indicator capturing the overall self-assessment of respondents regarding the extent to which they perceive their innovative practices in working with young people as successful and effective.

The answers to the relevant questions were recorded on a scale that allowed respondents to express their level of agreement or intensity of assessment. These answers were used to create index variables, which we interpret in accordance with the theoretical framework of self-efficacy and innovative approaches . A detailed psychometric analysis of the questionnaire is not the subject of this paper; in the following text, we focus on the relationship between the above indicators. Statistical data processing was performed using SPSS software. First, a descriptive analysis was performed to determine the basic characteristics of the variables (arithmetic mean, median, standard deviation). When verifying the assumptions for the use of parametric tests, it was found that the distribution of variables did not meet the conditions of normality and that the variables were ordinal in nature. For this reason, a non-parametric correlation analysis was used to assess the relationship between pedagogical self-efficacy and the subjectively assessed success of innovative approaches, specifically Kendall's coefficient τ_β, which is suitable for analysing relationships between ordinal variables. From the perspective of social work, we perceive these indicators as part of a broader framework of psychosocial resources for professionals working with young people in school settings.

Table 2 Relationship between pedagogical self-efficacy and subjectively assessed success of innovative approaches

	Pedagogical self-efficacy	
	τ_β	**P**
Subjective assessment of the success of innovative approaches	0.211	**0.010**

Explanatory notes: τ_β – Kendall's tau-b, p – p-value
Table source: authors' research

The results of the correlation analysis in Table 2 showed that there is a statistically significant positive relationship between pedagogical self-efficacy and the subjective assessment of the success of innovative approaches in youth work (τ_β = 0.211; p = 0.010). Higher values of the pedagogical self-efficacy indicator are associated with a higher subjective assessment of the success of innovative practices, which is consistent with theoretical and empirical findings on the link between self-efficacy and emotional well-being and more prosocial behaviour of professionals working with children and youth.

3 DISCUSSION

From our point of view, it is important to perceive self-efficacy not as a static personality trait, but as a dynamic resource that influences the way teachers approach innovation, evaluate their own work and experience workloads. From a social work perspective, we know that professional counselling, for example, is one of the effective forms of support in coping with critical situations in working life (Vallová, 2014). In an environment where innovative methods are associated with higher demands and uncertainty, self-efficacy can become a factor that determines whether a teacher perceives change as a threat or as an opportunity for professional development. In our paper, we tested the hypothesis that higher perceived self-efficacy of teachers in implementing innovative methods is associated with a higher assessment of the success of these methods. Kendall's τ_β analysis confirmed the existence of such a relationship – the τ_β coefficient reached a value of 0.211 at p = 0.010, which represents a weak to moderately strong but statistically significant positive relationship. Teachers who declare a higher degree of self-efficacy assess their innovative approaches as more successful and perceive them as a meaningful part of their own teaching practice. The meta-analysis by Klassen and Tze (2014) reports an average correlation coefficient of r = 0.28 between teachers' self-efficacy and assessed teaching effectiveness, which can be considered a moderately strong effect. The value of Kendall's coefficient τ_β = 0.211 in our research is compatible with these results, although it is a different statistical indicator. For comparison, for example, in the field of mathematics , it appears that self-efficacy significantly predicts the use of cooperative and innovative strategies, and structural models confirm the bidirectional relationship between self-efficacy and the implementation of these methods (Bora, Bunhe, 2025; Burić, Kim, 2020). Hayati et al. (2023) found a correlation of $r = 0.54$ ($p < 0.05$) between self-efficacy and creative teaching of mathematics, with creative teaching explaining 29% of the variability in self-efficacy ($r = 0.543$). These results suggest that more intensive use of innovative and creative approaches is associated with higher self-efficacy and further strengthens it. In summary, self-efficacy appears to be a significant predictor of the use of innovative, activating and cooperative methods across educational contexts (Zee, Koomen, 2016; Li et al., 2025; Pan, 2023; Burić, Kim, 2020). Teachers with higher self-efficacy also implement new approaches more often, are more resilient to obstacles and perceive greater success in innovation (Li et al., 2025; Wang, 2025; Awang et al., 2023). The perspective of teachers' professional development is also important. A meta-analysis in the field of STEM shows that professional development focused on innovative teaching methods increases teachers' self-efficacy (Zhou et al., 2023). Longitudinal research in the field of education for sustainable development (ESD) confirms that the correlation between self-efficacy and the implementation of innovative methods increases over time, especially in the case of long-term professional development (Pauw et al., 2022). These findings complement our results by showing that the relationship between self-efficacy and innovative practice is not just a momentary state, but has a developmental character. Empirical findings (Zhou et al., 2023; Pauw et al., 2022) also suggest that long-term professional development focused on innovation can strengthen self-efficacy and deepen the relationship between teachers' subjective beliefs and their actual innovative practice. These findings also correspond with the findings of Byková (2018), according to whom strong pedagogical self-efficacy, i.e. the belief in one's ability to master innovative challenges, promotes the positive acceptance and evaluation of innovative teaching practices. Teachers with high self-efficacy are characterised by a higher degree of engagement, openness to change and resilience to failure, which allows them to see innovative processes as a professional opportunity rather than a threat. The interpretation of our results is limited by several factors. Firstly, this is a cross-sectional correlation study conducted on a sample of secondary vocational school teachers, which limits the possibilities for generalisation and does not allow for generalisable conclusions to be drawn. Secondly, we use index indicators of pedagogical self-efficacy and subjectively assessed success of innovative approaches, while emotional well-being and prosocial behaviour are operationalised in our paper mainly at the level of the theoretical framework. Thirdly, the data are based on self-assessment, which may be influenced by socially desirable responses and individual response styles. These limitations need to be taken into account when interpreting the results and designing follow-up research initiatives. From a practical point of view, it therefore seems appropriate for teacher professional development systems to specifically support not only the acquisition of new methods but also the building of self-efficacy, for example through mentoring, reflective training or supervision. According to Halušková (2020), supervision is understood as a method of continuous professional development that enables reflection on work situations, improvement of work practices and, at the same time, acts as a preventive measure against burnout syndrome. Based on our findings, this is a promising direction for interventions that can contribute to supporting teachers' emotional well-being and developing a prosocial and cooperative climate in the school environment. From a social work perspective, these results are particularly valuable for school social work and multidisciplinary cooperation in schools, where the aim is not only to support educational outcomes but also to create a supportive, safe and prosocial environment for children and young people (Biksadská, 2024).

4 CONCLUSION

The research results confirmed the existence of a positive relationship between pedagogical self-efficacy and the subjectively assessed success of innovative approaches in working with young people in the school environment. Teachers who perceive their professional competence as higher also assess their innovative efforts as more successful in their own practice. These findings point to the importance of self-efficacy not as an abstract psychological category, but as a concrete psychosocial resource related to how teachers experience work demands, make decisions in stressful situations, and engage in social interactions in the school environment. From a practical perspective, they suggest the need to systematically develop teachers' self-efficacy as part of their professional growth – not only through the acquisition of new methods, but also by strengthening self-confidence, reflective abilities and readiness to cope with change. Mentoring, peer support, supervision and the creation of a safe environment in which youth workers can openly discuss innovations, share experiences and learn from their own and others' mistakes can play a role in this process. For the field of pedagogy and school social work, these findings open up space for interventions focused on psychosocial support for professionals in schools, burnout prevention, and building a culture of cooperation. In line with the professional literature, it can be assumed that strengthening self-efficacy can contribute not only to more effective performance and more stable coping with stress, but also to the promotion of emotional well-being, a prosocial climate and quality relationships between teachers, students, social workers and other members of the school team.

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ANALYSIS OF MOVEMENT ACTIVITIES FOCUSED ON WALKING IN PRESCHOOL CHILDREN

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Abstract

The article presents an analysis of walking as a key locomotor skill of preschoolers in the context of physiological development and selected neurological disorders (cerebral palsy, DCD). A survey of 324 teachers identified the most common forms of movement, dominated by walking in a circle (86, 1%) and walking on tiptoes (75, 2%). The results confirm the high importance of playful forms and musical stimulation in the development of stability and coordination. At the same time, they point to the need for wider use of uneven surfaces and orientation games in kindergarten practice. The work emphasizes individualization and a multisensory approach as a means of preventing social isolation of children with motor deficits. This article is a partial output of project IG-2024-09-PD funded by the Slovak Republic's Recovery and Resilience Plan through the Research Agency (ESG, Contract No. 09I03-03-V05-00019).

Keywords: *locomotor skills, preschool children, motor development, developmental coordination disorder, multisensory approach*

1 THEORETICAL BACKGROUND OF THE RESEARCH TOPIC

Walking is one of the basic locomotor skills and is a key component of fundamental motor skills (FMS) in preschool age (Xin et al., 2020; Wang et al., 2021). Locomotor skills (walking, running, jumping) are closely related to overall physical activity and higher levels of mild to moderate physical activity (Xin et al., 2020). Research shows that preschool-aged children naturally perform several variations of walking—normal walking, fast/slow walking, walking on a narrow surface, walking on uneven surfaces, or walking as part of obstacle courses and games. The targeted use of these forms in education and games is considered an important tool for the development of gross motor skills, balance, and coordination (Calero-Morales et al. 2023; Mehtap et al. 2024; Sutapa et al. 2021). According to Williams et al. (2019), it is crucial to focus on the muscle groups that are primarily involved in forward movement when walking – especially the plantar flexors of the ankle and the extensors of the knee and hip. For children who have already mastered independent walking, they recommend incorporating fast, performance-oriented exercises (plyometrics and ballistic training). The goal is to develop the ability to produce force quickly, not just to increase maximum force during slow movement.

Various walking conditions – changes in pace, direction, walking along a line, on a narrow board, on different surfaces, or on elevated surfaces – place a strain on dynamic balance and postural control, which develop intensively in the preschool period (Calero-Morales et al. 2023; Sutapa et al. 2021). A study by Li et al. (2025) shows that dynamic walking balance (e.g., a 10-meter walking test) improves rapidly between the ages of 3 and 6, with poorer stability potentially limiting children's participation in activities.

1.1 Locomotor deficits

Locomotor deficits in walking in preschool age represent a complex phenomenon determined by three complementary levels: neurological deficits, developmental coordination disorders, and musculoskeletal factors. Within the neurological etiology, conditions such as cerebral palsy (CP) and hereditary spastic paraparesis (HSP) dominate. These diagnoses manifest themselves as spasticity, impaired postural stability, and altered motor functions, which can be precisely measured using instrumental indices (Karibzhanova et al., 2025; Massoud et al., 2025).

Parallel to neurological findings, developmental coordination disorder (DCD) occurs, in which cardiorespiratory fitness is significantly reduced in the preschool period, although the specific movement pattern remains variable (Smith et al., 2020). A significant manifestation within this spectrum is dyspraxia, which, according to Kováčová (2023), manifests itself in practice as impaired kinesthesia and motor planning. This leads to uncoordinated movements of the upper and lower limbs when walking on a flat surface, frequent collisions with objects in the space, and deficits when walking up stairs. A typical symptom is the absence of alternation (switching) of the lower limbs, with the child using a so-called shuffling gait. The third level consists of biomechanical deviations associated with orthopedic deformities and somatic factors, especially obesity, which increases the risk of secondary musculoskeletal disorders due to increased joint moments in the pelvis, knee, and ankle (Molina-García et al. 2019). Idiopathic toe walking (ITW) has a special status, which modern analyses using deep learning and entropic indicators define as a specific motor entity with a distinctive biomechanical "signature" that differs from typical development (De Gorostegui et al. 2025).

The functional consequences of gait disorders in preschool age are multi-causal in nature, manifesting themselves in physical performance, participation, and long-term health. This extension of individual disadvantage into a broader social context corresponds with the view of Gerec (2024), who points out that the individual is an integral part of a community with multidimensional significance. Reduced endurance and faster fatigue limit children in normal peer activities such as running or jumping (Smith et al. 2020), which in turn increases the risk of social isolation and limits their full participation in the group. Biomechanical abnormalities, particularly slowed cadence and trunk oscillations, increase the energy demands of walking and the risk of falls. The resulting biomechanical stress is a common denominator in pediatric diagnoses leading to secondary deformities and chronic overload (Molina-García et al., 2019).

1.2 Comprehensive motor rehabilitation programs

Although most evidence comes from adults (e.g., Parkinson's disease), meta-analyses show that a wide range of interventions—conventional physical therapy, resistance training, treadmill walking, strategy training, dance, martial arts, Nordic walking, or balance and dual tasking exercises—can significantly improve motor symptoms, balance, and gait (Radder et al. 2020). Theoretically, this supports:

- the principle of repeated, task-specific training,
- the importance of multisensory stimulation (music, visual stimuli, rhythmic signals),
- the importance of cognitive demands (dual task) and motivation.

In the pediatric population with gait disorders (DCD, ITW), these principles are applied in a playful form – games with movement input, dance movement therapy, robot-assisted walking, or virtual reality (Karibzhanova et al., 2025). An editorial on personalized motor rehabilitation emphasizes that the combination of robotics, VR, wearable sensors, and machine learning opens up space for highly individualized programs that take into account the unique motor profile of each child (Qiu et al. 2025).

In a kindergarten environment, teachers can specifically develop walking skills by incorporating various types of movement. While teachers focus on general support for gross motor skills, special educators intervene when specific neurological or coordination deficits are identified. This is where coaching comes in, which Štefáková, Krásna, and Gerec (2025a, p. 81) see as "*a promising and innovative tool for supporting the quality of teaching, team motivation, and the development of kindergarten culture*." Special educators thus combine personalized rehabilitation with the principles of inclusion, thereby preventing the social isolation of children and supporting their full integration into the group.

2 RESEARCH METHODOLOGY

The main objective of the research was to analyze the forms, methods, and motivational factors of walking as a basic locomotor activity in preschool children in a kindergarten environment. The research focuses on identifying the most frequently performed types of walking, applied movement games, and specific procedures aimed at developing the static and dynamic stability of children.

In line with the research objective, we set the following research questions:

- Research question 1: Which types of walking are among the most frequent locomotor activities of preschool children?
- Research question 2: What forms of movement games dominate in the implementation of walking-focused activities?
- Research question 3: What exercises do teachers primarily use to stimulate stability and balance skills?
- Research question 4: Which motivational elements do respondents consider most effective in engaging children in physical activities?

The research was conducted quantitatively using a non-standardized questionnaire. The research sample consisted of 324 respondents from among teaching staff in Slovak kindergartens. We processed the data obtained using descriptive statistical methods, specifically by determining absolute and relative frequencies, and then subjected them to logical analysis and interpretation.

3 RESEARCH RESULTS AND INTERPRETATION

In this chapter, we present a detailed analysis and interpretation of the empirical data obtained, which reflect the current state and methodological procedures applied in the development of walking as a basic locomotor skill in Slovak kindergartens from the perspective of teaching staff.

Table 1 provides an overview of the frequency of individual types of walking performed as part of regular physical activities.

Table 1 Characteristics of regularly performed types of walking

Walking type	Absolute frequency	Relative frequency
Fast walking	240	74,3 %
Slow walking	236	73,1 %
Walking on tiptoes	243	75,2 %
Walking with different arm movements	173	53,6 %
Walking on the spot	125	38,7 %
Walking on different surfaces	182	56,3 %
Walking uphill or downhill	112	34,7 %
Walking with changes of direction	195	60,4 %
Walking over obstacles	229	70,9 %
Other	10	3 %

The analysis shows that specific forms of walking that develop motor skills and coordination are most commonly included in physical activities at preschool age. Walking on tiptoes is the most common (75, 2%), followed by fast walking (74, 3%) and slow walking (73, 1%). The high incidence of walking on tiptoes indicates a targeted effort to strengthen the arch of the foot and develop balance. Conversely, walking on uneven terrain (up/downhill – 34,7%) is the least frequent, which may be related to the spatial limitations of preschool facilities.

Table 2 shows the representation of specific forms of movement games in which walking is integrated.

Table 2 Use of movement games focusing on walking

Walking type	**Absolute frequency**	**Relative frequency**
Walking competitions	84	26 %
Walking along a line or on cubes	194	60,1 %
Walking with obstacles	254	78,6 %
Various types of walking in a circle	278	86,1 %
Walking with different rules	263	81,4 %
Finding a path or orientation games	105	32,5 %
Other	5	1,5%

Collective and structured forms of movement dominate gaming activities. The most popular activities are various types of walking in a circle (86,1%) and walking with predetermined rules (81,4%). These results confirm that teachers prefer activities that develop not only motor skills but also the child's attention and ability to respond to signals. Walking with obstacles (78,6%) is also significantly represented, which is key to the development of gross motor skills and dexterity.
Table 3 shows a range of exercises primarily used to stimulate stability and strengthen the lower limbs.

Table 3 Exercises to promote stability and strengthen the lower limbs

Exercise	**Absolute frequency**	**Relative frequency**
Walking on uneven terrain	199	61,8%
Walking on a marked trail	181	56,2 %
Walking in balance (on a narrow board or rope)	178	55,3 %
Exercises to strengthen the legs	253	78,6 %
Walking with regular changes in pace or movement	252	78,3%
Other	6	1,8 %

Targeted interventions focused on stability most often involve exercises to strengthen the legs (78, 6%) and walking with regular changes in pace (78,3%). It is positive that the majority of respondents also use more demanding coordination elements, such as walking on uneven terrain (61,8%) or walking in balance on a narrow surface (55,3%). These methods are key in preventing flat feet and correcting instability, which is often a side effect of developmental coordination disorders.
The factors identified as most effective in motivating children to participate in walking activities are summarized in Table 4.

Table 4 Motivational factors in physical activities

Motivational factor	**Absolute frequency**	**Relative frequency**
Interesting and entertaining games	250	77,4%
Incorporating music or singing	234	72,4%

Competitive elements	220	68,1%
Using various aids	240	74,3%
Physical activities involving group participation	134	41,5%
Other	6	1,8

In terms of motivating children to walk, interesting and entertaining games (77,4%) and the use of various aids (74,3%) appear to be the most effective. Aesthetic and rhythmic elements, specifically the use of music or singing (72,4%), also play an important role. Competitiveness (68,1%) is a strong motivator, but compared to playfulness and the variety of aids, it is slightly in the background, which corresponds to the psychological specifics of preschool age, where the need for experience dominates over performance itself.

4 DISCUSSION

Within the discussion, we confront the empirical data obtained with theoretical principles and seek answers to the research questions set.

4.1 Forms and typology of walking

The results of the first research question indicate that the most frequent locomotor activities of preschool children include walking on tiptoes (75,2%), fast walking (74,3%), and slow walking (73,1%). The dominance of walking on tiptoes and fast walking confirms the focus of pedagogical practice on stimulating locomotor skills and foot arch function at a time when the child's muscle-tendon structures are still immature. Strengthening the foot through specific locomotor activities such as walking, running, or jumping is a key component of gross motor development programs, which in turn leads to improved balance and overall motor competence (Şendil et al., 2024; Battaglia, 2019; Calero-Morales, 2023). At the same time, however, it is necessary to distinguish between pedagogically controlled toe walking and idiopathic toe walking, in which preschoolers exhibit different patterns of ankle activation and altered gait parameters due to increased coactivation of dorsal and plantar flexors (Apibantaweesakul et al., 2025; Speedtsberg et al., 2021). The relatively high incidence of obstacle crossing (70,9%) also corresponds with the finding that children aged 2–5 years actively adjust their stride length and toe height during obstacle tasks to maintain dynamic stability, while children with motor difficulties exhibit significantly greater fluctuations in their center of gravity in these situations (Yoshimoto et al., 2023; Deconinck et al., 2010).
The answer to the second research question shows that walking in a circle (86,1%) and walking with predetermined rules (81,4%) clearly dominate movement games. In structured programs, the circular arrangement serves not only as an organizational element but also as an effective means of combining social interaction and rhythmic locomotion (Battaglia et al., 2019), while in the context of so-called "circle time" also plays an important role in supporting language skills and behavior regulation (Rönnerman, 2024). Our findings thus reveal existing reserves in the use of walking as a complex tool for the development of cognitive functions in the kindergarten environment. Our findings thus reveal existing reserves in the use of walking as a comprehensive tool for the development of cognitive functions in the kindergarten environment.

4.2 Development of stability and motor stimulation

In response to the third research question, we found that kindergarten teachers primarily use exercises to strengthen the lower limbs (78,6%) and walking with regular changes in pace or movements (78,3%) to stimulate children's stability. This preference fully corresponds with empirical evidence that locomotor tasks that change speed and direction effectively support the development of balance, coordination, and overall motor competence (Battaglia et al., 2019; Şendil et al., 2024, Presser et al., 2025; Calero-Morales, 2023; Biru et al., 2025). Alternating pace forces the child to constantly reactively stabilize their center of gravity and adapt in accordance with the step cycle, which is consistent with findings that preschoolers use increased coactivation of ankle muscles and lateral steps to ensure stability even at their preferred walking speed (Apibantaweesakul et al., 2025).

On the other hand, the relatively lower use of movement on uneven surfaces (56,3%) and on slopes (34,7%) points to a certain orientation of pedagogical practice towards so-called "safe flat surfaces". Current research emphasizes that walking on uneven surfaces and slopes significantly increases the demands on proprioception, vestibular regulation, and the autonomic nervous system, which in turn leads to important adaptations in motor and cardiac parameters (Dussault-Picard et al., 2023; Lustig et al., 2025). Although balance development methodologies systematically work with various uneven and unstable surfaces, such as cushions, mats, or "stilts" (Bochkov, 2019), our data reveal a tension between the safety and organizational constraints of preschools and the recommendations of experts who emphasize the importance of uneven and natural surfaces for the optimal development of balance and proprioceptive sensitivity (Şendil et al., 2024; Calero-Morales, 2023; Dussault-Picard et al., 2023; Bochkov, 2019).

4.3 Determinants of motivation in the educational process

When analyzing the determinants of motivation in the fourth research question, we found that respondents consider interesting and entertaining games (77,4%), the use of various aids (74,3%), and the inclusion of music or singing (72,4%) to be the most effective motivational elements. The dominant role of games and material aids as key motivational factors is consistent with the findings that structured "ludic-motor" activities increase not only the level of motor skills but also overall motivation and a positive attitude towards movement (Battaglia et al., 2019; Biru et al., 2025; Li et al., 2025). Programs based on self-determination theory, autonomy support, and experiential learning have also been shown to increase intrinsic motivation and enjoyment of physical activity, thereby creating a favorable motivational environment (Kelso et al., 2020). Coaching conversations are also essential, which, according to Štefáková, Krásna, and Gerec (2025b), also help identify the child's strengths, set realistic goals, and develop intrinsic motivation. The high effectiveness of musical accompaniment corresponds with evidence that rhythmic physical activities in preschool age promote motor coordination and self-regulation and are associated with higher emotional engagement in children, while the combination of walking with rhythm leads to a significant improvement in movement synchronization (Laure et al., 2023).

The relatively lower weight attributed to collective involvement (41,5%) may be related to the developmental egocentrism typical of younger preschoolers, but at the same time, this result contrasts with professional recommendations for group rhythmic and play activities. These programs have a proven positive impact on social relationships and self-regulation, especially when based on joint rhythmic movement and cooperative play (Williams, 2018; Laure et al., 2023; Biru et al., 2025). The results of our research therefore suggest that play, aids, and musical-rhythmic stimuli remain key motivational factors in locomotor activities in practice, while the social dimension of group cooperation is used to a lesser extent than current motivational theories and empirical data would recommend.

5 CONCLUSION

Research has confirmed that walking in preschool age is a key pillar of motor development and social inclusion. Theoretical findings emphasize the need for early diagnosis of disorders (CP, DCD, ITW) and the application of multisensory interventions. Research has shown that

playful forms of walking and rhythmic exercises that appropriately stimulate stability and arching of the foot dominate in kindergarten practice.
To further improve the educational process, we recommend increasing the frequency of walking on uneven surfaces and in natural terrain, which significantly supports proprioception and dynamic balance. The combination of pedagogical and therapeutic approaches thus remains an essential prerequisite for healthy motor development in children.

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SENIOR V REALITE REHOĽNEHO INŠTITÚTU

SENIOR IN THE REALITY OF A RELIGIOUS INSTITUTE

Renáta Jamborová

Abstract

Ageing is a complex process composed of several components, such as genetic predispositions, the influence of the external environment, adaptive capacity, and others. Social preparation for ageing means preparation aimed at ensuring the organization of changes in work, and the transition from a work-oriented pace to a calmer way of life. Retirement, although within a religious community we do not tend to use the term "retirement," the experience of withdrawing from long-term service can bring challenges into the psychological, spiritual, emotional, and social dimensions of our being and life. The termination of full-time service is often experienced as a sudden shock. Slowing down, coming to a stop, and mutual dialogue create the conditions for strengthening relationships as well as the relationship with the Lord in prayer. In this article, we present findings from qualitative research conducted in 2024–2025 within educational seminars for religious sisters focused on their preparation for and early experiences of retirement.

Keywords: *religious community, senior, change of service, new organization of priorities, demands of the community*

1 INTRODUCTION

Ageing is a complex process that affects genetic predispositions, the influence of the external environment, adaptive capacity, changes in social position, and other factors. It concerns the life of every human being, including consecrated persons in religious institutes. Part of preparation for ageing is social preparation focused on ensuring the organisation of changes in work and the transition from a work-oriented pace to a calmer way of life. In addition to this preparation, there is also a change of place where one has lived and worked so far, which may likewise represent a turning point in the life of a consecrated person. In this context, it is important to speak about a sense of belonging to the place where an older person lived, functioned, and was able to help actively. The period of senior age brings changes in the social position of the senior; it could be said that it is a period offering an opportunity to integrate one's life wisdom. According to Erikson, it is the ninth stage of human life, which consists in the ability to see, observe, and remember.[1]

Ageing is a complex process composed of several components, such as genetic predispositions, the influence of the external environment, adaptive capacity, and others. Social preparation for ageing means preparation aimed at ensuring the organisation of changes in work and the transition from a work-oriented pace to a calmer way of life. The creative capacity that remains present in a person can take various forms in older age and may have several levels of fulfilling unrealised dreams – studying at a university of the third age or an academy, devoting oneself to grandchildren; nor does the ability to acquire new knowledge through courses, education, and lectures come to an end. Ageing can take a highly effective form, especially when it is experienced within a circle of social relationships which, although different in form from before, may today have entirely new dimensions and quality.[2]

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[1] ERIKSON, H. Erik. *Životný cyklus rozšírený a dokončený*. Praha : Portál, 2015. p. 110.

[2] Compare HROZENSKÁ, M. a kol. *Sociálna práca so staršími ľuďmi*. 1.vyd. Martin : Osveta, 2008. p. 24-26.

Sense of Belonging to a Place

The loss of a sense of belonging to the place where an older person or a consecrated person lived and functioned may represent a certain uprooting from a place that was familiar and secure. Although throughout life a consecrated person, by the vow of obedience, changed communities and places of ministry, this change is now even greater. She moves into a community of elderly sisters, peers of retirement age. Thus, two paradoxes may arise. One is that she finds herself in a new place without contacts, exposed to changed activities and a new community; the other is that she is expected to be as active as at the time of her entrance into consecrated life, with the same strength, activity, and vitality. Belonging expresses the reality that a person belongs to a specific environment, to a concrete place, which includes subjectively meaningful communication, mutual giving and receiving, and the awareness of individual freedom and shared responsibility.[3]

Transcendence

"Deeply engaged detachment" is a paradoxical expression and also a state manifested by transcendence and detachment from materialistic and rational perspectives, while it is important in what light our lived life appears to us. Self-transcendence means living in harmony with chosen values and the realisation of spiritual and inner activities. According to Frankl, the world is objectively meaningful. Meaningfulness does not need to be invented by the human person. In our lives, there exists a certain hierarchy and order. The meaningfulness of small – sometimes seemingly insignificant or even trivial – events gives us a new dimension and an opportunity to savour and deeply experience life as never before. According to Frankl, in every person there is a demand to find and understand the meaningfulness of what they do and what happens, even if some events can only be understood later, with a certain time distance. The meaningfulness of the whole of life is what constitutes the central point of the existence of each of us. We search for it, strive to know it, even when we are aware that we cannot fully grasp it; nevertheless, "it is about living a life that is worth living."[4]

Ageing is an inseparable part of life. It is a natural stage of the life journey. Respect for the autonomy of the senior, regarding their current condition, is possible only based on information they provide about themselves and which we can hear. If we view ageing as a significant phenomenon accompanying modern society, then the position and status of the senior will not be a burden, but one of the key aspects indispensable for a civilised society and an integral part of human interaction and communication.[5]

Acceptance of Change in Identity and Role

For many members of religious institutes, service – such as teaching, pastoral ministry, care, mission work, and others – constitutes a central part of their identity. Retirement, although within religious communities we do not tend to use the term "retirement," the experience of withdrawing from long-term service may bring challenges into the psychological, spiritual, emotional, and social dimensions of our being and life. The termination of full-time service is often experienced as a sudden shock. It frequently begins with a feeling of well-being and life satisfaction, followed by a sharp decline in satisfaction. It is often experienced as a loss of status and ministerial identity, which may be followed by a period of grief and sometimes even depression.

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[3] JAMBOROVÁ, R. *Seniori a komunitné služby*. Trnava, Dobrá kniha, 2015.

[4] Compare KŘIVOHLAVÝ, J. *Psychologie smysluplnosti existencie*. Otázky na vrcholu života. Grada, 2006.

[5] Compare POKORNÁ, A. *Komunikace se seniory*. p. 9-10.

Although individuals often feel relief when the pressure of full-time service is lifted, many experience a sense of loss, emptiness, and a persistent desire to remain involved in service in some form. This often means that one can no longer rely on a familiar daily rhythm that provides a sense of security and predictability. Social ties with colleagues and friends developed over years of service are frequently weakened. A new way of life usually leads to a lifestyle in which a person experiences less physical energy and needs to find new ways of remaining actively engaged in life. It may happen that one begins to consider leaving the convent, which had long been regarded as one's "home."
Withdrawal from active service may trigger inner questions:

- *"Who am I if I no longer serve as I used to?"*
- *"Do I still have value for the community?"*
- *"How can I be useful when I am weak or ill?"*

The goal of psychological preparation is to help the religious person accept that the value of the person does not lie in activity, but in being – In the vocation to love and prayer. Psychologically, this involves a transition from the identity of a "doing person" to an identity of "being"—from performance to presence. In old age, dependence on others emerges – on assistance, health care, and the community. For a person who has professed the vow of poverty, this can paradoxically be demanding: to be dependent, to accept being served, frailty, and the loss of privacy.
From a psychological perspective, this includes building inner humility and gratitude, training in accepting help without feelings of guilt or inferiority and accepting one's vulnerability as a place of God's presence. It is also important to address themes of acceptance and forgiveness. The period of transition into retirement is often a time of remembering – people take stock of what they have accomplished, where they have failed, and what did not succeed. If these areas are not consciously processed, they may lead to bitterness or resignation.
In religious communities, conversations with a spiritual director, shared life storytelling, spiritual retreats focused on "gratitude and reconciliation," and the writing of one's life story (memoirs, testimonies for the younger generation) are therefore encouraged. Forgiveness is a valuable practice that can cultivate life in senior age. The path of spiritual maturation is also a path of compassion. There is nothing more important than acquiring a perspective of patience and compassion toward oneself and others; this is the essence of spiritual maturation in the senior stage of life. Such an attitude also strengthens identity when anger and aversion toward others are left behind. Compassion elevates us far more than passive, destructive inner experiences. Through the practice of forgiveness, life becomes more harmonious.[6]

Maintaining Relationships and Communication
For older members of religious institutes, it may be challenging to follow changes within the community, to accept younger members with a new lifestyle, and not to feel "set aside." It is therefore helpful to maintain active intergenerational contacts and to create spaces where older members can share their experiences of faith and be involved in common decision-making, at least with an advisory voice. In this way, psychological continuity and a sense of belonging are preserved.
The community bears responsibility toward its older members in terms of care and integration. It is important that seniors are not isolated but remain an active part of communal life. Adapting the daily rhythm – easier tasks, more calm, spiritual and emotional support – and creating space for mutual accompaniment between generations all contribute to this aim. We can help and support seniors in the community to experience later life with dignity and

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[6] SINGH K. D. *The grace in aging*. Awaken as you grow older. Wisdom. Somerville, MA 02144 USA. 2014 p.165-166.

fulfilment, strengthen their spiritual life, and enable them to remain a living part of the community.
This includes fostering a culture of respect and gratitude toward older members, creating systems of spiritual and practical accompaniment, and motivating younger members to serve seniors as a new form of apostolate. In some communities, there are also "houses of peace" or "homes for elderly religious," which are not only places of health and social care, but also spaces for the fulfilment of spiritual needs – depth of spirituality and prayer.

Meaning and Hope

The greatest threat in old age is the feeling of uselessness – between strength and weakness. We may also reflect on the polarity between absence and presence.[7] A religious person has a significant advantage in that their vocation has a permanent spiritual dimension; even in illness or frailty, they can live their "mission" through prayer, offering, and inner peace. For this reason, emphasis is placed on the spiritual accompaniment of seniors, the communal celebration of jubilees (e.g., 50 years of vows), and the perception of old age as a final mission – to be a sign of fidelity.
Spirituality is understood as a process through which people seek the deeper meaning of their lives. Spirituality as a connection with the transcendent offers, in the senior age of a religious person, a remarkable space for growth and openness to new dimensions—toward a deeper discovery of divinity, of God, and of His beauty.[8] Our advanced years are part of our vocation. These years are grace not granted to everyone. The ultimate meaning of human life may remain, even during these years, as something that is still being completed. During our advanced years, life does not slip away; rather, it comes to its fullness, to its definitiveness. This stage of life has an irreplaceable significance.

Qualitative Research

Over a two-year period (2024–2025), we implemented an educational program focused on personal development and the strengthening of community in consecrated life, specifically designed for religious sisters in senior age. The project involved 30 sisters aged between 65 and 75. The aim of the project was to explore the qualitative parameters of growth among individual members of consecrated life in connection with the transition from active service to service within the community. We sought to identify their real needs and dilemmas.
The program was organised into three three-day meetings over the course of two years. With the participants, we conducted group evaluations structured as focus groups, oriented toward priorities and key areas of consecrated life during the transition into retirement age. We coded the categories and identified three areas of interest as priorities on which the sisters in senior age focused as essential during this period.

CATEGORY 1: Q1 Community and Communion

From the qualitative interviews, we selected the following statements:
"I experienced a strengthening of the joy of community within me. I experienced unity in diversity. My relationship with the Lord was strengthened. I am grateful for a beautiful, sincere sisterly community."

CATEGORY 2: Q2 Spirituality and Knowledge of Sacred Scripture

[7] MANENTI,A.- GUARINELLI,S. ZOLLNER,H. *Formation and the person*. Essays on Theory and Practice. Peeters, Paris. 2007.
[8] TREBSKI, K. – JAMBOROVÁ, R. *Seniori v novej realite*. Dobrá kniha, Trnava, 2023. p. 49.

"Unity in diversity. Strengthening of the relationship with the Lord. Many new impulses for working with Sacred Scripture. A deeper love for Sacred Scripture. New perspectives, renewal, greater enthusiasm for working with Sacred Scripture…"

CATEGORY 3: Q3 New Ways of Learning through Experience

"New theories, new approaches. Never being afraid to appreciate. New horizons opened for me. A connection of spirituality, learning, and rest. The old is not bad, but values need to be given a new form. New formation, emphasis on relationships and freedom, prayer, rest, shared time lived in joy…"

Based on these findings, we can state that religious sisters in senior age place strong emphasis on community and communion, as well as on the peer group, as very significant for their shared journey. Slowing down, pausing, and mutual dialogue create conditions for strengthening relationships and for deepening the relationship with the Lord in prayer. Another important category is the desire for enrichment through spirituality, particularly through knowing and studying Sacred Scripture and its genesis, especially in experiencing already familiar texts in a new understanding and with a new message, thanks to interactive engagement with Scripture.

New ways of learning through experience brought joy, enthusiasm, and a renewed perspective on values, showing that the old is not bad, but can be transmitted in new ways. It became evident that educational seminars for this age group represent a significant contribution and strengthening for a deeper understanding of the stage of maturation and the journey toward full transcendence, lived in the love to which they dedicated their lives.

2 CONCLUSION

A spiritual perspective and openness to preparation for retirement age, around the age of 65 in the life of a consecrated person, proves to be essential. A reduction in activity and transformation into new areas appear to be highly beneficial and supportive for maturation into the fullness and beauty of a life that is given. Part of the educational seminars was a deeper exploration of the inner desires and priorities of consecrated people in senior age, between 65 and 75 years of life.

From the presented findings, we conclude that the sisters expressed "being rather than doing" as key for their age period. This is also confirmed by research conducted by Gajdošová, which states that the dignity of every human being lies in their being, not in their performance or service.[9] Time for "reflective use of time" is a privilege of senior age, as it helps to connect what has so far remained unconnected, to complete what is unfinished, and to recapitulate what has been created.

More time for the integration of life experiences through healthy introspection enables a re-evaluation of life and opens the theme of gratitude and forgiveness as key components of senior age. These findings, however, do not always correspond with the expectations of the community in which a sister lives or to which she moves immediately after retirement. There are expectations that she will fulfil the roles of a younger sister – efficient, full of energy and vitality – as in previous stages of her life. However, irreversible changes are not compatible with such expected pace and performance.

New demands regarding the quality of consecrated life in senior age present a major challenge, requiring a change in perspective on the dignity of the person and their age. Allowing oneself to incorporate beloved spiritual activities into one's life – such as prayer, liturgy, spiritual study, seminars, engagement with Sacred Scripture, the bearing of suffering, physical frailty, or dependence – brings an integrated readiness of the consecrated person for

[9] GAJDOŠOVÁ, S. *Menej konať, viac byť*. Postoj médiá. Bratislava, 2021.

future life beyond the veil of what is known. Without this transformation in the final stage of the life of a consecrated person, we would fall solely into a performance-based paradigm, which was neither the goal at the beginning nor at the end of the life of a consecrated person.

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EXCESSIVE INTERNET USE AMONG UNIVERSITY STUDENTS: CONCEPTUAL FOUNDATIONS AND OVERVIEW OF EMPIRICAL FINDINGS

Patrícia Javorková

Abstract

The paper is a partial output of the project and provides a theoretical foundation on the issue of excessive internet use (EPI) among university students. It offers an overview of current findings on EPI prevalence and creates a starting point for the subsequent stages of the project. The text presents the specific position of students as intensive users of digital technologies. It synthesizes available international and domestic research on the occurrence of EPI among students, including identified risk and protective factors. The findings emphasize the need for further targeted research on this issue in Slovakia. The paper thus establishes a theoretical basis for the next stages of the project. This publication was supported by the Recovery and Resilience Plan of the Slovak Republic under the project "Risk and Protective Predictors of Excessive Internet Use among University Students" / IG-2024-004-D.

Keywords: *excessive internet use, protective factors, risk factors, university students*

1 THEORETICAL BACKGROUND

In recent decades, the internet has become a key part of individuals' daily lives (Van Schalkwyk, Gold, Silverman, 2020). Global data confirms its ever-increasing reach—the Digital 2022 report stated that 62.5% of the world's population used the internet in 2021 (Sánchez-Fernández, Borda-Mas, & Mora-Merchán, 2023). The trend continued in the following years: in February 2025, 5.56 billion people (67.9% of the population) had access to the internet, and by July 2025, that number had risen to 5.65 billion, representing 68.7% of the population (Kemp, 2025). The situation is similar in Slovakia. The Digital 2024: Slovakia report states that in January 2024, approximately 5.25 million people used the internet, representing 91.4% of the population (Kemp, 2024). In January 2025, there was a slight decline to approximately 5.05 million users (91.8% of the population), a decrease of approximately 24,000 people (Kemp, 2025). Despite this small deviation, the rate of internet use in Slovakia remains consistently high, indicating its firm anchoring in everyday life.

This trend has highlighted the need to examine not only the benefits but also the potential risks of excessive internet use, including its addictive nature (Sánchez-Fernández, Borda-Mas, Mora-Merchán, 2023). However, the high level of availability and intensive use of the internet also creates conditions for the emergence of excessive or problematic use. This phenomenon can have a negative impact on various areas of life and, in certain cases, can develop into addictive behavior. The positive and negative effects of internet use are particularly evident among young people, who have long been among its most frequent and intensive users. University students represent a particularly significant group in this regard. The gradual digitization and computerization of higher education has made Internet use an integral part of academic life. Students come into contact with it during enrollment, in academic information systems, during classes, as well as in everyday activities such as ordering meals or communicating with teachers. For them, the internet is not only a work or study tool, but also a key communication and social space.

For most young people, university is a period of gradual independence and taking responsibility for their own lives. At the same time, it is a time when students move away from the direct care and supervision of their families and enter an environment that expects a higher degree of independence and responsibility from them. This period of life is accompanied by a number of changes to which young people must adapt (Krajčová, 1997).

Current university students mainly belong to Generations Y (born 1981–1997) and Z (born after 1997), which have been significantly shaped by the development of digital technologies and the internet (Khernová, Kostolanská, 2017). Generation Y, also known as the "virtual generation," learned to work with technology gradually; the internet and social networks represented a new space for communication and information gathering (Niklová, 2023). In contrast, Generation Z grew up in an environment where digital technologies are a natural part of everyday life. They use it intuitively, exhibiting a high degree of connectivity, multitasking, and a need for immediate feedback, but at the same time a lower ability to concentrate for long periods of time (Khernová, Kostolanská, 2017; Spitzer, 2014; Niklová, Šimšíková, 2022; Holdoš, 2013).

For both generations, the internet is a key tool for education, work, and social interaction. University students use it not only for academic purposes, but also as a space for relaxation and self-realization, which, when used intensively, can lead to risky forms of online behavior, including excessive internet use.

The concept of EPI thus represents a form of maladaptive behavior that can lead to the development of psychological, social, academic, and professional dysfunctions in an individual's life (Koç, 2011). It is an impulse control disorder that is not caused by intoxication with a psychoactive substance and belongs to the broader group of so-called technological addictions (Malovič, 2007). These disorders belong to the category of behavioral addictions, where maladaptive and repetitive behavior serves as a coping mechanism or substitute for unmet psychological needs. Problematic or excessive Internet use is often referred to in the professional literature as a transitional (subclinical) state leading to a fully diagnosable Internet addiction. In this sense, it is a concept that does not yet meet all the clinical criteria for an addictive disorder but may pose a significant risk for the development of a full-blown form of addiction (Kuss, Pontes, 2018; Griffiths, 1995; Billieux et al., 2017). Therefore, such behavior can be considered a precursor to internet addiction, which already exhibits significant characteristics of problematic behavior in the digital environment.

Kuss and Pontes (2018) point out that the dichotomous distinction between healthy and addictive internet use does not capture the full range of this behavior. They therefore propose the introduction of a third category, namely highly engaged, excessive, or excessive internet use. This type of behavior can be considered an intermediate form between clinical addiction and functionally adaptive internet use. It manifests itself through the presence of some symptoms typical of addiction, such as cognitive dominance of the activity, experiencing positive emotional reinforcement, or gradual escalation of tolerance, but these signs are not fully developed or sustained over the long term.

It follows from the above that excessive internet use is based on the same behavioral indicators as clinical addiction, originally formulated by Griffiths (1995), but not in their complete and permanent manifestation. Despite the absence of full clinical severity, this type of behavior can negatively affect subjective well-being and also represents a risk factor for the development of addiction in the narrower sense of the word.

Billieux et al. (2017) define internet addiction as repeated and persistent behavior leading to significant impairment in health or daily functioning, with individuals unable to reduce this behavior on their own. The condition for diagnostic relevance is a duration of at least 12 months and the presence of functional impairment. The authors also provide a set of exclusion criteria that allow the clinical form of addiction to be differentiated from excessive behavior. This is behavior that can be explained by a primary mental disorder (e.g., depression, impulse control disorder), behavior resulting from free and conscious choice (e.g., professional gambling), behavior characterized as temporary intense activity without significant functional impact, as well as behavior understood as a temporary adaptive strategy in response to stressful or traumatic events. The distinguishing criteria between excessive and addictive Internet use are therefore mainly the duration and extent of negative consequences. While addiction is characterized by long-term use and significant functional impairment, excessive use may be episodic, with limited or no lasting negative impact. In some cases, it even represents a relatively conscious strategy for coping with stress.

2 EMPIRICAL STUDIES AND FINDINGS

People and social groups face various threats and uncertainties in their everyday lives. EPI is one of the modern risk activities that accompany humans. It mainly concerns the growing prevalence of excessive, excessive, or addictive Internet use. This phenomenon has become a major global problem, and from this perspective, study and research into this phenomenon are justified. A relatively sufficient amount of research is being conducted in the field of EPI, but the vast majority focuses on adolescents in primary and secondary schools.

The group of university students, which is also exposed to specific academic and psychosocial pressures, has so far been less reflected in the study of this phenomenon. The motivation for choosing this research topic is therefore an effort to provide a comprehensive and up-to-date picture of the issue of EPI, including its risk and protective predictors in university students, while contributing to the development of a database of scientific evidence in the context of the growing need for prevention and intervention in this area.

For a thorough and comprehensive understanding of EPI, it is necessary to start from a systematic review of existing research findings. In line with the above, the following sections of the text will present in more detail the research carried out in this area, focusing on the population of university students.

Table 1 International Research on Excessive Internet Use in University Students

Author(s), year of publication, origin	Measuring tool used; Research sample	The most interesting results
Namayandeh Joorabchi, et al, 2024, Malaysia, Asia	PIUQ; 440 resp., 23-40 y.	- a significant relationship between "problems with Internet use, social isolation, and Internet addiction - no statistically significant relationship was found between the variables of Internet use and social isolation - no significant differences were found between the variables of marital status, field of study, and Internet addiction.
Amano, A., et al., 2023, Jimma,	YIAT; 772 resp., 18-29 y.	- 53.6% of respondents were addicted to the internet (of which 36.9% had low addiction, 14.6% had moderate addiction, and 2.1% had high addiction) - risk predictors: depression, social anxiety, and weak social support

southwestern Ethiopia		
Domalewska, et al., 2022, North Macedonia and Poland	IAT 780 resp.,	- 36.3% (36.5% PL and 35.8% MK) - mild PIU; - 18.4% (10.7% PL and 39.4% MK) - moderate PIU; - 1.2% (0.5% PL and 2.9% MK) - severe level of PIU - the study found no relationship between demographic factors such as age and gender and PIU - respondents from North Macedonia showed greater susceptibility to PIU compared to respondents from Poland.
Herruzo, et al., 2022, Spain	IAT 408 university students with Disabilities; 1386 university students without disabilities	- The group of university students with ZP showed less PIU than students without ZP. - Using the threshold value set in the IAT, PIU was found in 33.3% of students without ZP and 13.5% of students with ZP. - The worst results in variables related to mental distress were found in students with ZP who also had PIU.
Kożybska, et al., 2022, Poland	IAT 595 resp., 18-29 y.	- 30.6% of respondents were at high risk of PIU. - - Increased rates of PIU were more common among men and students of technical fields than among students of health and social fields.
Sánchez Fernández, et. al, 2022,	PRISMA University students	- Database searches identified 117 studies that examined risk and protective factors for problematic online behavior - Protective factors for excessive Internet use: • Self-control/regulation - 7/7 studies • Sense of satisfaction - 9/13 studies - Risk factors for excessive internet use: • Depression, anxiety, stress, boredom, experiencing, suicidal thoughts - 24/25 studies, • Emotional instability - 3/6 studies • Excessive mobile phone use - 10/10 studies • Excessive use of social networks - 6/6 studies
Stubbs, et al., 2022, Jamaica	PIUQ 277 resp., 18-48 y.	- Participants aged 18–23 showed significantly higher levels of PIU than participants aged 24–50. - Gender was not a significant predictor. - The strongest predictor of PIU was depression (b = 0.201, p = 0.007). - Anxiety, stress, and attachment anxiety were not significant predictors.
Dhamnetiya,	IAT	- PIU prevalence was 41.3%

et al., 2021, Dalhia, India	201 medical students,	- - Risk factors - using the internet for emotional support, viewing adult content, gambling and chatting
Hong Cai, et al., 2021, China	1070 resp.	- The prevalence of PIU among university nursing students was 23.3%. - - Depression was confirmed as a risk factor for PIU.

Source: own processing

The issue among university students in Slovakia has been little researched, as illustrated by the summary table, which concludes our overview of the issue of EPI among a research sample of university students.

Table 2 Overview of Domestic Studies on Excessive Internet Use among University Students

Author(s), year of publication, origin	**Measuring tool used;** **Research sample**	**The most interesting results**
Doktorová, D., et al, 2023	PRIUSS 389 resp., the average age was 18.41 years	- There is a statistically significant positive relationship between the overall rate of problematic Internet use and academic procrastination. - College students have a higher rate of procrastination compared to high school students - Women are more prone to problematic Internet use than men
Gavurová, et al., 2022	IAT 1 422 resp. from ČR and 1 677 resp. from SK.	internet addiction: - Mild in 27.2% of Czech and 27.0% of Slovak students. - Moderate in 3.4% of Czech and 6.0% of Slovak students. - Severe in 0.1% of Czech and 0.2% of Slovak students. Male students and students who lived away from home during the semester were more likely to be addicted to the internet. Depressive symptoms and stress can also be considered significant predictors in both countries.
Niklová, M., 2022	IAT 383 resp., 18-29 y.	48,2% EPI 11,4% IA
Hosťovecký, et al. 2019	IAT 276 resp., 19-29 y.	7,97 % IA
Holdoš et al., 2017	AICA – S 405 resp., 18 – 45 y.	13,2 % EPI; 2,3 % IA
Holdoš, Ďurka, 2015	AICA – S	5,5 % IA;

	192 resp., 18-27y.	19,8 % EPI
Lichner, Šlosár, 2014	IAT 306 resp., 18-26y.	21 % moderate level of problems with using the internet
Holdoš, 2013	IAT 490 resp., average age 20,97 y.	71.4% mild dependence 4.6% moderate dependence

Source: own processing

The included studies do not deal exclusively with internet addiction as an isolated phenomenon, but examine it in the context of various social, psychological, and behavioral variables.

The studies included in the review are based on a variety of research designs, including cross-sectional, longitudinal, and experimental studies. Identifying possible predictors and determinants of this risky behavior, especially in the adolescent and young adult population, is of great importance in relation to excessive Internet use. Within the theoretical framework of behavioral sciences, these determinants are typically divided into risk (vulnerable) and protective (resilient) factors.

Risk factors are variables that increase the likelihood of undesirable forms of behavior. According to the concept of Costu and Jessor (2001), these are conditions and circumstances that can influence all stages of the development of problem behavior, from its onset, through maintenance, to progression and deterioration. From a functional point of view, these factors increase the likelihood of engaging in problem behavior, increase the availability of opportunities for such behavior, and create contextual conditions that support or normalize its occurrence.

Conversely, protective factors are understood as variables that contribute to the development of adaptive, prosocial, and psychologically stable behavior. Their presence reduces the intensity or likelihood of risky behavior or, by weakening the influence of risk factors, facilitates the management of stressful situations (Obando et al., 2014).

The behavior of young people in the context of digital space is the result of interactive dynamics between risk and protective factors. This interaction is reflected in the way individuals respond to external stimuli, regulate their emotions, and make decisions in the online environment. Empirical findings clearly confirm that the balance between these factors is a key predictor of the degree of susceptibility to problematic internet use.

Conclusion

Although the internet offers many undeniable advantages, such as streamlining access to information, facilitating professional and educational responsibilities and greatly simplifying social communication, its intensive daily use also brings with it a number of risks and pitfalls. With the increasing amount of time spent online and the ever-expanding range of ICTs that enable continuous connectivity, the boundaries between functional and excessive use of the digital environment are gradually blurring. In many cases, virtual space is replacing real social interactions, characterized by specific dynamics and characteristics determined by the technological tools through which it is created and used.

In this context, current scientific discourse increasingly reflects on the phenomenon of EPI, which is a multidimensional phenomenon that transcends the traditional understanding of problematic behavior. EPI is perceived in the broader context of lifestyle digitization, academic performance, social participation, and psychological well-being. Current academic trends emphasize the need to examine this phenomenon in interaction with individual characteristics, social determinants, cultural factors and the technological environment, with particular attention paid to groups that are particularly exposed due to their stage of life and academic workload.

University students represent a specific population group in which the demands of the academic environment overlap with psychosocial developmental challenges, which can create conditions for more intensive involvement in online activities. Despite this, the topic of EPI in this population has been relatively little researched in Slovakia to date. Most of the available domestic research focuses on children and adolescents attending primary and secondary schools, while university students remain less reflected upon.

For this reason, it is crucial in the current scientific discourse to identify the risk and protective predictors that determine the extent and nature of internet use among university students. The knowledge gained in this way is of fundamental importance not only for understanding the dynamics of EPI, but also for developing effective prevention and support strategies in the university environment. The motivation for choosing this research topic is to provide a comprehensive and up-to-date picture of the issue of EPI, while contributing to the expansion of the database of empirical evidence in the context of the growing need to prevent problems associated with EPI among the university student population.

Affilation

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CREATIVE MUSIC LISTENING IN PRIMARY EDUCATION

Ivana Jurčo

Abstract

The study examines creative music listening as a means of developing conscious musical perception in primary education. The theoretical framework conceptualizes perceptual processes, traditional and innovative instructional approaches, and introduces a model of creative music reception comprising motivational, perceptual-analytical, creative-interpretative, and reflective-synthetic phases. The empirical section presents findings from a quasi-experimental investigation conducted with primary school pupils, comparing the effectiveness of a traditional expository lesson with a creatively oriented pedagogical model. Analysis of pretest and posttest data demonstrated statistically significant improvements in pupils' visual, graphic, and movement-based interpretations of musical material following the implementation of the creative model. The results indicate that creative music reception substantially deepens understanding of musical structure and expressive elements, confirming its potential as a pedagogically valuable approach in primary music education.

Key words: *creative music listening, perceptual activities, quasi-experiment.*

1 INTRODUCTION

Creative music listening represents a didactically grounded and pedagogically effective approach that, within the process of music education, emphasizes the learner's active participation in musical perception. It is a pedagogical strategy that goes beyond passive reception and transforms listening into a complex activity involving perception, analysis, interpretation, and reflection on a musical work. Creative, problem-solving, movement-based, or visual activities serve as tools for fostering a deeper understanding of musical expressive means, enabling learners to internalize music on emotional, cognitive, and aesthetic levels. Scholars (Burlas, Langsteinová, Elliott, and others) emphasize that perceptual activities constitute a fundamental component of music education, as they form the basis for the development of musical thinking, aesthetic sensitivity, and cultivated listening behavior.

At the primary level of education, perceptual activities play a crucial formative role. During this developmental stage, pupils are naturally predisposed to intuitive and emotional experiences of music; therefore, it is didactically essential to guide them systematically toward distinguishing individual musical parameters (melody, rhythm, tempo, dynamics, timbre) and identifying instruments, sounds, and voices. The teacher acts as the creator of the learning environment, selecting appropriate musical works—from children's and folk songs to representative examples of orchestral, operatic, or ballet music—and ensuring their didactic suitability in terms of content, scope, and artistic value. The quality of musical material is key, as aesthetically valuable works cultivate musical taste and support refined musical perception.

Integrating interactive and creative methods into the perceptual process enables pupils to form complex musical representations, deepen their cognitive-aesthetic competencies, and develop the ability to interpret musical content within the context of their own experiences. Creative listening thus assumes the character of holistic music education, supporting not only the development of musical abilities but also the formation of a lifelong positive relationship with music as an artistic and cultural phenomenon.

2 CREATIVE MUSIC LISTENING IN PRIMARY EDUCATION

Several traditional models of music listening are applied in pedagogical practice. Burlas (1997) proposes a six-step procedure that includes motivation, listening, characterization, analysis, and repeated listening. Langsteinová and Felix (2000) combine holistic and analytical perception in four consecutive phases. Sedlák and Vaňová (2013) emphasizes the gradual transition from motivational attunement to a synthetic, conscious experience of music. The common denominator of all these approaches is the interconnection of experience and analysis—that is, the integration of the emotional and cognitive aspects of listening.

A significant methodological enrichment is represented by the method of receptive interaction, which interprets music listening as an interactive dialogue between the music, the teacher, and the pupil. The teacher creates a motivational and aesthetic context within which pupils actively develop their perceptual abilities. The success of the method depends on objective factors (acoustic conditions, recording quality, nature of the piece) as well as the pupils' subjective predispositions (mood, experience, emotional openness). The method makes use of riddles, games, problem tasks, associative activities, drawing music, graphic scores, body-percussion activities, and dramatic elements (Elliott, 2012). These activities enable pupils to intuitively grasp musical structures, express dynamics, tempo, rhythm, or melodic character through their own creations, and deepen their aesthetic experience (see more in: Jurčo, 2024).

The above indicates that perceptual activities in the first stage of primary school aim to shape the pupil into an active, receptive, and aesthetically sensitive listener capable of working consciously with musical content. We therefore built on these foundations and proposed a specific model of creative music listening that systematically connects perceptual, analytical, and creative pupil activities. The model is based on the assumption that a child not only listens to music but also interprets it through movement, imagery, associations, and language. In practice, it unfolds in several consecutive phases: the motivational phase draws on pupils' experiential world through a story, problem question, or emotional stimulus; the perceptual-analytical phase focuses on guided listening, in which pupils identify basic musical-expressive means (tempo, dynamics, melodic character, expression) and link them with their own mental representations; the creative-interpretative phase develops these foundations through drawing music, graphic scores, body-percussion, movement, and dramatic activities, whereby the pupil actively "co-creates" the music that is being listened to; the reflective-synthetic phase then guides pupils toward naming the emotions they experienced, generalizing observed phenomena, and formulating simple aesthetic evaluations of the piece.

This model was verified in pedagogical practice at the primary school level while working with the pieces *The New Doll* and *The Sick Doll* from P. I. Tchaikovsky's *Album for the Young*. Across two teaching units, we observed the extent to which the proposed structure supports active musical reception, pupils' ability to distinguish and name musical-expressive means, their imaginative and emotional engagement, as well as their willingness to express their musical experiences verbally and nonverbally. By comparing the traditional expository approach with the creative, activity-oriented model, we obtained empirical data for assessing the effectiveness of creative music listening as a promising didactic approach in primary education.

3 RESEARCH ON CREATIVE MUSIC LISTENING

Research problem, objectives, and hypotheses

The aim of the chosen quantitative research strategy was to verify the effectiveness of the proposed concept of creative music listening as an innovative pedagogical approach in music education, focused on developing the ability of conscious listening and identification of musical-expressive means in pupils of the 1st stage of primary school. In connection with this aim, the following research problem was formulated: What is the effectiveness of the proposed concept of creative music listening in pupils of the 1st stage of primary school in terms of developing the ability to perceive music consciously and identify its basic musical-expressive means? We assumed a positive effect of interactive music listening on three dimensions of pupils' musical perception: artistic (H1), graphic (H2) and movement (H3) interpretation of expressive elements of the composition.

Research design

Within the quantitative strategy, a quasi-experimental research design was chosen, which makes it possible to verify the effectiveness of didactic innovations in authentic conditions of the teaching process. The essence of this design is the implementation of a pedagogical intervention into the natural educational environment, with the methodological intervention of the teacher playing a decisive role. The use of a pretest and posttest made it possible to compare the initial and final levels of the observed perceptual and interpretative competencies of pupils.The main diagnostic tool consisted of specially constructed evaluation activities aimed at measuring pupils' ability to perceive music consciously, identify musical-expressive means, and express them adequately through graphic, artistic, or movement forms.

Pretest/Posttest – evaluation activities Activity 1 – Artistic interpretation of the emotional character of the composition

In the first diagnostic task, pupils worked in randomly selected pairs with a worksheet containing symbolic elements representing the bipolarity of emotional qualities (joy – sadness). During repeated listening to the compositions *The New Doll* and *The Sick Dol* (P. I. Tchaikovsky), they visually completed the assigned symbols, thus artistically expressing their subjective emotional response to the music. The activity made it possible to assess the level of pupils' ability to identify and differentiate basic emotional contexts of the musical expression.

Activity 2 – Graphic musical notation

In the second task, pupils individually constructed a graphic musical notation of *The Sick Doll*. Through intuitive visual forms (lines, shapes, colours) they captured characteristic musical-expressive elements, the structure, and the overall atmosphere of the composition. Before the actual notation, a reference example of a graphic score was presented, serving as a model visualization framework. The activity diagnosed the level of pupils' ability to abstract and graphically represent musical material.

Activity 3 – Movement interpretation using scarves

The third diagnostic task was oriented toward the kinesthetic dimension of musical perception. Pupils interpreted musical-expressive means through movement while working with scarves of two contrasting colours (light – positive emotional charge; dark – negative emotional charge). Through movement they reacted to the dynamics, melodic course, and expression of the composition, thus manifesting the ability to internalize musical structure through movement. The activity provided data on the level of motor-expressive reactions to music.

Research sample and environment

The research sample consisted of 20 second-grade pupils from the city of Nitra (Slovakia). The research was carried out during music education lessons in standard school conditions.

Mediator: Research intervention

The experimental intervention included two 45-minute teaching units in which the concept of creative music listening was applied. The compositions *The New Doll* and *The Sick Doll* from the cycle *Album for the Young* by P. I. Tchaikovsky were chosen as model works. Their formal clarity, clear tectonic structure, and distinctive emotional contrasts created suitable conditions for perceptual-analytical and creative work with pupils.

Data collection and processing

The research process consisted of two consecutive teaching units that differed in the didactic approach used. The first, traditionally conceived lesson took place in the form of explanation and frontal teaching, in which pupils mainly fulfilled a receptive role and passively received information about musical-expressive means. Immediately afterwards, a pretest was administered, aimed at determining the initial level of the observed competencies. The second, experimental teaching unit was carried out on the basis of creative, problem-based, and perceptually oriented didactic procedures. The teacher acted as a facilitator of learning, supporting pupils' active participation, self-expression, exploratory processing of musical material, and involvement of multiple modalities of musical perception. After completion of this lesson, a posttest identical to the pretest was administered, allowing the observation of changes in performance after the pedagogical intervention. The aim of this two-phase implementation was to comparatively assess the effectiveness of the traditional and interactive teaching approaches in terms of developing the evaluated perceptual, artistic, and movement competencies of pupils.

Research instrument, validity, and reliability

The research instrument, validity, and reliability were designed to ensure maximum accuracy and methodological consistency of the obtained data. Content validity was ensured by linking the test activities to the objectives of the State Educational Programme for Music Education and their orientation toward key components of musical perception (analytical listening, identification of expressive elements, artistic and movement reactions). Formal validity was strengthened through consultations with experts in music pedagogy and by adapting the tasks to the developmental specifics of younger school-age children. Criterion validity was based on comparing the performance of the same group before and after the intervention, with differences analysed using the Wilcoxon signed-rank test and supplemented by qualitative observation.

Reliability of the instrument was supported through standardization of testing conditions, use of identical test tools in both measurements, internal consistency of tasks, and an objective evaluation protocol. The short interval between the pretest and posttest contributed to measurement stability, while statistical verification of the results strengthened the credibility of interpretation. This set of validation and reliability procedures guarantees adequate methodological integrity of the research and enables a relevant assessment of the effectiveness of the proposed concept of creative music listening in primary education.

Statistical analysis and interpretation of results

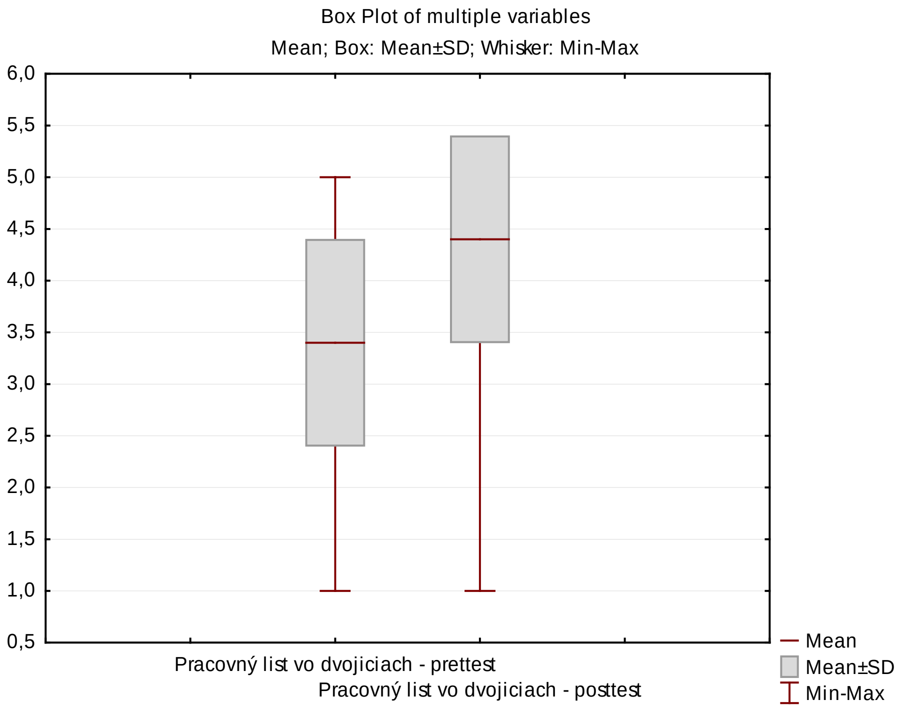
To determine whether a significant difference occurred between pretest and posttest results, the non-parametric Wilcoxon signed-rank test was used.

H1: We assume a positive effect of the proposed concept of interactive music listening on the level of ability of pupils of the 1st stage of primary school to artistically express the character of a musical composition.

Worksheet in pairs				**Wilcoxon Matched Pairs Test Marked tests are significant at p <,0500**				
	Mean	**SD**	**N**	**T**	**Z**	**p**	**Confidence -95%**	**Confidence +95%**
Prettest &	3,40	0,99472						
Posttest	4,40	0,99472	18	1,6543	2,70327	0,01409	-1,77426	-0,225745

Mean – average; SD – standard deviation; N – number of changes; T, Z – test statistic; p – level of statistical significance

The Wilcoxon test confirmed a statistically significant improvement in pupils' results when using interactive methods ($Z = 2.703$; $p = 0.014 < 0.05$). In the pretest, which followed after the traditionally conducted lesson, pupils achieved an average score of $M = 3.40 \pm 0.99$ points. After the application of interactive teaching, their result in the posttest was significantly higher, on average $M = 4.40 \pm 0.99$ points. From the results of the 95% confidence interval, it follows that the difference in the average number of obtained points would in practice range from 0.23 to 1.77 points (which means that interactive teaching most likely contributed to an improvement of at least almost a quarter of a point, and the maximum improvement could reach almost two points). The results therefore confirmed that the use of an interactive form of teaching significantly supported more effective mastery of the subject matter by pupils compared to the traditional teaching method.



Graph 1 Worksheet in pairs – comparison of results in the pretest and posttest.

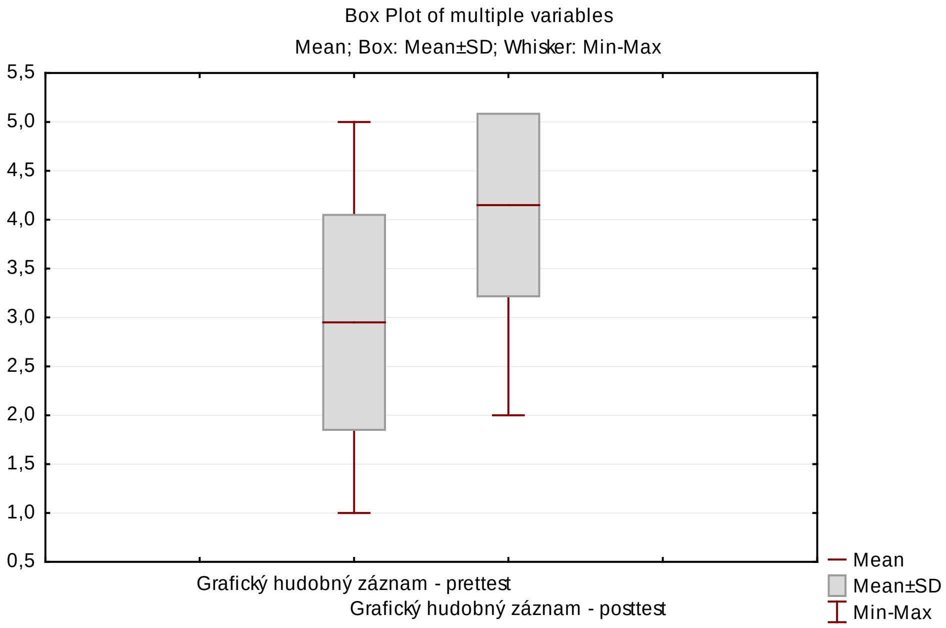
Conclusion: Hypothesis H1 was confirmed.
H2: We assume a positive effect of the proposed concept of interactive music listening on the level of ability of pupils of the 1st stage of primary school to graphically capture the musical-expressive means in the listened composition (by means of a graphic musical notation).

Graphic musical notation			Wilcoxon Matched Pairs Test Marked tests are significant at p <,0500					
	Mean	SD	N	T	Z	p	Confidence -95%	Confidence +95%
Prettest &	2,95	1,099						
Posttest	4,15	0,933	19	11,00	3,3803	0,00072	-1,64529	-0,754706

Mean – average; SD – standard deviation; N – number of changes; T, Z – test statistic; p – level of statistical significance

In the case of the second activity – the graphic musical notation – the Wilcoxon test identified a highly significant statistical difference between pupils' results in the pretest and posttest (Z

= 3.380; p = 0.00072 < 0.001). The average score of pupils after the traditional lesson reached a value of M = 2.95 ± 1.10 points, while after the interactive teaching it increased to M = 4.15 ± 0.93 points (which was an increase of 40.68%). With 95% probability, we can expect that the difference in the achieved score when using the given methods in practice will fall within the interval of 0.754–1.645 points. Similarly to the first activity (worksheet in pairs), this activity also showed that interactive methods have a clearly positive effect on mastering the subject matter. Given that the difference in results was this time even more pronounced, we may conclude that for certain types of activities – such as the graphic musical notation – the use of interactive approaches may be particularly effective.



Graph 2 Graphic musical notation – comparison of results in the pretest and posttest.

Conclusion: Hypothesis H2 was confirmed.

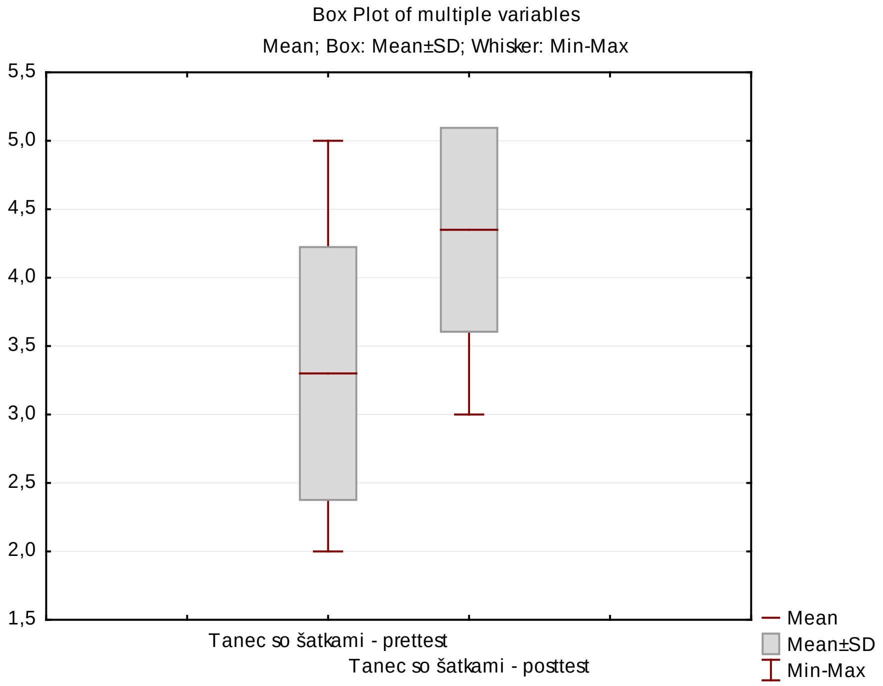
H3: We assume a positive effect of the proposed concept of interactive music listening on the level of ability of pupils of the 1st stage of primary school to express musical-expressive means through movement in the listened composition (through the activity "dance with scarves").

Dance with scarves				**Wilcoxon Matched Pairs Test Marked tests are significant at p <,0500**				
	Mean	**SD**	**N**	**T**	**Z**	**p**	**Confidence -95%**	**Confidence +95%**
Prettest	3,30	0,9234						
& Posttest	4,35	0,7452	17	11,00	3,10065	0,00193	-1,54144	-0,558556

Mean – average; SD – standard deviation; N – number of changes; T, Z – test statistic; p – level of statistical significance

Within the third hypothesis, we examined whether pupils' performance would improve after the use of interactive teaching methods also in the activity focused on movement interpretation of music (dance with scarves). The results of the Wilcoxon signed-rank test showed a statistically significant improvement between the pretest and posttest (Z = 3.101; p = 0.0019 < 0.01). The average score of pupils after traditional teaching reached the value M = 3.30 ± 0.92 points in the pretest; after the interactive form of teaching it increased to M = 4.35

± 0.75 points, which represented an improvement in pupils' performance by 31.82%. The value of the 95% confidence interval, ranging from 0.56 to 1.54 points, indicates a clear positive effect of the interactive approach in teaching.



Graph 3 Dance with scarves – comparison of results in the pretest and posttest.

Conclusion: Hypothesis H3 was confirmed.

4 Conclusion

The implemented quasi-experimental research confirmed that the proposed concept of creative and interactively oriented music listening represents an effective pedagogical approach that supports the development of conscious musical perception in primary education pupils. The comparison of the pretest and posttest results showed a significant improvement in artistic, graphic, and movement-based responses to musical-expressive means, which indicates that multisensory, creative, and student-activating procedures enable a deeper understanding of musical material and its aesthetic-emotional content. The creative teaching model proved to be significantly more effective than traditional frontal teaching, which limits independent perception, reflection, and creative interpretation of music.

The findings also confirm the need for the systematic development of musical perception in early school age, with an emphasis on activating methods that support independent discovery, expressive communication, and the connection of musical stimuli with the pupil's personal experience. Creative music listening appears to be an appropriate path toward developing aesthetic sensitivity, musical thinking, and the ability to interpret musical works through various modalities, which significantly contributes to the holistic musical development of the child.

However, the research also has its limitations – particularly the small size of the research sample (n = 20), its implementation within a single educational context, and the absence of a control group. The subjective nature of some assessment tasks (artistic and movement outputs) represents another limiting factor, although it was minimized through a unified assessment procedure and standardized testing conditions. These limitations indicate the need for further validation of the proposed model on larger and more diversified research samples.

From a pedagogical perspective, several recommendations for practice can be formulated based on the findings. First, it is advisable to systematically implement creative perceptual methods into music education, as they support active learning and the development of musical imagination. Second, the use of multisensory activities – artistic, graphic, and movement-based – proved to be effective, as they naturally motivate pupils and allow them to understand musical content through various modalities. Third, the teacher's role should shift toward facilitative guidance that supports pupils' independent activity, interpretation, and reflection. Finally, the selection of musical material should reflect the needs of young listeners, and therefore it is appropriate to prefer works with a clear formal structure and distinct contrasts, which create favorable conditions for creative perception.

Based on the above, it can be stated that creative music listening represents a didactically justified and methodologically effective model that has the potential to significantly enrich the traditional form of music education. Its broader implementation may contribute to the development of aesthetic culture, musical thinking, and the formation of a positive relationship with music among children already in the lowest grades of primary education.

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SPOLUPRÁCA NA ZÁKLADNEJ ŠKOLE: INTEGRÁCIA UMELECKÝCH PRVKOV

COLLABORATION AT PRIMARY SCHOOL: INTEGRATION OF ARTISTIC ELEMENTS

Bianka Katreníková

Abstrakt

Rozvoj kompetencií pre 21. storočie, najmä kolaboratívnej spolupráce a kreativity, predstavuje kľúčovú výzvu pre moderné edukačné systémy. Teoreticky vychádzame z odbornej literatúry autorov venujúcich sa kolaboratívnej spolupráci, kreativite a sekundárnemu pojmu čitateľská gramotnosť. Predkladaný systematický prehľad syntetizuje zistenia troch medzinárodných výskumov (slovenského, nemeckého a fínskeho) zameraných na integráciu umenia vo vzdelávaní. Zistenia ukazujú, že využitie umenia výrazne posilňuje sociálnu interakciu, čitateľskú gramotnosť a spoločnú spoluprácu v školskom prostredí.

Klíčová slova: *kolaboratívna spolupráca, kreativita, čitateľská gramotnosť, dramatizácia*

Abstract

The development of 21st-century competencies, particularly collaboration and creativity, represents a key challenge for modern educational systems. Theoretically, the paper draws from scholarly literature focusing on collaboration, creativity, and the secondary concept of reading literacy. The presented systematic review synthesizes findings from three international studies (Slovak, German, and Finnish) focused on arts integration in education. The findings indicate that the use of arts significantly enhances social interaction, reading literacy, and collaboration within the school environment.

Keywords: *collaboration, creativity, reading literacy, dramatization*

1 TEORETICKÉ VÝCHODISKÁ

Spoločnosť vyznačujúca sa kvalitatívnymi zmenami v rôznych oblastiach od technologickej racionalizácie až po životný štýl či spôsoby ponímania skutočnosti a noriem poznania , kladie zvýšené nároky na kognitívne a sociálne spôsobilosti žiakov na školách. Nejde len o kritické myslenie, ktoré v sebe zahŕňa schopnosť vidieť problém z viacerých strán a hodnotiť stratégie riešenia (Kosturková, 2019), ale ide aj o schopnosť spolupráce a tvorivosť, ktoré sú považované za nosné spôsobilosti pri podieľaní sa na spoločenskom živote. Práve II. stupeň základnej školy je kľúčovou fázou pri rozvoji týchto kompetencií. Žiaci totiž postupne prechádzajú k abstraktnejšiemu mysleniu. Napriek tomu, že sú uvedené kompetencie dôležité pre úspešný prechod do profesijného života, školský vzdelávací systém často zlyháva pri modernejšími pedagogických postupoch, ktoré by žiakov rozvíjali. Naďalej skôr vidíme uplatňovanie tradičných foriem, kde dôvodom ich neustálej realizácie je najmä časová dotácia jednotlivých predmetov. Práve čas je pre mnohých pedagógov obmedzujúcim prvkom pri zlepšovaní výučby. Nato, aby sme mohli diskutovať o zlepšovaní školstva, je potrebné zabezpečiť aj dostatočné vysokoškolské vzdelávanie pre budúcich pedagógov, ktorí budú môcť v následnej praxi rozvíjať u žiakov vyššie spomenuté kompetencie. Pavlov pri tejto téme spomína niekoľko základných prvkov:

- hodnoty a ciele určujúce motiváciu a potreby rozvoja,

- podpora profesijného rozvoja,
- poskytovanie spätnej väzby.

(Pavlov, 2013)

My sa na rozvoj kľúčových kompetencií žiakov 21. storočia pozeráme cez výtvarnú výchovu, resp. integráciu umeleckých prvkov najmä v oblastiach ako je čitateľská gramotnosť či dramatizácia. Ide však skôr o sekundárne prvky, ktoré by sa mali prirodzene podporovať. Náš pohľad sa ale neupriamuje na vzdelávanie budúcich pedagógov, ale na podporu rozvoja žiakov, a to predovšetkým formou spolupráce. Učiteľ je vo vzdelávacom procese bezpochyby neoddeliteľnou súčasťou, no je dôležité si uvedomiť, že v škole nie je kvôli učivu. Je tam preto, aby pomocou spoločnej práce žiaci rozširovali svoje schopnosti a zručnosti, ktoré sa im neskôr budú hodiť (Čapek, 2020). Zároveň by sa pedagóg mal snažiť využívať aktivity, ktoré vedia u žiakov vyvolať, tzn. stav "flow", kde sa samotná tvorivá aktivita stane odmenou, a pri ktorej je účastník naplno zaujatý. V kolaboratívnom umeleckom projekte môže nastať fenomén "zdieľaného flow". Keď skupina žiakov spoločne maľuje, hrá alebo tvorí, a všetci sú plne ponorení do procesu, dochádza k synchronizácii, ktorá prehlbuje vzájomné puto a porozumenie. Kolaboratívna kreatívna tvorba učí deti tomu, čo sa v škole často nedá naučiť slovom – aktívne počúvať, spoločne premýšľať a vedieť sa vcítiť do emócii druhého. Valachová v tejto súvislosti uvádza, že ide *„o schopnosť zlepšovať základné zručnosti ako skúmať, analyzovať, syntetizovať učivo, hodnotiť, riešiť problém, schopnosť tímovej spolupráce, kritické myslenie, ktoré subjekt využije na existenciu a práce v budúcnosti v reálnom živote (Valachová, 2025, p.178)."* Ak má škola rozvíjať žiaka v jeho celistvosti, musí podporovať učenie, ktoré je sociálne, emocionálne a tvorivé - nie izolované, ale spoločné. Práve preto sa v článku zameriavame na integráciu umenia, ako efektívneho rámca pre rozvoj kolaboratívnej tvorivosti a kompetencii žiakov.

1.1 Kolaboratívna spolupráca

Kolaboratívna tvorivosť je komplexný sociálno-konštruktivistický jav, ktorý vyžaduje syntézu prístupov z progresívnej pedagogiky a teórie sociálneho učenia. Teoretické základy vychádzajú z projektovej metódy rozvinutej na začiatku 20. storočia. Ako uvádza Knoll (1997), projektová metóda nevznikla izolovane, ale je výsledkom dlhodobého vývoja ideí pragmatizmu, ktoré zásadne ovplyvnili John Dewey a jeho žiak William H. Kilpatrick. William H. Kilpatrick publikoval v roku 1918 zaujímajú prácu *The Project Method.* V nej rozoberal pojem "projekt" ako vtedajší prírastok pedagogickej terminológie.
Podľa Knolla (1997) týmto zdôraznil emocionálne zapojenie, motiváciu a vlastnú iniciatívu žiakov. Deweyho centrálnym prvkom bol však *„akt myslenia"* a skúsenosť orientovaná na riešenie problémov. Projekt teda chápal nie ako spontánnu aktivitu, ale ako **r**iadený proces, ktorý by mal byť pedagogicky štruktúrovaný, aby viedol k premýšľaniu, reflexii a rozvoju intelektuálnych kompetencií. Dewey svojho žiaka kritizoval, že žiaci nie sú sami schopní plánovať projekty, a teda je potrebné vedenie učiteľa (Knoll, 1997). Práve napätie medzi Deweyho dôrazom na štruktúrované premýšľanie a Kilpatrickovou orientáciou na tvorivý účel aktivity vytvorilo teoretický rámec, ktorý je mimoriadne vhodný pre kolaboratívne výtvarné projekty. V kontexte základných škôl, najmä na druhom stupni, z toho vyplýva, že kolaboratívne výtvarné, literárno-dramatické či multimediálne projekty musia prepájať oba princípy:

- **tvorivý cieľ a angažovanosť žiakov** (Kilpatrick),
- **štruktúrované vedenie, premýšľanie a reflexiu** (Dewey).

Pri takto koncipovaných projektoch dochádza nielen k rozvoju tvorivosti a sociálnej spolupráce, ale aj k prehlbovaniu kognitívnych funkcií vrátane čitateľskej gramotnosti, ktorá využíva interpretáciu, analýzu textov, dramatizovanie, vizuálne spracovanie či prepájanie s rôznorodými výtvarnými médiami.

Pre upresnenie, pojem kolaboratívnosť a spolupráca vo vyučovaní sa začali začleňovať od 80. – 90. rokov a stali sa zaužívanými pojmami. Nešlo ani tak o nové pojmy ako o nový spôsob vyučovacích foriem, ktoré mali posilňovať sociálnu a intelektuálnu angažovanosť (Smith, MacGregor, 1992). Pod pojmom kolaboratívnosť autorky chápu, *„rôzne vzdelávacie prístupy zahrňujúce spoločné intelektuálne úsilie študentov a učiteľov...pričom hľadajú vzájomné porozumenie (Smith, MacGregor, 1992, s. 11).“* Kľúčovým slovným spojením je tu **"spoločné intelektuálne úsilie"**. V kontexte výučby to znamená, že žiaci nepracujú vedľa seba na individuálnych častiach, ale pracujú spolu na riešení problému. Práve vzájomné porozumenie a kreatívne interakcie sú dôležitým aspektom v pracovnom prostredí. Výtvarné kolaboratívne projekty stimulujú pracovné prostredie, kde je kreativita dôležitá pri kolektívnom riešení problémov a rozvoji medziľudských vzťahov. Ďalším tiež veľmi zaujímavým podnetom je zameriavanie sa na samotného jedinca. Pochopenie významu tvorivej spoločnej spolupráce v umeleckej výchove totiž vyžaduje dekonštrukciu tradičných mýtov. Napríklad, autorka Vera John-Steiner, v kontexte tvorivosti, vo svojej kľúčovej práci *Creative Collaboration* potvrdila posun v myslení od zamerania sa na indivíduum k sociálne konštruktivistickému pohľadu na tvorivosť. Podľa tohto prístupu nie je ľudská myseľ akousi izolovanou jednotkou, ale je formovaná interakciou s kultúrnym prostredím a s inými ľuďmi (Steiner, 2000). John-Steinerová popisuje kolaboratívnu tvorivosť ako komplexný proces, ktorý v sebe zahŕňa zvládanie náročných interpersonálnych dimenzií. Taktiež podľa autorky *„trvalá a vzájomne prospešná spolupráca poskytuje jednotlivcovi zrkadlo a rozširuje jeho sebapoznanie, ktoré je kľúčové pre kreativitu (Steiner, 2000, p. 48).”* Tento teoretický rámec je pre umeleckú výchovu zásadný. Úlohou školy nie je len rozvíjať technické zručnosti žiaka (ako maľovať, hrať, spievať), ale vytvárať prostredie pre "zdieľané myslenie". Spolupráca pri umeleckej tvorbe umožňuje žiakom zažiť, že emócie nie sú prekážkou učenia, ale jeho zdrojom. Učenie sa stáva procesom, ktorý je sociálny, emocionálny a tvorivý – nie izolovaný. V kontexte výtvarnej výchovy to znamená, že kolaboratívny projekt nie je len o estetickom výsledku, ale aj o etickom procese. Keď žiaci spoločne tvoria, učia sa rešpektovať jeden druhého a preberať zodpovednosť za spoločný výsledok.

1.2 Výtvarná integrácia

Program CETA (Changing Education Through the Arts) definuje cieľ umeleckej integrácie ako snahu urobiť umenie neoddeliteľnou súčasťou vzdelávania, ktorá zvyšuje angažovanosť a inšpiráciu študentov (CETA, 2022). Zároveň je dôležité si uvedomiť, že umelecká kolaboratívnosť funguje obojsmerne: posilňuje žiakov sociálne a tvorivo, a zároveň metodologicky a emocionálne posilňuje pedagógov, čo je kľúčové pre udržateľnosť inovácií v škole. Tu môžeme nadviazať práve na slovenskú autorku Martinu Kostrukovú, ktorá zdôrazňuje, že budúca príprava pedagógov musí zahŕňať rozvoj kritického myslenia, metakognície, a taktiež aj rozvoj spolupráce a tvorivosti (Kosturková, 2019). Program CETA v edukačnom kontexte rozlišuje tri varianty začlenenia umenia:

1. **Art as Curriculum** (Umenie ako samostatný predmet)
2. **Arts-Enhanced Curriculum** (Umenie ako doplnok)
3. **Arts-Integrated Curriculum** (Umelecko-integrované kurikulum)

(CETA, 2022)

Práve tretí model využívajúci umelecké presahy a formy na dosiahnutie cieľov aj v iných vyučovacích oblastiach, je kľúčový pre rozvoj kolaboratívnej tvorivosti, pričom na II. stupni ZŠ si vyžaduje značnú multimodálnu interakciu. Jednou z ďalších implementácií pri uvedenom modely *Arts-Integrated Curriculum* by mohla byť dramatická pedagogika. Dramatizácia je tvorivá a aktívna forma, ktorá si vyžaduje multimodálne stratégie učenia prostredníctvom ktorých dokáže zapojiť žiakov verbálne, vizuálne a dramaticky do spoločného výstupu. Prepojením umenia a kolaboratívnosti sa priamo rozvíjajú sociálne kompetencie potrebné na zvládanie kreatívnych výziev a rozvoj morálneho usudzovania, čím sa významne posilňuje vzdelávanie žiakov.

Integráciu nachádzame aj medzi čitateľskou gramotnosťou a výtvarnou výchovou. Žiaci prepojením týchto dvoch oblastí rozvíjajú hlbšie porozumenie textu a tvorivé uchopenie jeho podstaty cez symboly, interpretácie či ilustrácie. Téme vizuálnej a verbálnej rovine v texte sa venovali aj slovenské autorky, kde sa vo svojej štúdii zaoberali detskou knihou a symbiózou medzi textom a obrazom. Poukázali na potrebu simultánne pracovať s oboma rovinami - vizuálnou aj verbálnou (Magalová, et al., 2022). Čitateľskú gramotnosť totiž nemožno chápať len ako prácu s holým písaným textom. Integrácia, v ktorej sa využíva interpretácia textu prostredníctvom ilustrácie, tvorbou vizuálnych metafor alebo s prepojením dramatickej pedagogiky - dramatizácia literárneho diela, umožňuje žiakom hlbšie porozumieť významovým vzťahom a podporuje ich tvorivé a sociálne zručnosti. V kontexte kolaboratívnej tvorivosti má integrácia výtvarnej výchovy a čitateľskej gramotnosti zásadný význam. Keď žiaci spoločne analyzujú text, vytvárajú vlastné vizuálne diela alebo dramatizujú literárny obsah, ide o komplexné sociálne procesy vyžadujúce komunikáciu, koordináciu, tvorivé rozhodovanie a spoločné dosiahnutie cieľa. Takto koncipované vyučovanie zvyšuje angažovanosť žiakov a podporuje hlbšie porozumenie učiva, čo koniec koncov potvrdzuje aj tretí variant *Arts-Integrated Curriculum* podľa programu CETA. Na podobný kurikulárny rámec však poukazuje aj nová slovenská reforma školstva. Štátny vzdelávací program (ŠVP) pre základné vzdelávanie vyzdvihuje potrebu presunúť ťažisko z memorovanie na rozvíjanie funkčných, multimodálnych oblastí, kritického myslenia, metakogníce a spolupráce - a že žiak má byť aktívnym tvorcom vlastného učenia, pričom pedagóg je v role facilitátora a podporuje reflektívne procesy žiaka (Ministerstvo školstva, vedy, výskumu a športu SR [MŠVVaŠ SR], 2022a). No a práve vzdelávacie štandardy pre oblasť *Umenie a kultúra* konkretizujú ciele, ktoré sú priamo relevantné pre kolaboratívne umelecké projekty. Okrem technických a estetických kompetencií sa medzi cieľmi uvádza rozvíjať tvorivosť, schopnosť kooperovať, empatiu a reflexiu umeleckých výstupov (MŠVVaŠ SR, 2022b). Kurikulárne požiadavky nielen povoľujú, ale aj očakávajú, aby výtvarné a dramatické činnosti rozvíjali sociálne a reflexívne zručnosti - predpoklady k udržateľnej kolaboratívnej tvorivosti v triede. Rovnako je to aj pri vzdelávacích štandardoch pre *Slovenský jazyk a slovenskú literatúru*, ktoré podporujú interdisciplinárnu prácu s textom. Ide napríklad o integrovanie umeleckých postupov do literárnej výučby, vizuálna interpretácia motívov, tvorba komiksov, dramatizácia vybraných úryvkov, transformovanie textu do iného jazyka, pričom všetky možnosti sú v súlade s oficiálnym vzdelávacím štandardom (MŠVVaŠ SR, 2022c).

Z uvedeného vyplýva priestor pre nasledujúcu výtvarnú integráciu:

1. **Kolaboratívne výtvarne postupy v čitateľskej integrácii:** Aktivity, v ktorých žiaci spoločne ilustrujú jednotlivé literárne diela, navrhujú scény pre dramatizáciu alebo vytvárajú vizuálne mapy tematických vzťahov.
2. **Reflexia:** Uplatnenie hodnotiacich rozhovorov počas a po umeleckej prezentácii (napr. peer-feedback)
3. **Interdisciplinárna spolupráca:** Rola pedagóga, ktorý umožňuje žiakom realizovať rôzne činnosti zabezpečujúce ich kognitívny, emociálny a sociálny rozvoj. Preto by mala byť táto interdisciplinárna spolupráca rozvíjaná aj pri samotnej vzdelávacej príprave učiteľov.

Výtvarná integrácia nielen do literárnej vzdelávacej oblasti sa tak ukazuje ako kurikulárna nevyhnutnosť pre vzdelávanie 21. storočia. Všetky tri oblasti reformy *(ŠVP, VO – Umenie a kultúra, VO - Slovenský jazyk a slovenská literatúra)* poskytujú pevný didaktický rámec pre realizáciu umelecko-integrovaných prístupov v základnom vzdelávaní.

2 METODOLÓGIA

2.1 Dizajn výskumu

Predkladaný systematický prehľad sa zaoberá tromi vybranými, geograficky a metodologicky rôznorodými výskumami. Systematický prehľad s následnou kvalitatívnou syntézou slúži na dosiahnutie cieľa vytvoriť komplexný obraz o účinnosti výtvarnej integrácie vo vzťahu klaboratívnej spolupráce a rozvoju tvorivosti a čitateľskej gramotnosti. Všetky tri výskumy sú zamerané na integráciu umenia, spoluprácu a rozvoj čitateľskej gramotnosti v školskom prostredí. Hendl uvádza, že *„výhody systematického prehľadu spočívajú v dôslednosti a prehľadnosti procesu jeho tvorby, predovšetkým v identifikácii, kritickom zhodnotení a syntetizácií výsledkov...(Hendl, 2005, p. 355)."* Z dôvodu heterogenity vybraných výskumov nebola cieľom štatistická metaanalýza v zmysle výpočtu jedného súhrnného efektu, ale systematická kvalitatívna syntéza. Hendl takýto postup pri systematickom prehľade popisuje podľa Coopera, ktorý do procesu tvorby systematického prehľadu zahrňuje formuláciu problému a zber dát až po analýzu a interpretáciu dát a následnú prezentáciu výsledkov (Hendl, 2005). V súvislosti s výskumným problémom sa spätne obraciame na teoretické východiská, kde sme poukazovali na potenciál kolaboratívnej spolupráce ako prirodzeného prístupu pri rozvoji vyšších kognitívnych funkcií, sociálnej interakcie a tvorivosti a čitateľskej gramotnosti. Viaceré výskumy realizované v rôznych krajinách však majú odlišné metodologické prístupy a rozmanité pedagogické intervencie. Hlavným dôvodom je preto potreba syntetizovaného poznania, ktoré by spojilo tieto rôznorodé výskumy do jednotného rámca a odpovedalo na otázku - Ako kolaboratívne umelecké interakcie podporujú rozvoj tvorivosti a čitateľskej gramotnosti žiakov? Tento výskumný problém nás viedol k potrebe:

1. zhromaždiť dostupné empirické štúdie z rôznych európskych a medzinárodných kontextov,
2. analyzovať ich metodologické prístupy a výsledky
3. syntetizovať ich kľúčové poznatky v podobe systematického prehľadu.

Kritéria výberu

Jednotlivé výskumy boli vybrané podľa jasne stanovených kritérií v kontexte odporúčaní z odbornej literatúry.

1. **Oblasť:** výskumy zamerané na oblasť pedagogiky z rôznych krajín.
2. **Prostredie:** výskum realizovaný v školskom prostredí.
3. **Kvalita:** výskumy s jasným popisom metodológie a vyhodnotením výsledkov.
4. **Prvky:** kolaboratívne a umelecké prvky (kolaboratívne projekty, výtvarná výchova, dramatizácia).
5. **Cieľové zameranie:** explicitné alebo implicitné zameranie na čitateľskú gramotnosť, rozvoj kreativity či sociálnu interakciu.

Na základe uvedených kritérií boli vybrané nasledovné pedagogické výskumy:

1. Magalová, Gajdoš & Vyskočová (2022) - Slovensko
2. Giera (2025) - Nemecko
3. Junttila, Karhunen & Hautala (2024) - Fínsko

Stručná charakteristika analyzovaných výskumov

Magalová, Gajdoš & Vyskočová (2022) *A Book for Children as Symbiosis of a Text and a Picture: Can Future Teachers Evaluate Literary and Illustrative Value of Books for Children?*

- Analýza skúmajúca, ako vysokoškolskí študenti ako budúci učitelia dokážu hodnotiť detskú knihu ako symbiózu textu a obrazu. Autori analyzovali súčasnú úroveň prípravy vysokoškolských študentov pri práci s knihou a navrhovali postupy a ich využitie v konkrétnych aktivitách vzdelávacieho procesu (Magalová et al, 2022).

Giera (2025) *Everyone Is Reading and Playing! A Participatory Theatre Project to Promote Reading Competence*

- Štúdia skúmajúca využitie divadelného projektu na zlepšenie čitateľských kompetencií u žiakov so špeciálnymi výchovno-vzdelávacími potrebami. Prostredníctvom dramatizácie a textov so zameraním na gramotnosť a sociálnu interakciu so snahou zlepšiť čitateľskú gramotnosť (Giera, 2025).

Junttila, Karhunen & Hautala (2024) *Pedagogical sensitivity in successful drama educational reader's theatre – experiences of the teachers*

- Skúmanie pedagogických skúseností pri implementácii dramatického vzdelávacieho čitateľského divadla. Prostredníctvom divadla zabezpečiť zábavný a inšpiratívny spôsob precvičovania čítania, kde opakovanie je prirodzeným prvkom v rámci nacvičovania. Štúdia sa zamerala aj na úlohu učiteľa pri vnímaní úspechov žiakov vo vzdelávaní (Junttila et al, 2024).

2.2 Tabuľka systematického prehľadu

<table>
<tr><th>Štúdia</th><th>Kontext</th><th>Dizajn</th><th>Prvky</th><th>Zameranie</th></tr>
<tr><td>Magalová, Gajdoš & Vyskočová (2022)</td><td>Slovensko

Cieľová skupina: vysokoškolskými študentmi</td><td>Kvantitatívny výskum.

Metódy: dotazník distribuovaný na 1 slovenskej univerzite</td><td>Čitateľská gramotnosť: Vzťah k čítaniu beletrie.

Umelecké prvky: Ilustrácia Hodnotenie knihy - symbióza obrazu a textu</td><td>Príprava učiteľov: Kompetencie budúcich učiteľov hodnotiť kvalitu detskej knihy</td></tr>
<tr><td colspan="5">Hlavné zistenia</td></tr>
<tr><td colspan="5">- Univerzitné prostredie motivuje študentov k intenzívnejšiemu čítaniu beletrie len slabo,
- Až 41,1% respondentov uviedlo, že počas ich predchádzajúceho štúdia na ZŠ/SŠ nemali skúsenosti s tvorivou prácou v literárnej výchovy,
- Študenti boli väčšinou presvedčení, že dokážu zhodnotiť umeleckú kvalitu textu a ilustrácií.</td></tr>
<tr><td>Giera (2025)</td><td>Nemecko

Cieľová skupina: Žiaci so ŠVVP</td><td>Dizajn orientovaný na výskum

Metódy: Zmiešaný výskum (štandardizované testy čítania LGVT + kvalitatívne terénne poznámky a pozorovanie).</td><td>Čitateľská gramotnosť: čítanie vo dvojiciach, zborové čítanie, čítanie nahlas

Kolaboratívna spolupráca: Sociálna interakcia v skupine.

Umelecké prvky: Divadelná inscenácia</td><td>Čitateľská gramotnosť: Čitateľské kompetencie (rýchlosť, porozumenie) a sociálna inklúzia.</td></tr>
</table>

Hlavné zistenia				
- Divadelný projekt zlepšil sociálnu interakciu, čo viedlo k novým priateľstvám medzi účastníkmi, - Kolaboratívna spolupráca prostredníctvom divadelnej inscenácie v inkluzívnom prostredí zvyšuje sociálnu interakciu, pretože sa stáva spoločným cieľom učenia, - Pri divadelnej inscenácii sa vedia žiaci zamerať na všetky tri úrovne čítania (čítanie vo dvojiciach, zborové čítanie, čítanie nahlas)				
Junttila, Karhunen & Hautala (2024)	Fínsko **Cieľová skupina:** Učitelia Žiaci (vek 8 –12r.)	Kvalitatívna štúdia **Metódy:** Pološtruktúrované rozhovory s učiteľmi, induktívna obsahová analýza a interpretatívna fenomenologická analýza	**Umelecké prvky:** Program DERT – kombinácia opakovaného čítania a procesnej drámy **Spolupráca:** Príprava divadelného predstavenia pre publikum	**Čitateľská gramotnosť:** Plynulosť čítania, motivácia k čítaniu, úzkosť z čítania. **Pedagogická prax:** Skúsenosti učiteľov a ich rola.
Hlavné zistenia				
- Kľúčovým faktorom úspechu bola pedagogická senzitivita učiteľa a schopnosť citlivo reagovať na potreby žiakov - Program DERT podporil bezpečné prostredie, kde sa žiaci nebáli robiť chyby, čo viedlo k zvýšeniu odvahy čítať a vystupovať - Žiaci čítali veľké množstvo textu dobrovoľne vďaka zameriavaniu sa na nácvik divadla, čo zvýšilo ich vnútornú motiváciu				

2.3 Kvalitatívna interpretačná syntéza výsledkov

Syntéza troch analyzovaných výskumov ukazuje viacero spoločných tém. Prvou je multimodalita ako nosný prvok vzdelávania. Objavuje sa naprieč všetkými vybranými výskumami, hoci v odlišných podobách. Napríklad pri Magalovej a kolektíve autorov (2022) sa ukázalo, že práca s textom a obrazom ako jednotným celkom podporuje hlbšie porozumenie významu literárnych textov. Hoci výskum neprebiehal priamo na ZŠ jeho implikácie pre výtvarno-literárnu integráciu sú zásadné. Druhou témou je kolaboratívna divadelná tvorba ako podpora zlepšenia čitateľskej gramotnosti a sociálnych väzieb. Nemecký výskum od Giera (2025) ukázal, že spoločná divadelná tvorba podporuje sociálnu interakciu a inklúziu. Zároveň divadelné aktivity stimulujú čítanie, čím prirodzene schopnosť podporujú porozumenie textu. Podobné závery môžeme uviesť aj od Junttila a koletívu autorov (2024), ktorých fínsky program zdôrazňoval pedagogickú senzitivitu pri nácviku divadelných scén založených na čítanom texte. Dramatická pedagogika má teda potenciál pri rozvoji čitateľskej gramotnosti, ktorá je súčasťou umeleckej prípravy. Treťou témou je úloha pedagóga ako facilitátora kreativity a interdisciplinárnych vzťahov. Fínske výsledky programu DERT potvrdili, že spoločná dramatizácia a učenie vôbec závisí od pedagogického prístupu - teda schopnosť reagovať na potreby žiakov, vytvárať podporné prostredie a zahŕňať umelecké aktivity do vyučovacieho procesu. Tieto zistenia tiež dopĺňa slovenský a nemecký výskum, podľa ktorých nedostatok kreatívnych činností vedie k oslabenej schopnosti žiakov využívať multimodálne stratégie. Napokon sa naprieč analyzovanými výskumami ukazuje, že umelecká kolaboratívna spolupráca zvyšuje motiváciu žiakov čítať, vizuálne interpretovať text a zapájať sa do projektov. Výtvarné a dramatické prvky tak spájajú tvorivosť s kognitívnymi procesmi.

3 DISKUSIA

Predložený systematický prehľad medzinárodných výskumov prináša zásadné zistenia, ktoré posúvajú chápanie výtvarnej a dramatickej výchovy z pozície okrajových predmetov do centra kognitívneho a sociálneho rozvoja žiaka. Naša interpretácia výsledkov potvrdzuje, že súbežné pôsobenie obrazu, textu a dramatického prejavu – nie je len estetickým doplnkom, ale kľúčovým kognitívnym nástrojom. Výsledky naznačujú, že ak žiaci pristupujú k textu prostredníctvom vizualizácie alebo dramatizácie, dochádza k hlbšiemu porozumeniu a trvalejšiemu ukotveniu vedomostí, čo priamo korešponduje s modelom *Arts-Integrated Curriculum* programu CETA. Zásadným interpretačným momentom je prepojenie sociálnej interakcie s čitateľskou gramotnosťou. Zatiaľ čo tradičná výučba čítania je často izolovanou aktivitou jednotlivca, nami analyzované výskumy dokazujú, že prenesenie čítania do roviny „spoločného projektu" znižuje úzkosť a strach z chyby. Kolaboratívna tvorba vytvára bezpečný priestor, v ktorom sa čítanie stáva prostriedkom na dosiahnutie vyššieho, spoločného cieľa - divadlo. Tým sa potvrdzuje teória John-Steinerovej o „zdieľanom myslení". Avšak úspech integrácie umenia nezávisí od talentu žiakov, ale od pedagogického prístupu učiteľa a jeho schopnosti facilitovať proces. Absencia tvorivej skúsenosti počas vysokoškolského štúdia môže byť obmedzením pri implementácii týchto inovatívnych prístupov.

4 ZÁVER

Predkladaný článok a systematický prehľad výskumov prinášajú jasné argumenty pre implementáciu umeleckých prístupov v kontexte aktuálnej kurikulárnej reformy na Slovensku. Prínos pre pedagogickú prax spočíva v potvrdení faktu, že rozvoj kompetencií 21. storočia – najmä kolaborácie a kreativity – nie je možný prostredníctvom pasívneho memorovania, ale vyžaduje si aktívne, projektové a multimodálne formy vyučovania. Článok ukazuje, že vizualizácia a dramatizácia textu sú efektívnymi inkluzívnymi nástrojmi aj pre žiakov so špeciálnymi výchovno-vzdelávacími potrebami. Z hľadiska ďalšieho výskumu by sme mohli apelovať na potrebu zážitkového vzdelávania budúcich učiteľov. Ak má učiteľ vytvárať v triede stav „flow" a viesť žiakov ku kolaboratívnej tvorbe, musí tieto procesy sám zažiť počas svojho štúdia. Implementácia umeleckých kolaboratívnych prístupov má potenciál nielen zvýšiť akademické výsledky žiakov v čítaní, ale predovšetkým posilniť sociálne väzby v triednych kolektívoch a formovať žiaka ako celistvú a tvorivú osobnosť.

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ABSENCIA UPLATNENIA PREDCHÁDZAJÚCEJ REGULÁCIE PRE KOMUNIKÁCIU ÚČASTNÍKOV ONLINE VZDELÁVANIA – RIZIKÁ „NÁHLEJ" REAKCIE

ABSENCE OF THE APPLICATION OF PRIOR REGULATION FOR COMMUNICATION AMONG PARTICIPANTS IN ONLINE EDUCATION – RISKS OF A "SUDDEN" RESPONSE

Adam Madleňák

Abstrakt

Vedecký článok sa zaoberá posudzovaním vzájomnej váhy a korelácie dvoch najvýznamnejších základných ľudských práv a slobôd v podobe slobody vyjadrovania sa a práva na súkromný a rodinný život. V špecifickom prostredí procesu vzdelávania sa skúmajú formy prejavov komunikácie jednotlivých účastníkov, ktoré môžu byť prítomné. Tie sa následne analyzujú prizmou právnych inštitútov s cieľom určiť právnu povahu zásahu do práva inej fyzickej osoby a identifikovať prípadné negatívne dôsledky s možným vznikom reparačného práva. Autor sa primárne snaží o nájdenie racionálnych právnych základov pre odlíšenie oprávneného a neoprávneného zásahu do práva na súkromný a rodinný život v dôsledku komunikácie iného subjektu pri zohľadnení prítomnosti technologickej interferencie ako osobitného prvku spoločenského prostredia, v ktorom sa proces vzdelávania uskutočňuje.

Kľúčové slová: *online vzdelávanie, sloboda vyjadrovania, komunikácia, kritika, ochrana súkromia*

Abstract

The scientific article deals with the assessment of the mutual weight and correlation of the two most important fundamental human rights and freedoms in the form of freedom of expression and the right to private and family life. In the specific environment of the educational process, the individual forms of communication that may be present among the participants are examined. These are subsequently analyzed through the prism of legal institutes in order to determine the legal nature of the interference with the rights of another natural person and to identify any negative consequences with the possible emergence of the right to reparation. The author primarily seeks to find rational legal foundations for distinguishing between justified and unjustified interference with the right to private and family life as a result of communication by another entity, taking into account the presence of technological interference as a special element of the social environment in which the educational process takes place.

Key words: *online education, freedom of expression, communication, criticism, privacy protection*

1 ÚVOD

Existencia technologickej interferencie mení, zdá sa, výrazne spoločenské prostredie, v ktorom prebiehajú rôzne sociálne javy nevynímajúc komunikačný proces a proces vzdelávania. Jej prítomnosť determinovanú výrazným rozšírením online prístupu v rôznych oblastiach života nasleduje meniaci sa charakter účastníkov komunikačného procesu, ktorí sú spravidla v určitej fáze života involvovaní aj do procesu vzdelávania, a to ako formálneho, tak i neformálneho. Účastníci vyskytujúci sa v online priestore na realizáciu rôznych aktivít sa tak vyznačujú násobne inými charakterovými prvkami alebo vlastnosťami, ako tí, ktorí boli súčasťou týchto procesov v minulosti. Výrazné presadzovanie elektronického ústneho podania informácie ako dominantnej podoby komunikácie medzi účastníkmi virtuálneho komunikačného procesu nemožno pritom považovať za príčinu, ale za následok takmer až extrémnych zmien správania sa spoločnosti v súvislosti s realizáciou sociálnych kontaktov a vzťahov. Posun od osobného kontaktu k dominantnej forme komunikácie prostredníctvom online priestoru umožnila technologická revolúcia ostatných desaťročí, ktorej základom sa stala nositeľná elektronika (mobilné zariadenia) s „vlajkovou loďou“ v podobe mobilných telefonických zariadení.

Všetky uvádzané spoločenské či sociologické východiská majú svoje vyústenie s ohľadom na zameranie predkladaného článku v jednom konštatovaní. Komunikácia účastníkov online sveta, a teda zákonite aj subjektov zapojených do procesu vzdelávania na akejkoľvek úrovni (ako obligatórnej formy progresívneho vývoja ľudskej spoločnosti), sa stáva nepredvídateľná, chaotická a najmä potenciálne riziková pre možné zásahy do základných ľudských práv a slobôd iných fyzických osôb bez možnosti prijatia akýchkoľvek preventívnych mechanizmov. A to najmä za predpokladu, ak napr. vzdelávací proces v sebe implikuje prítomnosť veľkého množstva fyzických osôb z rôznych sociálnych skupín, rozličných kultúrnych prostredí s odlišnou mierou nastavenia empatie k vnímaniu prípadných negatívnych dôsledkov vlastných prejavov. V dôsledku tejto skutočnosti preto autor vo vedeckom článku ponúka prostredníctvom kritickej analýzy pohľad na diferenciáciu jednotlivých prejavov fyzických osôb vrátane ich právnej kvalifikácie s ohľadom na právny rámec Slovenskej republiky. Pomerne hojne využíva odkazy na existujúcu národnú judikatúru, o ktorú sa snaží oprieť svoj vedecký výklad s dôrazom na identifikáciu oprávnených a neoprávnených zásahov do základných ľudských práv a slobôd iných fyzických osôb.

2 TEORETICKO-PRÁVNE VÝCHODISKÁ NORMATÍVNEJ REGULÁCIE KOMUNIKÁCIE V ONLINE PROSTREDÍ

Rozšírenie možnosti online komunikácie ako jedného z prostriedkov na zabezpečenie vzdelávacích aktivít prispelo aj k progresívnemu rastu osobitnej právnej regulácie spočívajúcej v prezentácii alebo zdieľaní myšlienok jej účastníkov širokému okruhu subjektov. Rovnako výrazné posilnenie tzv. náhodného zásahu komunikačným posolstvom, t. j. nielen aktívnemu adresátovi komunikácie, ale aj pasívnemu alebo náhodnému účastníkovi, zvýraznilo potrebu vzájomnej komparácie jednotlivých základných ľudských práv a slobôd dotýkajúcich sa prejavov ľudskej osobnosti oproti základným ľudským právam a slobodám vzťahujúcim sa k špecifickej ochrane fyzickej osoby ako takej (predovšetkým práva na ochranu ľudskej dôstojnosti a práva na súkromný a rodinný život).

Právo na ochranu súkromia (súkromného alebo rodinného života) patrí bezpochyby k tomu druhu základných ľudských práv a slobôd, ktorému by mala byť poskytovaná najvyššia priorita zo strany štátnej moci. Aj preto je právna ochrana súkromného a rodinného života (súkromia) garantovaná najvýznamnejšími právnymi predpismi Slovenskej republiky, napr. zákonom č. 462/1992 Zb. Ústavou SR alebo zákonom č. 40/1964 Zb. Občiansky zákonník v znení neskorších predpisov (ďalej len ako „Občiansky zákonník“), pričom rovnako je táto právna ochrana poskytnutá zo strany medzinárodných dokumentov. Oproti právu na súkromie do určitej miery v opozícii stojí sloboda vyjadrovania sa, ktorá, naopak, garantuje predovšetkým fyzickej osobe možnosť prejaviť svoj vlastný názor na rôzne spoločenské či právne otázky. Predmetom slobody prejavu tak môžu byť rôzne myšlienky, názory, vyjadrenia či postrehy, ktoré môžu svojím charakterom bezpochyby vnímať dotknuté osoby, ak sú predmetom ich záujmu, ako negatívne, nepríjemné, obťažujúce alebo znevažujúce (Bedi, 2009).

Mimoriadne sa sloboda vyjadrovania a jej prípustný rozsah a potenciálny dopad do oblasti základných ľudských práv a slobôd iných subjektov zohľadňuje v konotácii elektronického ústneho podania informácie v čase technologickej interferencie, ktoré má spôsobilosť zasiahnuť do kognitívnych, emocionálnych alebo behaviorálnych procesov ostatných účastníkov vzdelávacieho procesu alebo ostatných (náhodných) subjektov dotknutých výstupom konkrétnej formy komunikácie (Allmer, 2019). Musíme si totiž uvedomiť, že v tomto prípade (v rámci online priestoru) je potenciálny súbor dotknutých subjektov (príjemcov predmetnej informácie) podstatne širší v porovnaní s osobným kontaktom. Prípadné následky vyjadrenia sa môžu mať preto znásobený negatívny účinok a zásah do práva na súkromie. Vzhľadom na výrazne sa meniace spoločenské prostredie, ktoré v sebe inkorporuje odklon od tradičného offline prostredia, pričom mnohé aktivity sa realizujú už len v online podobe, aj predpokladané negatívne prejavy slobody vyjadrovania môžeme identifikovať predovšetkým v digitálnom prostredí buď formou negatívnej recenzie na rôznych webových sídlach, alebo prostredníctvom komentára či vyjadrenia sa napr. na sociálnej sieti konkrétnej fyzickej alebo právnickej osoby. Spomínaný charakter elektronického ústneho podania informácií založený bezprostredne na slobode vyjadrovania sa súčasne predpokladá, že budú popísané aj právne rámce a ich východiská k možnosti subjektu vyvodzovať právnu zodpovednosť za vyjadrenia používateľov sociálnych médií. A to najmä v okamihu, ak svojím vyjadrením prekročia hranicu prípustnej (vecnej) kritiky alebo hodnotiaceho úsudku a prezentovaná komunikácia smeruje k snahe o poškodenie oprávnených záujmov tohto subjektu.

To, čo však v istom zmysle významne absentuje, je miera uvedomenia si vlastnej zodpovednosti za komunikované posolstvá alebo správy zo strany fyzických osôb, ktoré sa tejto právnej ochrany slobody vyjadrovania dovolávajú v okamihu, ak subjekt, ktorý bol predmetom ich vyjadrenia, sa začne domáhať ochrany svojej ľudskej dôstojnosti vo väzbe na právo na súkromný a rodinný život (Vives, Morales, 2021). Subjektívne vnímanie hraníc slobody prejavu (vyjadrovania sa) zo strany týchto osôb totiž predstavuje v ich podaní určitú bezbrehosť vyjadrovania sa a komentovania skutočností a situácií, ktoré ony vnímajú a posudzujú zo svojho hľadiska. A to bez toho, aby zohľadnili ďalšie objektívne skutočnosti vzťahujúce sa k predmetu ich komunikovanej správy alebo zohľadnili názor, či vysvetlenie osoby, voči ktorej ich vyjadrenie smeruje (Doyle, Bagaric, 2005). Výsledkom je tak jednostranné vyjadrenie názoru či postoja, ktoré má často negatívny alebo difamujúci charakter, pričom jeho obsah nemusí a nemusel byť výsledkom objektívneho myšlienkového pochodu uvedenej osoby, ale výsledkom emotívneho prejavu osobnosti bez minimálneho zhodnotenia následkov a dopadov, ktoré bude mať toto vyjadrenie v spoločnosti alebo na samotný subjekt. V tomto ohľade je preto nevyhnutné konštatovať, že hoci online prostredie a sociálne médiá priniesli zásadný posun v rýchlosti a efektivite zdieľaných informácií, súčasne vytvorili priestor pre šírenie aj nesprávnych či neoverených informácií a správ s výrazným predpokladom zásahu do základných ľudských práv a slobôd a právom chránených záujmov fyzických osôb (Mills, 2022). Ak pritom zohľadníme imanentný charakter elektronického ústneho podania informácií ako online nástroja zdieľania poznatkov získaných vlastnou skúsenosťou a nadväzovanie kontaktov bez potreby zapojenia dotknutých subjektov, o ktorých v predmetných informáciách ide, vytvára sa vlastný neriadený a nezastaviteľný ekosystém informácií, ktorého účastníkom môže byť každý a každý sa môže podieľať aj na jeho budovaní či rozširovaní, nielen vlastný účastník konkrétnej formy vzdelávania. Do popredia sa tak neraz dostávajú extrémne či neakceptovateľné názory a myšlienky, ktoré nemajú v demokratickej spoločnosti miesto, pričom sú často sprevádzané vulgárnym jazykom a snahou o zjavné vytvorenie zásahu do súkromného života osoby, voči ktorej takéto vyjadrenie smeruje, alebo snahou o poškodenie dobrého mena a povesti produktu či služby, voči ktorým má táto osoba vytvorený negatívny vzťah. Vo všetkých prípadoch je preto spoločným menovateľom absencia uvedomenia si minimálnej miery zodpovednosti a prípadných následkov, ktoré môžu mať svoju relevanciu v normách občianskeho alebo trestného práva. Napriek skutočnosti, že sa teda bude pôvodca informácií brániť slobodou vyjadrovania sa a právom na vyslovenie vlastného názoru, toto subjektívne presvedčenie nemá vplyv na právnu kvalifikáciu jeho konania podľa objektívnych noriem právneho poriadku vrátane prípadne uloženej sankcie, a to aj v rámci povinnosti náhrady ujmy, ak by postihnutému subjektu vznikla.

Právna úprava i súdne rozhodnutia totiž explicitne stanovili kritériá pre určenie vzniku zodpovednosti za vyjadrovanie sa, ktoré nespadá pod extenzívny výklad slobody vyjadrovania sa, a pri použití testu proporcionality stanovili hmotnoprávne podmienky, pri ktorých preváži právo na ochranu súkromného a rodinného života fyzickej osoby nad slobodou vyjadrovania sa a právom na vyjadrenie sa určitou formou a obsahom (Valentová, Žuľová, Švec, 2018). V prípade fyzickej osoby podľa názoru Najvyššieho súdu SR právo na súkromie spočíva v práve fyzickej osoby samostatne sa rozhodnúť podľa vlastného uváženia, či a v akom rozsahu majú byť skutočnosti z jej súkromného života sprístupnené iným alebo zverejnené. O porušenie práva na ochranu súkromia ide nielen v prípade neoprávneného získavania vedomostí a poznatkov o súkromí fyzickej osoby, ale aj v prípade neoprávneného rozširovania týchto poznatkov a vedomostí (NS SR, 3Cdo/137/2008). Obdobne ako v prípade právnickej osoby je nevyhnutné podľa názoru Najvyššieho súdu SR (NS SR, 1Cdo/144/2018) vždy skúmať, najmä ak je predmetom posudzovania súlad hodnotiaceho úsudku s právnou úpravou, na základe akých informácií bol tento osobou dôvodený, čo bolo primárnym cieľom poskytnutia týchto informácií, či sa tieto informácie v celom rozsahu zakladajú na pravdivých základoch ako celku, alebo len určitej časti, a súčasne je nevyhnutné vyhodnotiť kolíziu slobody prejavu tejto osoby s právom právnickej osoby na ochranu dobrej povesti a hospodárskeho postavenia na trhu.

Akékoľvek vyjadrovanie sa zo strany fyzických osôb, osobitne vyjadrovanie sa prostredníctvom sociálnych sietí, má teda priamy a bezprostredný vplyv na súkromie jednotlivca a právna úprava má preto aj jednoznačne interdisciplinárny charakter, dokonca bez ohľadu na skutočnosť, či tieto vyjadrenia boli napr. prezentované na súkromných sociálnych sieťach, alebo boli prezentované ako súčasť oficiálnych verejných profilov profesijných sociálnych sietí (Marsoof, 2011). Komunikáciu, ktorá prebieha iba s jedným používateľom, bez toho, aby ju iní používatelia mohli vidieť alebo do nej zasahovať, Najvyšší súd SR označil za rýdzo súkromnú. Z právneho hľadiska je teda rozhodujúce posúdenie prejavov a vyjadrení sa pôvodcu informácií, ktoré majú alebo môžu mať poškodzujúci alebo difamujúci charakter. Kľúčový prvok pritom predstavuje záver, či tieto informácie boli v zmysle uvedeného komunikované voči inej osobe v súkromnej komunikácii, alebo boli prezentované na síce súkromnej sociálnej sieti, ale s možnosťou, aby sa s komunikovanými informáciami oboznámili aj iní používatelia sociálnej siete, a spôsobili tak napr. zjavný zásah do súkromia inej fyzickej osoby v skupine viacerých alebo mnohých používateľov sociálnej siete.

Sloboda prejavu (vyjadrovania sa) patrí do druhej generácie základných ľudských práv a slobôd a právnu ochranu (garanciu) nachádza v čl. 26 Ústavy SR a v čl. 10 Dohovoru o základných ľudských právach a slobodách, ktorými je Slovenská republika viazaná. Tieto úpravy nezakotvujú neobmedzenú slobodu prejavu, ale ich interpretácia zohľadňuje tri kritériá obmedzenia práva na slobodu prejavu. Podľa prvého kritéria je obmedzenie možné iba zákonom, druhé a tretie kritérium stanovuje podmienky, ktoré musia byť splnené na to, aby bolo obmedzenie možné („nevyhnutnosť v demokratickej spoločnosti" a „účel ochrany práv a slobôd iných, bezpečnosti štátu, verejného poriadku, ochrany verejného zdravia a mravnosti") (Drgonec, 2012). Články 19 a 26 Ústavy SR vyjadrujú základné ústavné hodnoty právneho poriadku Slovenskej republiky ako demokratického právneho štátu. Pre demokraciu, chápanú ako vládu ľudu, ľuďom a pre ľud, je životnou nutnosťou šírenie informácií, myšlienok a názorov, či už pochvalných alebo kritických, aby bola verejnosť zásobená všetkými dostupnými faktami nevyhnutnými na vyvolanie kvalitnej debaty o veciach celospoločenského záujmu a následného utvárania názorov jednotlivcov alebo na dosiahnutie konsenzu o konaní a obstarávaní vecí celospoločenského záujmu. Sloboda prejavu však nie je bezbrehá, ústavne zaručené právo vyjadrovať svoje názory je obsahovo obmedzené právami iných, najmä právami uvedenými v čl. 19 Ústavy SR. Kolízia oboch práv (sloboda vyjadrovania sa a právo na súkromný a rodinný život, resp. právo na ochranu dobrej povesti) sa realizuje práve napríklad pri aplikácii § 11 a nasl. Občianskeho zákonníka v súvislosti s uplatňovaním občianskoprávnej ochrany osobnosti. Popísaný konflikt vo vnútri systému základných práv a slobôd treba riešiť prostredníctvom zásady spravodlivej rovnováhy (porovnaj ÚS SR, 22/06; ÚS SR, 6/04; ÚS SR, 34/07). Pre aplikáciu ustanovenia § 11 a nasl. i § 19b ods. 3 Občianskeho zákonníka má neodmysliteľný význam čl. 10 Dohovoru o ochrane ľudských práv a slobôd, ktorý jednoznačne ako prioritné preferuje právo na slobodu prejavu. Uplatňuje sa nielen vo vzťahu k „informáciám" a „myšlienkam", ktoré sa prijímajú priaznivo, resp. sa pokladajú za neurážlivé a neutrálne, ale aj k tým, ktoré urážajú, šokujú alebo znepokojujú štát alebo časť obyvateľstva.

Ustanovenia Občianskeho zákonníka teda nemožno aplikovať izolovane, ale je nutné ich vykladať a aplikovať v súlade s Ústavou SR. Nutnosť zohľadniť slobodu prejavu, samozrejme, neznamená rezignáciu na ochranu osobnosti (Drgonec, 2013). Znamená to však, že v niektorých prípadoch musí byť uprednostnená sloboda prejavu, aj keď daný prejav môže mať isté nedostatky z hľadiska klasickej zákonnej ochrany osobnosti (ÚS SR, 448/2012). Zníženie dôstojnosti osoby alebo jej vážnosti v spoločnosti v značnej miere nemusí exaktne vôbec nastať, aby bolo úspešne uplatnené právo na ochranu osobnosti, ale bude k nemu postačovať, ak zásah bol objektívne spôsobilý znížiť dôstojnosť osoby alebo jej vážnosť v spoločnosti v značnej miere. Spoločnosť v zmysle § 13 ods. 2 Občianskeho zákonníka je chápaná širšie (KS v Bratislave, 14Co/58/2020). Zníženie dôstojnosti fyzickej osoby alebo jej vážnosti v spoločnosti stačí súdu len predpokladať bez nutnosti dokazovania konkrétnych následných reakcií vyvolaných neoprávneným zásahom.

Právny režim ochrany práva na súkromie, do ktorého možno zasiahnuť aktívnym či pasívnym konaním prostredníctvom vyjadrovania sa na sociálnych médiách, jednoznačne preukazuje prípustnosť vzniku zodpovednosti fyzickej alebo právnickej osoby, ktorá takýto zásah uskutočnila. Relevantným pre vyvodenie zodpovednosti je neskoršie určenie právneho statusu takejto osoby, t. j. či príde ku kumulácii vzniku rôznych zodpovednostných vzťahov a následne k vyvodzovaniu príslušných sankcií v rámci právneho režimu (teda občianskoprávnej, pracovnoprávnej alebo trestnoprávnej zodpovednosti). Povinnosťou súdov v takýchto prípadoch je interpretovať jednotlivé zákonné ustanovenia v prvom rade z hľadiska účelu a zmyslu ochrany ústavne garantovaných práv a slobôd. V konkrétnom prípade je vždy nevyhnutné skúmať mieru (intenzitu) tvrdeného porušenia základného práva na ochranu osobnosti, a to práve v kontexte so slobodou prejavu a s právom na informácie a so zreteľom na požiadavku proporcionality uplatňovania týchto práv (KS v Bratislave, 5Co/146/2021). Ak ide o posúdenie obmedzenia prejavu slobody ako opatrenia v demokratickej spoločnosti, toto sa posudzuje v každom konkrétnom prípade individuálne. Berie sa pritom ohľad na obsah prejavu a záujem verejnosti o danú vec, či a prečo je pre spoločnosť významné vedieť obsah prejavu (KS v Banskej Bystrici, 11Co/1/2022).

Občiansky zákonník poskytuje v § 13 ochranu osobnosti len v prípade takého porušenia občianskej cti, ktoré predstavuje zásah do osobnosti človeka, pričom tento zásah musí byť objektívne spôsobilý privodiť takúto ujmu. Popri práve na ochranu života, zdravia, občianskej cti, svojho mena a prejavov osobnej povahy sem možno zaradiť aj právo na ochranu ľudskej dôstojnosti, osobnej cti, dobrej povesti, súkromného a rodinného života (garantované v článku 19 Ústavy SR). Jednou z najvýznamnejších hodnôt osobnosti každého človeka je osobné súkromie občana, ktoré je širokospektrálne a tomuto rozsahu zodpovedá aj poskytovaná ochrana. Predpokladmi úspešného uplatnenia práva na ochranu osobnosti je tak skutočnosť, že došlo k neoprávnenému zásahu a tento zásah je objektívne spôsobilý privodiť ujmu na právach chránených ustanovením § 11 a nasl. Občianskeho zákonníka. Obe náležitosti musia byť splnené, aby vznikol právny vzťah, ktorého obsahom je právo domáhať sa ochrany. Existencia zásahu objektívne spôsobilého vyvolať nemajetkovú ujmu spočíva v porušení alebo ohrození osobnosti fyzickej osoby v jej morálnej integrite.

Pod neoprávneným zásahom voči fyzickej osobe možno rozumieť konanie smerujúce proti osobnej a mravnej integrite fyzickej osoby, ktoré je objektívne spôsobilé znížiť jej dôstojnosť, vážnosť a česť, a ktoré ohrozuje jej postavenie a uplatnenie v spoločnosti. Neoprávneným zásahom je aj každé nepravdivé tvrdenie alebo obvinenie zasahujúce práva fyzickej osoby chránené v zmysle ustanovenia § 11 Občianskeho zákonníka (Valentová, Golais, Birnstein, 2018). Neoprávnený zásah do osobnosti fyzickej osoby možno vyvolať uverejnením nepravdivých údajov týkajúcich sa jej povesti. Taktiež ho možno vyvolať uverejnením aj pravdivých údajov, ktoré ale majú v takom prípade osočujúcu povahu, pôsobia difamačne a vyvolávajú znevažujúci dojem. Neoprávnený zásah možno vyvolať aj pravdu skresľujúcimi údajmi, pričom takéto údaje nie sú samy osebe nepravdivé, ale forma ich podania a súvislosti, za ktorých boli podané, môžu viesť k skresleniu informácie podávanej verejnosti. Napokon neoprávnený zásah možno vyvolať tiež uverejnením hodnotiacich úsudkov (kritiky), pokiaľ tieto vybočujú z hraníc vecnosti, konkrétnosti a primeranosti (KS v Banskej Bystrici, 11Co/1/2022).

Podstatnou podmienkou uplatneného nároku je okolnosť, že zásah je neoprávnený, teda protiprávny. K zásahom do popísaných druhov práv môže dôjsť slovom, písmom, obrazom i akýmkoľvek iným konaním difamujúcej (zneucťujúcej, znevažujúcej, dehonestujúcej, diskreditačnej) povahy. Ak k takému porušeniu malo dôjsť slovom, treba pri skúmaní primeranosti konkrétnych výrokov v prvom rade odlíšiť, či ide o skutkové tvrdenie alebo hodnotiaci úsudok (kritiku), pretože podmienky kladené na prípustnosť každej z týchto kategórií sa líšia. Skutkové tvrdenia sa opierajú o fakty, objektívne existujúcu realitu, ktorá je zistiteľná pomocou dokazovania, pravdivosť tvrdenia je teda overiteľná. Na rozdiel od skutkového tvrdenia hodnotiaci úsudok vyjadruje subjektívny názor svojho autora, ktorý k danému faktu zaujíma určitý postoj tak, že ho hodnotí z hľadiska správnosti a prijateľnosti, a to na základe vlastných (subjektívnych) kritérií (KS v Bratislave, 7Co/4/2021).

Skutkové tvrdenia majú teda objektívnu povahu a je možné ich overiť. V skutkovom tvrdení ide o konštatovanie určitých skutočností, o empiricky overiteľné fakty. Naproti tomu hodnotiace úsudky sú vždy subjektívne, sú názorom toho, kto hodnotiaci úsudok vynáša.

Zatiaľ čo existenciu faktov (skutkových tvrdení) je možné preukázať, vo vzťahu k hodnotiacim úsudkom nemožno naplniť požiadavku dokázať ich pravdivosť. Hodnotiace úsudky skutočnosť viac-menej voľne interpretujú. Hodnotiaci úsudok ako kritika neexistuje ako kritika objektívna, ale iba ako kritika vecná a nevecná. V hraničných a sporných prípadoch môžu existovať aj tzv. hybridné výroky, čiže jeden výrok môže obsahovať atribút skutkového tvrdenia, ako aj atribút hodnotiaceho úsudku. Posudzovaný výrok musí byť hodnotený v širšom kontexte, pričom rozhodujúce bude celkové vyznenie konkrétneho prejavu. Hodnotiaci úsudok požíva z hľadiska slobody prejavu intenzívnejšiu ochranu ako skutkové tvrdenie (tvrdenie faktov). Pre akceptovateľnosť hodnotiaceho úsudku je preto postačujúce, ak má určitý základ (KS v Banskej Bystrici, 11Co/1/2022).

Je rovnako potrebné rozlišovať medzi kritikou a neoprávneným zásahom, pričom rozdiel medzi nimi treba vidieť v rozhodujúcom hľadisku pravdivosti, hodnovernosti, objektívnosti a cieli, ktorý sa konkrétnym prejavom sleduje. Zákonná ochrana je daná len vtedy, ak vytýkané prejavy sú zásadne nepravdivé alebo pravdu skresľujúce. Kritika nie je neoprávnená, ak nie sú prekročené medze vecnej kritiky (opierajúce sa o pravdivé skutočnosti a z nich vyplývajúce závery, ktoré tieto skutočnosti odôvodňujú) a ak je primeraná obsahom aj formou (NS SR, R/103/1967). Ak má ísť o kritiku prípustnú alebo oprávnenú, musí byť táto kritika vecná, konkrétna a primeraná čo do obsahu a formy a nesmie vybočovať z hraníc nutných na dosiahnutie cieľa. Vecná kritika je chápaná tak, že vychádza z reálnych či pravdivých podkladov a z týchto potom vyvodzuje zodpovedajúce závery pre hodnotiaci úsudok. Konkrétnosť kritiky znamená, že je založená na konkrétnych skutočnostiach bez vyvodzovania všeobecných záverov. Kritika spoločenských javov je nielen dovolená, ale aj potrebná. Iné je však posúdenie toho, či v konkrétnej veci ide o kritiku, alebo či uvádzané skutočnosti už za kritiku nemožno považovať. Treba zároveň uviesť, že v rámci kritiky podľa okolností a povahy konkrétneho prípadu možno pripustiť určitú mieru zveličovania, ironizovania či použitia relatívne ostrejších výrazov, ktoré by mohli byť za iných okolností považované za urážlivé. Za kritiku nemožno pokladať tvrdenia alebo názory, ktorých výsledok nemožno vyvodiť zo skutkových okolností uvádzaných v opisovanom skutkovom deji (NS SR, 3Cdo/61/2000).

Ak budeme posudzovať konkrétne dopady vyjadrení sa na sociálnych médiách (teda nielen samotné uvádzanie nesprávnych alebo nepravdivých informácií, ale aj konanie laicky nazývané hejtovanie alebo trollovanie), musíme vždy identifikovať vzťah, v ktorom sa pôvodca informácií a dotknutý subjekt, o ktorom sú informácie zdieľané, nachádzajú a následne uplatniť príslušný právny rámec vyvodenia zodpovednosti voči pôvodcovi informácií. Hodnotiaci úsudok preto nemožno akokoľvek dokazovať, je však nutné skúmať, či sa zakladá na pravdivej informácii, či je forma jeho prezentácie primeraná a či zásah do osobnostných práv je nevyhnutným sprievodným javom výkonu kritiky, teda či primárnym cieľom nie je hanobenie a zneuctenie danej osoby (NS ČR, 30Cdo/608/2007). Za vecnú kritiku nie je považovaná kritika, ktorá vychádza z nepravdivých podkladov alebo z nich vyvodzuje vlastné hodnotiace úsudky. Ak je takto vytvorený hodnotiaci úsudok znevažujúci, nie je takáto kritika prípustná. Za neprimeranú kritiku spôsobilú zasiahnuť do práva na ochranu osobnosti fyzickej osoby je možné označiť aj kritiku, pri ktorej k popisu javov alebo osôb sú použité neprimerané expresívne výrazy, ktorých úmyslom je kritizovanú osobu znevážiť alebo uraziť (NS ČR, 25Cdo/3423/2018). Ak je však aj pravdivá informácia podaná takým spôsobom, že skresľuje skutočnosť, môže pôsobiť difamačne a nebude považovaná za primeranú (ÚS SR, 211/08). Zásahom do dobrej povesti právnickej osoby pritom môže byť aj kritika, ak táto presiahla rámec oprávnenej kritiky (NS SR, 4Cdo/212/2007).

Právne prostriedky nápravy zásahu do osobnostných práv vyplývajú z ustanovenia § 13 ods. 1 Občianskeho zákonníka, podľa ktorého fyzická osoba má právo domáhať sa, aby sa upustilo od neoprávnených zásahov do jej práva na ochranu osobnosti, aby sa odstránili následky takýchto zásahov a aby jej bolo dané primerané zadosťučinenie (KS v Banskej Bystrici, 11Co/1/2022). Primeranosť znamená, že zadosťučinenie má zodpovedať podstate zásahu, zasiahnutej osobnostnej sfére a tiež okolnostiam a dôsledkom zásahu. Občiansky zákonník neuvádza, akú intenzitu „vyžaduje". Tohto práva sa osoba môže domáhať najmä v prípade, ak bola v značnej miere znížená dôstojnosť osoby alebo jej vážnosť v spoločnosti. Občiansky zákonník nedefinuje ani čo znamená zníženie dôstojnosti v značnej miere alebo zníženie vážnosti v spoločnosti v značnej miere. V praxi súdov sa spravidla pri difamujúcich zásahoch najnižšieho stupňa intenzity (pokiaľ sú, samozrejme, splnené všetky predpoklady pre vznik zodpovednosti za zásah do osobnosti) ako primerané volí ospravedlnenie. „Závažnosť" ujmy alebo „zníženie dôstojnosti v značnej miere" spája § 13 ods. 2 Občianskeho zákonníka s prípadmi (situáciami), v ktorých sa nerelutárne zadosťučinenie v zmysle § 13 ods. 1 Občianskeho zákonníka javí ako nepostačujúce (KS v Bratislave, 7Co/25/2019). Za základné kritérium pre rozhodovanie o priznaní primeraného zadosťučinenia možno označiť právny názor Ústavného súdu SR (ÚS SR, 15/02), podľa ktorého priznanie primeraného finančného zadosťučinenia ako náhrady nemajetkovej ujmy vyjadrenej v peniazoch prichádza do úvahy predovšetkým v tých prípadoch, keď porušenie základného práva alebo slobody nie je možné napraviť.

3 ZÁVER

V zásade nemožno identifikovať žiadny právny alebo mimoprávny mechanizmus, ktorý by dokázal efektívne brániť takému konaniu účastníkov online komunikácie alebo procesu vzdelávania, ktorým zasahujú neoprávnene do základných ľudských práv a slobôd iných fyzických osôb, osobitne do práva na súkromný a rodinný život. Jediným a pravdepodobne aj najúčinnejším prostriedkom bude dosiahnutie samoregulácie správania sa týchto osôb tak, že tomuto stavu bude predchádzať intenzívne vzdelávanie o uvedených skutočnostiach v spoločenskom i právnom rozmere, teda vzdelávanie účastníkov o tom, akým spôsobom môžu zasiahnuť do práva inej fyzickej osoby pri svojich prejavoch v podobe napr. elektronického ústneho podania informácie a súčasne, aká je právna kvalifikácia takéhoto ich prejavu. V dôsledku poznania tohto právneho rámca môžu následne sami zvážiť, či upravia svoje vyjadrenia do podoby konformnej s príslušnou právnou úpravou alebo sa vystavia možnosti uplatnenia právnych prostriedkov na ochranu základných ľudských práv a slobôd zo strany dotknutých subjektov, samozrejme s možnosťou prípadného vzniku nároku na náhradu nemajetkovej ujmy v závislosti od intenzity neoprávneného zásahu. Paradoxne, len samotné vzdelávanie všetkých členov spoločnosti je spôsobilé privodiť vylúčenie nonkonformných prejavov, pretože iná forma regulácie s ohľadom na neregulovaný svet online komunikácie je v zásade vylúčená. Snažiť sa o reguláciu prejavov v prostredí, ktoré samo v sebe implikuje chaos a pocit „neobmedzenej" slobody, je skôr utópia ako premyslený plán so stanoveným výsledkom.

Vedecký príspevok bol vypracovaný v rámci riešenia projektu Kultúrnej a edukačnej grantovej agentúry Ministerstva školstva, výskumu, vývoja a mládeže Slovenskej republiky (KEGA, č. 025UCM-4/2023) s názvom „Riziká a príležitosti (online) vzdelávania v čase technologickej interferencie".

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HOW TO TEACH ENGLISH LINGUISTIC BORROWINGS IN SLOVAK: A METHODOLOGICAL TREATISE

Alexandra Mandáková

Abstract

English loanwords are a dynamic and visible part of contemporary vocabulary, particularly in technology, business, youth culture, and digital communication. Their growing presence creates both opportunities and challenges for English language teachers in Slovakia. The paper proposes a structured pedagogical approach to teaching English loanwords in Slovak, grounded in language awareness, intercultural competence, and communicative methodology. Drawing on knowledge from English teacher education, which emphasises linguistic, intercultural and methodological preparation, we outline practical classroom strategies, sample exercises and recommendations for integrating loanwords into teaching. The aim is for students to understand the origins, adaptation processes, meanings and contexts of use of English loanwords in Slovak and to strengthen their overall language awareness and communicative competence.

Keywords: *English borrowings; Slovak language; language pedagogy; linguistic interference; intercultural competence; English teacher education in Slovakia; lexical adaptation; contrastive linguistics; vocabulary teaching.*

INTRODUCTION

English has become the dominant global source of lexical borrowing, and Slovak — like many European languages — has absorbed a significant number of English loanwords. Words such as *smartfón*, *manažér*, *hejtovať*, *lajknúť*, *biznis*, *dizajn* and many others have become part of everyday communication. For Slovak learners of English, these borrowings can be both helpful (because they resemble English equivalents) and misleading (because their meanings or forms may shift in Slovak).

Borrowing is a natural linguistic process that occurs when languages come into contact (Haugen, 1950), but it can also lead to semantic shifts, false friends, and hybrid forms that complicate language learning.

Slovak English-teacher education programs emphasise linguistic analysis, intercultural understanding, and methodological training. These components provide a strong foundation for teaching English borrowings in a systematic and engaging way.

Slovak English-teacher education emphasises linguistic, intercultural, and methodological competence (Kováčiková & Pechočiak, 2021). These components provide a strong foundation for teaching English borrowings systematically and reflectively.

As Thomason and Kaufman (1988) note, understanding borrowing processes enhances learners' awareness of how languages influence one another, making it a valuable pedagogical tool. As linguistic borrowing is both a linguistic and cultural phenomenon, its instruction naturally aligns with the goals of modern language pedagogy.

1 WHY TEACH ENGLISH BORROWINGS EXPLICITLY?

There are at least 3 reasons why we should teach English borrowings explicitly:

A) Linguistic Awareness

Borrowings illustrate phonological adaptation, morphological integration, and semantic shift. For example, hejtovať derives from English hate, but its Slovak usage has expanded into a productive verb form.

B) Intercultural Competence

Borrowings reflect cultural influence and globalisation. Discussing them helps students understand how English-speaking cultures shape Slovak communication patterns.

C) Communicative Competence

Learners who understand the differences between Slovakized forms and standard English avoid miscommunication and develop greater register sensitivity.

1.1 Methodological Principles for Teaching Borrowings

In this subchapter, we present four basic methodological principles for teaching borrowings:

A) Contrastive Linguistic Approach

A contrastive approach allows students to compare Slovak borrowings with their English originals in terms of form, pronunciation, meaning, and usage. This method is supported by research showing that explicit comparison enhances metalinguistic awareness.

B) Corpus-Based and Authentic Materials

Authentic materials—such as advertisements, social media posts, and news articles—provide real examples of borrowings in context. Corpus-based activities help students observe frequency and usage patterns.

C) Task-Based Learning

Task-based learning encourages students to analyse, categorise, and use borrowings in communicative tasks. This aligns with the methodological principles emphasised in Slovak teacher education (Kováčiková & Pechočiak, 2021).

D) Intercultural Reflection

Students reflect on why the Slovak language adopts English words and how this shapes identity and communication. Such reflection supports intercultural competence development.
Borrowings reflect cultural contact and global influence. Teachers should be prepared to:
discuss the cultural motivations behind borrowing, address attitudes toward Anglicisms,
and foster critical reflection on language and identity.

1.2 Sample Classroom Exercises

Here we offer some sample classroom exercises for the casual teaching and learning practice:

Exercise Set 1: *Identification and Classification*

Spot the Borrowings: Students underline English borrowings in a Slovak text.

Categorise Borrowings: Students classify borrowings by domain (technology, business, pop culture).

Determine Adaptation Type: Students identify phonological, morphological, or semantic changes.

Exercise Set 2: *Contrastive Analysis*

Compare Slovak vs. English Forms: Students complete a comparison table.

Pronunciation Workshop: Students practice pronouncing English originals and compare them with Slovakized forms.

Exercise Set 3: *Creative Production*

Borrowing Detective: Students research the origin and meaning of selected borrowings.

Mini-Dictionary: Students create a dictionary of English borrowings in Slovak.

Debate: Students debate whether English borrowings enrich or damage Slovak.

2 EXERCISE IDEAS FOR ANGLICISMS IN THE SLOVAK LANGUAGE

In this chapter, we offer particular examples of three possible types of exercise ideas for teaching Anglicisms in Slovak:

1. ***Spot the Anglicism***

Provide a short Slovak text (e.g., a news article, social media post).
Task: Highlight all words that are borrowed from English.
Example text:
„Včera som si updatovala appku, aby som mala nový design."
→ Anglicisms: updatovala, appku, design

2. ***Find the Slovak Equivalent***

Give learners a list of anglicisms and ask them to suggest Slovak alternatives.
Example list: meeting, feedback, deadline, influencer
Possible Slovak equivalents: stretnutie, spätná väzba, termín, ovplyvňovateľ

3. ***Contextual Usage***

Present sentences with anglicisms and ask learners to rewrite them using Slovak words.
Example:
„Máme call s klientom o tretej."
Rewrite: „Máme hovor s klientom o tretej."

3 RECOMMENDATIONS FOR TEACHERS

Teachers should integrate borrowings into vocabulary and sociolinguistic lessons, encourage critical thinking about language change, use authentic materials, highlight differe3. of register and appropriateness. These practices align with the linguistic and methodological preparation emphasised in Slovak teacher education (Kováčiková & Pechočiak, 2021).

3. 1 Linguistic Awareness

Borrowings illustrate phonological adaptation, morphological integration, and semantic shift. For example, hejtovať derives from English hate, but its Slovak usage has expanded into a productive verb form. Such adaptations reflect what Haspelmath (2009) describes as "lexical accommodation," where borrowed.

3.2 Linguistic Competence

Teachers should understand the following issues concerning linguistics: the mechanisms of borrowing, phonological and morphological adaptation, semantic shifts, and cross-linguistic influence. This knowledge enables them to guide students through contrastive analysis and error correction.

3.3 Methodological Competence

Teachers need the next strategies for their successful pedagogical process:
designing tasks involving authentic materials, integrating borrowings into communicative activities, and fostering metalinguistic reflection.
These methodological skills align with the competencies outlined in Slovak teacher-education programs.

4 DISCUSSION

Teaching English linguistic borrowings in Slovak classrooms is not merely a vocabulary-building exercise; it is a multifaceted pedagogical opportunity that touches on linguistic theory, sociolinguistics, intercultural communication, and language awareness. Borrowings are ideal for illustrating how languages evolve through contact, a process well-documented in linguistic scholarship (Haugen, 1950; Thomason & Kaufman, 1988).

When students analyse borrowings, they engage directly with real linguistic data, which strengthens their analytical skills and deepens their understanding of both English and Slovak.
From a pedagogical perspective, borrowings offer a natural bridge between students' everyday linguistic experiences and formal language instruction. Many Slovak learners already use English-derived words unconsciously in daily communication. By bringing these items into the classroom, teachers validate students' linguistic realities and create a more meaningful learning environment. This aligns with the learner-centred, communicative orientation emphasised in Slovak teacher education (Kováčiková & Pechočiak, 2021).
Another important dimension is pronunciation. Borrowings often undergo phonological adaptation to fit Slovak phonotactics, which can lead to fossilised mispronunciations when learners attempt to use the English originals. Explicit instruction can help students distinguish between the Slovakized form (džús) and the English pronunciation (juice), reinforcing phonological awareness.

5 CONCLUSION

English linguistic borrowings are an integral part of modern Slovak communication and, therefore, a valuable teaching resource. By incorporating contrastive analysis, intercultural reflection, and communicative tasks, teachers can help learners understand how English influences Slovak and how Slovak adapts English words. This approach strengthens linguistic awareness and enhances students' ability to navigate both languages confidently. Teaching borrowings aligns with the broader goals of Slovak English teacher education, which emphasise linguistic and methodological competence.
Furthermore, borrowings provide a rich context for discussing semantic change. As Haspelmath (2009) notes, borrowed words often undergo shifts in meaning as they adapt to the recipient language. For example, the Slovak word for "event" is frequently used to mean "party" or "social gathering," whereas in English it has a broader semantic range. Highlighting such differences helps learners avoid false friends and develop more precise communicative competence.
Finally, borrowings offer a valuable entry point into intercultural reflection. Students can explore why certain English words become fashionable in Slovak, how they relate to identity and prestige, and what they reveal about cultural trends. This supports the development of intercultural competence, a key component of modern language education.

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ANGLICISMS IN SLOVAK AND GERMAN: TEACHING LEXICAL BORROWING THROUGH LINGUISTIC AWARENESS ACTIVITIES

Alexandra Mandáková

Abstract

English has become a dominant global lingua franca, influencing languages across Europe, including Slovak and German. This article examines English lexical borrowings—anglicisms—in both languages from a teaching-and-learning perspective. Drawing on established theories of language contact (Haugen 1950; Weinreich 1953; Thomason & Kaufman 1988) and research on English influence in Europe (Onysko 2007; Crystal 2003), the article presents pedagogical activities designed to develop learners' linguistic awareness, morphological understanding, and sociolinguistic sensitivity. By comparing Slovak and German, two typologically distinct languages with different historical relationships to English, the article demonstrates how anglicisms can serve as practical tools for teaching vocabulary, morphology, language attitudes, and critical language awareness.

Keywords: *Anglicisms; lexical borrowing; Slovak language; German language; language contact; morphological adaptation; linguistic awareness; language pedagogy; English as a lingua franca language; sociolinguistics; vocabulary teaching; globalisation and language change*

1 INTRODUCTION

English plays a central role in contemporary European multilingualism, influencing both Slovak and German vocabulary. Because anglicisms are highly visible in digital communication, youth culture, and technology, they offer valuable teaching opportunities. This article outlines how anglicisms can be used to promote linguistic awareness and compares how Slovak and German integrate English borrowings.

Borrowing is a natural linguistic process that occurs when languages come into contact (Haugen, 1950), but it can also lead to semantic shifts, false friends, and hybrid forms that complicate language learning.

Slovak and German provide an instructive comparison:

Slovak, a Slavic language with a rich inflectional system, often adapts English borrowings morphologically (e.g., *updatovať*, *meetingy*, *followeri*).

German, a Germanic language more closely related to English, often integrates borrowings with minimal morphological change (e.g., *downloaden*, *das Team*, *der Laptop*), though hybrid forms also occur (Onysko, 2007).

This article integrates linguistic theory with practical classroom activities to help learners understand how and why anglicisms enter Slovak and German, how they are adapted, and what sociolinguistic meanings they carry. As Thomason and Kaufman (1988) state, understanding borrowing processes enhances learners' awareness of how languages influence one another, making it a valuable pedagogical tool.

2 THEORETICAL BACKGROUND

Borrowing is a common outcome of language contact. Haugen (1950) distinguishes between loanwords, loanblends, and loanshifts, while Weinreich (1953) emphasises the role of bilingualism. English's global prestige (Crystal, 2003) accelerates borrowing in both Slovak and German.

Morphological integration differs across languages. Slovak, with its rich inflectional system, typically adapts borrowings (*updatovať*, *meetingy*). German often preserves English forms but adds German morphology (*gepostet*, *gedownloadet*) (Onysko, 2007). These contrasts make Slovak and German ideal for comparative teaching.

2.1 Lexical Borrowing

In this subchapter, we present kinds of borrowings according to Haugen (1950), who defines borrowing as the adoption of linguistic material from one language into another.

Borrowings may be:

A) **loanwords** (e.g., software, team)

B) **loanblends** (e.g., German downloaden, Slovak updatovať)

C) **loanshifts** (semantic extensions influenced by English, e. g., *Stiahni si aplikáciu* (new meaning, receive **English-influenced meaning:** become-bekommen, with the original meaning**:** receive (false friend influence from English *become, Ich bekomme müde (incorrect, English-influenced)*).

Weinreich (1953) emphasises that borrowing is shaped by bilingualism and the intensity of language contact, while Thomason and Kaufman (1988) highlight the role of social factors such as prestige and cultural influence.

2.2 Anglicisms in the Slovak and German languages

Slovak-language speakers commonly use anglicisms such as *software*, *influencer*, and *brainstorming*, alongside adapted forms like *followeri* or *updatovala*. German-language speakers use anglicisms such as *das Team*, *das Meeting*, *der Laptop*, and hybrid verbs like *posten* or *liken*. The degree of adaptation reflects typological differences: Slovak requires inflectional integration, while German allows more direct borrowing. Haspelmath (2009) describes this as morphological nativisation, a key concept for teaching how languages adapt foreign material.

3 ENGLISH AS A GLOBAL DONOR LANGUAGE-LINGUA FRANCA

English's global dominance (Crystal, 2003) has led to widespread borrowing across Europe. In both Slovak and German, English is associated with technology, business and marketing, international communication, and youth culture, and has become the lingua franca; therefore, English influences the use of anglicisms and linguistic borrowings across many languages, including Slovak and German.

4 PEDAGOGICAL VALUE OF COMPARISON

When comparing the Slovak and German languages concerning the use of anglicisms, learners may see the following factors:

A) how typology influences borrowing

B) how morphology shapes adaptation

C) how sociolinguistic attitudes differ across cultures.

This comparative approach strengthens students' metalinguistic awareness as various linguistic borrowings illustrate morphological integration, phonological adaptation, and semantic shift. For example, *hejtovať* derives from English hate, but its Slovak usage has expanded into a productive verb form. Such adaptations reflect what Haspelmath (2009) describes as "*lexical accommodation*," where borrowed.

4.1 Linguistic Awareness Activities

In this subchapter, we offer six types of possible linguistic awareness activities for students of both languages, Slovak and German, to be able to distinguish the basic differences in the formation and usage of anglicisms:

A) **Identifying Anglicisms**
Students' task is to underline anglicisms in Slovak and German sentences. This builds awareness of English influence in everyday communication.

B) **Morphological Analysis**
Students analyse how borrowed words adapt to Slovak and German morphology (e.g., *updatovala* vs. *gepostet*). This reinforces understanding of inflectional systems.

C) **Matching Borrowed and Native Equivalents**
Students compare anglicisms with native alternatives (e.g., Slovak *príspevok*, German *Beitrag*). This encourages reflection on register and stylistic choice.

D) **Rewriting Sentences**
Learners' task is to replace anglicisms with native terms, strengthening vocabulary and stylistic awareness.

E) **Linguistic Borrowing Classification**
Students categorise examples as direct borrowings, adapted borrowings, or hybrids, applying theoretical terminology.

F) **Sociolinguistic Reflection**
Discussion prompts explore why speakers use anglicisms, how naturalised they feel, and what they signal about identity and globalisation.

5 PEDAGOGICAL ACTIVITIES FOR TEACHING DEALING WITH ANGLICISMS IN SLOVAK AND GERMAN

In this chapter, we present specialised activities for students when dealing with anglicisms in both Slovak and German. The emphasis we put on the learning goals of each task.

5.1 Activity 1: Identifying Anglicisms in Context

Learning goal: Develop awareness of English influence.

Slovak examples: Máme *brainstorming* s naším teamom.

Potrebujem *update* na aplikáciu.

German examples: Wir haben heute *ein Meeting* mit *dem Team*.

Ich brauche *ein Update* für *die Software*.

Students´ task is to underline anglicisms and discuss why they are used.

5.2 Activity 2: Morphological Adaptation Analysis

Learning goal: Understand how languages integrate borrowings.

Slovak example: *Updatovala* som systém. → update + -ovala

Followeri reagovali na post. → follower + -i

German example: Ich habe das Foto *gepostet*. → post + ge- + -t

Er hat das Programm *gedownloadet*. → download + ge- + -et

Students here compare adaptation strategies across languages.

5.3 Activity 3: Matching Borrowed and Native Equivalents

Learning goal: Expand vocabulary and explore stylistic choices.

Anglicism (Slovak)	Slovak Equivalent	Anglicism (German)	German Equivalent
brainstorming	tvorivá porada	Meeting	Besprechung
team	tím/družstvo	Team	Mannschaft
post	príspevok	Post	Beitrag

The students´ task is to discuss when native terms might be preferable.

5.4 Activity 4: Rewriting Sentences

Learning goal: Practice register awareness.

Slovak example: Máme *brainstorming* o novej kampani.

Rewrite: Máme *tvorivú poradu* o novej kampani.

German example: Wir haben morgen *ein Meeting* mit dem Team.

Rewrite: Wir haben morgen *eine Besprechung* mit der Mannschaft.

Slovak example: Náš *team* pracuje na novom projekte.

Rewrite: Náš *tím/družstvo* pracuje na novom projekte.

German example: *Der Influencer* hat einen neuen Post hochgeladen.

Rewrite: *Der Einflussnehmer* hat einen neuen Beitrag hochgeladen.

(Note: "Einflussnehmer" is rare but works as a native equivalent for teaching purposes.)

Students rewrite sentences using native equivalents in both languages.

Another example may be: *Brainstorming - Ideenrunde*,

downloaden – herunterladen etc.

5.5 Activity 5: Borrowing Type Categorisation

Learning goal: Apply linguistic terminology.

Students sort examples into:

A) direct borrowings

Slovak examples: *software*, *influencer*, *team*, *post*

German examples: *das Team*, *das Meeting*, *der Laptop*, *der Trend*, *der Browser*

B) adapted borrowings

Slovak examples: (Borrowed English root + Slovak morphological ending)

updatovala (update + -ovala, past tense)

followeri (follower + -I, plural form, animate noun)

meetingy (meeting + -y, plural form, inanimate noun)

postovať (post + -ovať, infinitive)

lajkoval (like + -oval, past tense, phonologically adapted)

German examples: (Borrowed English root + German inflection)

gepostet (post + ge- + -t)

gedownloadet (download + ge- + -et)

geliket (like + ge- + -t)

die Meetings (meeting + German plural -s)

der Manager/in (manager + German feminine suffix -in)

C) hybrid forms

Slovak examples: (English + Slovak elements combined)

online-ový (online + Slovak adjective suffix -ový)

smart-fón (English root + Slovak phonological adaptation)

print-núť (print + Slovak infinitive suffix -núť)

chat-ovanie (chat + Slovak nominalising suffix -ovanie)

German examples: (English + German morphology blended)

downloaden (English root + German infinitive -en)

updaten (update + -en)

der Teamleiter (team + German compound element Leiter)

der Computerraum (computer + German compound element Raum)

das Online-Lernen (online + German noun)

Completing these borrowing-type categorisation tasks reinforces students' theoretical linguistic concepts.

5.6 Activity 6: Sociolinguistic Reflection

Learning goal: Develop students' critical language awareness.

Students may discuss the following discussion prompts:

Why do Slovak and German speakers use anglicisms even when native words exist?

Which anglicisms feel naturalised in each language?

How do attitudes toward anglicisms differ between Slovak and German speakers?

Do anglicisms enrich or endanger linguistic identity?

These questions help learners connect linguistic forms to cultural values and boost their multicultural and multilingual awareness.

6 PEDAGOGICAL IMPLICATIONS

The pedagogical implications of these findings are significant. Because learners encounter anglicisms daily in digital communication, advertising, and youth culture, they provide a natural entry point for developing linguistic awareness. Crystal (2003) notes that "no language has ever been entirely self-contained," and this insight can help students understand that borrowing is not a sign of linguistic decline but a normal part of language evolution. Classroom activities that analyse anglicisms—identifying, categorising, and replacing them with native equivalents—encourage students to reflect on how languages change and why speakers choose certain forms.

At the same time, the sociolinguistic dimension of borrowing must be acknowledged. English often carries symbolic value, indexing modernity, professionalism, or global connectedness. As Preisler (1999) argues, "English functions as a prestige code in many European contexts," which helps explain why speakers may prefer anglicisms even when native alternatives exist. This prestige effect is visible in both Slovak and German, though perhaps more strongly in German corporate and technological discourse.

Moreover, the presence of loanshifts—semantic extensions influenced by English—demonstrates that borrowing is not limited to vocabulary but also affects meaning. Weinreich (1953) famously stated that "the vocabulary of a language is the most sensitive index of the contact between cultures," and the Slovak and German examples of anglicisms (e.g., realizovať/realisieren, komunikovať/kontrollieren) illustrate how English can reshape semantic fields without introducing new lexical forms.

Anglicisms are not merely linguistic curiosities but valuable pedagogical tools. They help learners understand language contact, morphological adaptation, semantic change, and sociolinguistic attitudes. By engaging critically with anglicisms, students develop deeper linguistic awareness and a more nuanced understanding of how Slovak and German evolve in a globalised world.

7 CONCLUSION

Anglicisms provide an accessible entry point for teaching morphology, vocabulary, and sociolinguistic concepts. Comparative analysis of Slovak and German enhances cross-linguistic awareness and helps learners understand how typological features shape borrowing. Using authentic materials, such as advertising, social media, and digital communication, makes instruction relevant and engaging.

From a pedagogical perspective, anglicisms offer a powerful tool for developing linguistic awareness. Because learners encounter English borrowings daily in media, technology, and youth communication, classroom activities that analyse these forms help bridge the gap between academic linguistics and real-world language use. As Crystal (2003) notes, "no language has ever been immune to the influence of others," and teaching students to recognise and evaluate such influence fosters critical reflection on language change, identity, and globalisation.

Finally, the presence of anglicisms in Slovak and German underscores the sociolinguistic dimension of borrowing. Weinreich (1953) famously stated that "the vocabulary of a language is the most sensitive index of the contact between cultures." By engaging learners in identifying, categorising, and discussing anglicisms, educators help them understand not only how languages change structurally but also how speakers negotiate cultural meanings through lexical choice. In this way, anglicisms become a gateway to broader linguistic competence, intercultural awareness, and informed language use in an increasingly interconnected world.

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A PILOT EVALUATION OF AN INTERVENTION PROGRAM TO REDUCE PSYCHOLOGICAL VULNERABILITY AND STRESS IN UNIVERSITY STUDENTS

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Abstract

This pilot study developed and evaluated a six-week acceptance and commitment therapy–based intervention with an emphasized mindfulness component. Four university students participated in the intervention, and four served as a control group. Psychological vulnerability, operationalized as risk work-related patterns, and perceived stress were assessed before and after the intervention. In the intervention group, two participants showed a shift toward more adaptive work-related patterns, and stress levels decreased in two participants, whereas no pattern changes and increased stress were observed in two cases in the control group. Participants in the intervention group also reported satisfaction with the intervention and perceived subjective benefits. These preliminary findings indicate potential effectiveness and support further evaluation.

Keywords: *psychological vulnerability, stress, acceptance and commitment therapy, mindfulness, university students*

1 INTRODUCTION

Among various occupational and age groups, university students have consistently been shown to be at risk for poor mental health outcomes and decreased well-being, manifested, for example, in high levels of distress, anxiety, and depression (e.g., Evans et al., 2018; Stallman, 2010). Up to 83.9% of surveyed student populations report elevated distress levels, which increasingly reduce their capacity for work or study activities and lead to diminished academic achievement (Stallman, 2010). These mental health challenges may partly reflect the upheavals of emerging adulthood (approximately ages 18–29), including identity struggles and limited social support (Arnett et al., 2014). An additional burden is the transition from school to university, which brings increased responsibilities and heightened pressure related to academic performance and career planning (Beiter et al., 2015). Moreover, the number of university students with serious mental health challenges has risen worldwide in the context of recent global crises, including the COVID-19 pandemic, climate change, armed conflicts, and shortages of essential commodities, which have exacerbated the challenges individuals face in their daily lives (Cao et al., 2020). Recent data indicate that 36.6% of European university students display clinical levels of anxiety and 11.3% display clinical levels of depression. Czech university students show even higher rates, with 40.1% and 12.3% displaying clinical levels of anxiety and depression, respectively (Vallone et al., 2023). Another matter of concern is increased psychological vulnerability, or vulnerability to occupational health issues, observed in up to 69% of Czech students (Mašková, 2024). This vulnerability not only has immediate negative effects on individuals but also increases the risk of developing serious physical and mental health problems in the long term if left unaddressed (Schaarschmidt, 2005). Taken together, these findings underscore an urgent need for effective mental health interventions for university students, which the present study seeks to develop and pilot-evaluate.

1.1 Psychological vulnerability

A central concept of this study is psychological vulnerability, which is grounded in the model of Work-related Coping Behavior and Experience Patterns (*Arbeitsbezogenes Verhaltens- und*

Erlebensmuster in German; AVEM; Schaarschmidt & Fischer, 2008). This concept refers to individuals' experiences of occupational stress and the typical behavioral responses they use to cope with such stress. Classification into a specific work-related pattern is based on a diagnostic inventory of the same name, which captures health-relevant constellations of motivation, coping resources, and emotional functioning. Based on the degree to which an individual's responses correspond to prototypical pattern profiles, individuals can be assigned to one of four work-related patterns. Two of these patterns are considered healthy (patterns G and S), whereas the remaining two indicate increased psychological vulnerability and are associated with long-term risks to occupational health (risk patterns A and B). From this perspective, this diagnostic approach enables early identification of individuals at increased risk and supports the targeting of preventive interventions before health problems fully develop. The characteristics of the four work-related patterns are as follows: (1) **Pattern G** (Healthy Ambitious): A health-promoting profile characterized by high but balanced professional commitment, strong coping resources, and high subjective well-being. Individuals can engage deeply in work while maintaining emotional distance and resilience. (2) **Pattern S** (Unambitious): Marked by low professional commitment and reduced work investment, but with adequate coping capacity and high well-being. Although health is not at risk, motivation tends to be low, and engagement is minimal. This pattern may act as an energy-saving strategy under stressful conditions. (3) **Risk pattern A** (Excessively Ambitious): Defined by very high commitment (strong ambition, perfectionism, overexertion) combined with weak coping resources and limited emotional detachment. Individuals experience high strain and low emotional reward, which increases vulnerability to stress-related health problems. (4) **Risk pattern B** (Resigned): The least favorable profile, combining low professional commitment with very low coping capacity and poor well-being. It mirrors core features of burnout—exhaustion, negative emotions, and withdrawal—and signals heightened long-term vulnerability to occupational health issues (Kieschke & Schaarschmidt, 2008; Schaarschmidt & Fischer, 2008). Psychological vulnerability, reflected in assignment to risk patterns A and B, has been identified in a substantial proportion of Czech university students (Mašková, 2024). This finding is particularly concerning given the relative stability of these patterns, which tend to persist or shift toward less adaptive patterns in the absence of targeted intervention, making spontaneous improvement unlikely (Schaarschmidt, 2005). Despite this, evidence-based interventions aimed at reducing psychological vulnerability among university students remain scarce. One exception is a targeted intervention program developed specifically for teacher education students. The *Strengthen for the Teaching Profession* program consisted of an initial three-day intensive training followed by an eight-week application phase. During the training, participants completed core modules related to professional competencies and developed an individual action plan based on self-assessment, which was subsequently implemented and reflected upon during the application phase. In the full version of the program, the proportion of students classified into risk patterns decreased significantly, while the proportion classified into the most desirable pattern G increased markedly, from 27% at pretest to 55% at posttest (Çelebi et al., 2014). Despite its effectiveness, the program's focus on teacher education students limits its broader applicability, highlighting the need for efficient and widely applicable interventions within higher education.

1.2 Acceptance and commitment therapy

The present study focuses on a promising new psychotherapeutic approach: Acceptance and Commitment Therapy (ACT), which is a modern behavior therapy belonging to the third-wave cognitive-behavioral therapy (CBT) approaches. Rather than seeking to change the form or frequency of unwanted thoughts and emotions, its goal is to cultivate psychological flexibility, which enables individuals to live a more rewarding life even in the presence of undesirable thoughts and emotions. The underlying mechanism of ACT is strengthening six core processes: (1) Acceptance – opening up to unpleasant emotions and sensations instead of fighting them. (2) Cognitive defusion – reducing the literal impact of thoughts by shifting how one interacts with them. (3) Contact with the present moment – cultivating mindful, nonjudgmental awareness of ongoing experience. (4) Self-as-context – adopting the perspective of an observing self-distinct from thoughts and feelings. (5) Values – clarifying personally meaningful life directions. (6) Committed action – taking concrete steps toward goals that are guided by these values (Hayes et al., 2006). Although research on ACT effectiveness has been introduced only recently, it shows promising results, which even suggest its superior effectiveness for treating certain mental health issues compared to other more established psychotherapeutic approaches, such as CBT. A recent meta-analysis showed a medium to large effect of group ACT on anxiety symptoms and a small to medium effect on depressive symptoms. The most common formats for group ACT interventions were 6–12 sessions of 90 or 120 minutes, delivered on a weekly basis. The 6–12-session format showed a superior effect over shorter formats. The student group was one of the samples for which the largest effect size was found (Ferreira et al., 2022). To date, there are several dozen studies focused on examining the intervention effect of group ACT on various outcomes in university students. These interventions have resulted in numerous short- and long-term positive outcomes, such as increased psychological flexibility, well-being, school engagement, academic performance, the importance of education-related values, and time and effort management skills. They have also decreased stress, anxiety, depressive symptoms, self-harming tendencies, and suicidal ideation (Browning et al., 2023; Grégoire et al., 2018).

1.3 Mindfulness-based interventions

Mindfulness is most commonly described as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p. 145). Although rooted in Buddhist philosophy, mindfulness was adapted into a secular psychological approach with the development of the Mindfulness-Based Stress Reduction program by Jon Kabat-Zinn in 1979. Since then, mindfulness-based interventions have been widely adopted across clinical and non-clinical settings, particularly in high-stress populations. Accumulating evidence indicates that mindfulness-based interventions are associated with a broad range of beneficial outcomes for both mental and physical health. Current models suggest that the effects of mindfulness-based interventions are mediated at both neurobiological and psychological levels. Neurobiological mechanisms involve changes in brain systems responsible for stress regulation, whereas psychological mechanisms center on decentering (also termed metacognitive awareness or non-attachment), defined as observing thoughts, emotions, and bodily sensations with psychological distance. This process enables more flexible and deliberate responses to internal experiences and supports the cultivation of a more accepting and objective awareness of the present moment (Creswell, 2017). In university students, evidence from a meta-analysis of randomized controlled trials indicates that mindfulness-based interventions are effective in reducing stress and anxiety and in improving depression, well-being, and rumination (Dawson et al., 2020). Evidence from the Czech context further supports the effectiveness of mindfulness-based approaches for university students. Světlák et al. (2021) developed an eight-week online mindfulness-based program delivered to a large sample of university students ($N = 692$). The intervention produced large effect sizes for stress reduction, alongside significant decreases in the frequency and intensity of negative affect and increases in mindfulness and self-compassion. Although mindfulness is a core component of ACT, within the ACT framework it primarily serves a functional role in enhancing present-moment awareness and psychological flexibility through a more open and non-judgmental relationship with internal experiences (Hayes et al., 2006). The present intervention program placed a particular emphasis on mindfulness training as a distinct element, extending beyond brief experiential exercises typically used in ACT to include structured meditative practices such as the body scan exercise. This decision is grounded in the robust evidence base supporting mindfulness-based interventions in university students, as well as in their demonstrated effectiveness within the Czech cultural and educational context.

2 THE PRESENT STUDY

University students represent a high-risk population with respect to perceived stress and psychological vulnerability. To contribute to the range of available intervention programs targeting this population, particularly in the Czech context, the present study develops a six-week intervention program based on ACT, with a specific emphasis on mindfulness. The study aims to provide a pilot evaluation of this intervention program and is guided by the following research questions:

RQ1: Are there differences between students participating in the intervention program and those not participating in the program in levels of perceived stress and psychological vulnerability before and after the intervention?

RQ2: What are the experiences of students participating in the intervention program?

3 METHOD

3.1 Participants

Participants were eight students from the University of West Bohemia enrolled in the course *Personality Psychology* during the summer term of 2025. Four students constituted the intervention group (I1–I4); inclusion criteria required completion of both the pre- and post-intervention surveys and attendance at the majority of the intervention sessions. The remaining four students formed the control group (C1–C4); inclusion criteria required completion of both the pre- and post-intervention surveys and non-participation in any of the intervention sessions. Participant characteristics are presented in Table 1.

Table 1: *Participant Characteristics*

Participant	Gender	Age	Faculty	Field of study	Year of study
I1	Female	22	Faculty of Philosophy	Humanities	3
I2	Male	23	Faculty of Applied Sciences	Distributed Computing Systems	4
I3	Male	22	Faculty of Philosophy	Humanities	3
I4	Male	21	Faculty of Philosophy	International Relations	2
C1	Male	25	Faculty of Applied Sciences	Software and Information Systems	4
C2	Female	22	Faculty of Philosophy	Humanities	3
C3	Female	21	Faculty of Philosophy	Humanities	3
C4	Male	22	Faculty of Philosophy	Humanities	3

Note. Students in years 1–3 were enrolled in a bachelor's degree program, whereas students in year 4 were enrolled in a follow-up master's degree program, with the fourth year corresponding to the first year of a two-year master's program.

3.2 Procedure

The intervention consisted of six weekly sessions, each lasting approximately 90 minutes, delivered as part of regular course meetings. The sessions were conducted during the final six weeks of the semester within the course *Personality Psychology*, a voluntary course offered to students at the University of West Bohemia. Each session typically began with a brief mindfulness exercise lasting 10–15 minutes, followed by psychoeducational input related to the respective ACT core processes. This was complemented by experiential, hands-on exercises and subsequent reflection, which took place either through group discussion or in written, non-shared form, depending on the nature of the exercise and participants' willingness to share. An overview of the intervention structure and key practical exercises is provided in Table 2.

Table 2: *The Structure of the Intervention Program*

Session	Core process	Practice
1	Contact with the present moment	Mindful listening Five senses grounding exercise Body scan Brief breathing-based grounding (*Dropping the anchor*)
2	Cognitive defusion	Leaves on a stream, "I notice that I am having a thought that…" Passengers on the bus
3	Self-as-context	Mindfulness exercise focused on observing awareness Sky and weather and Chessboard metaphors Reflection on continuity of the observing self across changing experiences
4	Acceptance	Mindfulness of unpleasant bodily sensations Visualizing emotions as objects Compassion-oriented exercise toward one's own difficult experiences
5	Values	Five senses grounding exercise The 80^{th} birthday exercise Identifying values in meaningful past experiences Values sorting across life domains
6	Committed action	Body scan Small steps planning linked to identified values Point-of-choice framework

The pre-intervention survey was completed within one week prior to the first intervention session during March 2025 (T1), and the post-intervention survey was completed one week after the final intervention session during May 2025 (T2). Participants were asked to generate a confidential identification code that allowed matching of T1 and T2 responses and enabled them to receive individual feedback while maintaining confidentiality. Approximately two weeks after completing the T2 survey, students who participated in the intervention program were invited to provide brief qualitative feedback on the program, guided by the question: *"What is your experience with the intervention program? How would you reflect upon the program content?"* Attendance at the intervention sessions, as well as completion of the pre-and post-intervention surveys, was voluntary and was not controlled or penalized as part of the course requirements. All participants provided informed consent prior to participation.

3.3 Measures

Work-related patterns were assessed using the Czech version of the AVEM inventory, which contains 66 items and employs instructions adapted for a student population (Mašková et al., 2022). The inventory comprises 11 scales, with items rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Czech adaptation demonstrates good psychometric properties, with Cronbach's α coefficients ranging from .70 to .85.
Perceived stress was assessed using the 10-item Perceived Stress Scale (PSS-10), originally developed by Cohen and colleagues and validated for Czech populations by Buršíková Brabcová and Kohout (2018). The scale measures the degree to which individuals perceive situations in their lives as stressful during the past month. Items are rated on a five-point Likert scale ranging from 0 (never) to 4 (very often). Six items are negatively worded and indicate higher perceived stress, whereas four positively worded items are reverse-scored. Total scores range from 0 to 40, with higher scores reflecting greater perceived stress. In the Czech validation study, the scale showed high internal consistency (Cronbach's α = 0.87).

3.4 Data analysis

Participants were assigned to one of the four work-related patterns using the algorithm provided by the authors of the AVEM inventory, which also generates the level of concordance between each participant's responses and each of the four patterns. Perceived stress was calculated as the total stress score by reverse-scoring the positively worded items and summing the scores across all 10 items. These procedures were performed for each participant separately for T1 and T2. All analyses were conducted in IBM SPSS 25.

4 RESULTS

The results of the pre- and post-intervention surveys, including the percentage match with each work-related pattern, the dominant pattern, and perceived stress levels at T1 and T2 for all participants, are presented in Table 3.

Table 3: *The Results of the Pre-Intervention and Post-Intervention Surveys*

Participant	Time	%G	%S	%A	%B	Pattern	Stress
I1	T1	0	0	0	100	B	28
	T2	0	0	0.01	99.99	B	32
I2	T1	41.93	1.42	54.00	2.64	A	16
	T2	77.63	3.27	23.37	0.73	G	10
I3	T1	0	0.03	0.01	99.96	B	28
	T2	0	1.09	0.03	98.88	B	19
I4	T1	0	0	4.82	95.18	B	21
	T2	0.27	0.02	78.87	20.84	A	20
C1	T1	0	0	5.53	94.47	B	21
	T2	0	0	5.52	94.48	B	28
C2	T1	77.44	1.84	20.62	0.10	G	20
	T2	97.2	0.23	2.57	0	G	17
C3	T1	0.16	0.01	94.79	5.05	A	22
	T2	0.45	0	99.53	0.01	A	22
C4	T1	1.13	43.3	2.01	53.57	B	10
	T2	0.48	5.00	4.01	90.5	B	14

The participant I1 was assigned to pattern B, and this assignment remained almost unchanged after the intervention, with her stress level even increasing post-intervention. In her intervention reflection, the participant states that she suffers from a personality disorder and experiences mental health challenges. Despite this, she evaluates the sessions positively: *"The seminars made me reflect on myself in certain ways. They guided me a bit toward a path of self-acceptance, and above all, I'm now trying to look at some things a little differently."* She states that she found the mindfulness exercises "particularly helpful." Although they caused discomfort at the beginning—and this still happens occasionally—she uses these exercises to manage her emotional fluctuations, as they help her maintain distance from intense emotions and avoid reacting too quickly without consideration.

Participant I2 was initially assigned to pattern A, with a shift toward pattern G after the intervention. His stress level also tended to decrease post-intervention. The participant evaluated the sessions positively, describing them as *"a very pleasantly spent time with reflection."* At the same time, he admitted to having mixed feelings about the *"exercises with a negative connotation,"* which felt uncomfortable at first because he *"is used to thinking positively."* In the end, however, he acknowledged that learning to deal with negative matters is important and said he was glad he went ahead with it.

Participant I3 was initially assigned to pattern B, with only minimal change post-intervention. However, he himself recognizes even this slight shift toward pattern S and *"considers it a step toward better stress management and personal balance."* His stress level decreased notably after the intervention, which he views as significant personal progress and attributes primarily to the mindfulness exercises: *"The practical grounding in the present moment without judgment was a new experience for me—one that has a concrete impact on my everyday life. Since I often struggle with feelings of anxiety and performance pressure, mindfulness has become a technique I actively use to reduce stress and to stay more connected with my own experience."* In addition, he highlights the value-oriented exercises, noting that he appreciated the opportunity to reflect on his core values as well as on those he currently pays less attention to but believes deserve greater focus.

Participant I4 was initially assigned to pattern B with a full pattern expression (more than 95% concordance), followed by a post-intervention shift to pattern A. His stress level showed only a slight decrease. The participant acknowledges this shift and explains that, although he remains in a risk pattern, he perceives that post-intervention he *"feels more able to fulfil his potential,"* which motivates him to continue improving. He attributes this change mainly to the mindfulness exercises and noted that after the in-class sessions he felt more relaxed, with an improved mood that lasted throughout the day. He reports that he has learned to use these exercises at home whenever he feels that he cannot keep up or struggles to manage everything.

With regard to participants in the control group, who were not exposed to the intervention, no pattern shifts occurred. Regarding stress levels, for participants C1 and C4, who were assigned to (and remained in) pattern B, stress levels tended to increase. Specifically, in participant C4, the level of concordance with pattern B also tended to increase notably from T1 to T2. For A-type participant C3, stress levels remained stable, and for G-type participant C2, there was a tendency for stress levels to decrease.

5 DISCUSSION

This study presents a pilot evaluation of a six-week ACT-based intervention with an emphasized mindfulness component, focusing on its effects on psychological vulnerability—operationalized as assignment to risk work-related patterns—and perceived stress in university students. Pre- and post-intervention data indicated pattern shifts in two of the four participants. One participant shifted from risk pattern A to the healthy pattern G, accompanied by a reduction in stress of approximately six points. A second participant shifted from pattern B to pattern A, with a reduction in stress of about one point. Although this latter change represented a transition between two risk patterns and involved only minimal stress reduction, it was nevertheless considered a favorable outcome, as pattern A is generally regarded as less problematic than pattern B, which is associated with predominantly negative correlates (e.g. Kieschke & Schaarschmidt, 2008). This shift may therefore be interpreted as an initial step toward healthier patterns, a view supported by the participant's expressed motivation to continue improving. In addition, the relative stability of stress levels may be viewed positively, given that the intervention coincided with the onset of the examination period, an inherently stressful time for students. In the remaining two participants, no pattern changes were observed. However, one student, who remained in pattern B, showed the largest reduction in stress, with a decrease of approximately nine points. The only participant for whom no positive quantifiable outcomes were observed was a student, who showed a stable, very high level of concordance with pattern B at both pre- and post-intervention, accompanied by an increase in stress levels. Notably, this participant had been diagnosed with a personality disorder and reported persistent mental health challenges, which are unlikely to be substantially affected by a six-week intervention. Nevertheless, the participant reported perceived subjective benefits from the intervention, which may be valuable when combined with ongoing professional treatment. In contrast, none of the four students who were not exposed to the intervention showed a pattern shift. Unsurprisingly, two students classified as pattern B also experienced an increase in stress levels, likely associated with the examination period. For the student classified as pattern A, stress levels remained unchanged, whereas, interestingly, the student classified as pattern G showed a decrease in stress. This finding points to the self-regulatory nature of pattern G, which allows for spontaneous improvement—an outcome that would be highly unlikely in the case of risk patterns (Schaarschmidt, 2005).

From the participants' perspective, the intervention was evaluated very positively, particularly with regard to its perceived usefulness and transferability to everyday functioning, with mindfulness exercises identified as the most salient component and associated with both subjective benefits and observable improvements. Consistent with these experiences, a meta-analysis of interventions in university students reported stronger effects of mindfulness-based programs than ACT on anxiety and depression outcomes (Ma et al., 2022). Similarly, mindfulness-based interventions have been shown to produce more rapid reductions in depressive symptoms than ACT, although comparable effects may emerge over longer periods (Sadeghi-Bahmani et al., 2022). Together, these findings suggest that mindfulness exercises may be experienced as more tangible and immediately effective, whereas ACT-based exercises may exert more subtle or gradual effects that are less readily recognized in short-term interventions.

The results of this study should be regarded as preliminary, primarily due to the small, non-randomized convenience sample. Nevertheless, they point to important directions for future research using more robust methodologies. Further evaluation of the program is warranted, ideally by examining its individual components separately as well as in combination and by including an appropriate control group. Adding a follow-up measurement point would also allow the assessment of cumulative and longer-term effects of the program components. Importantly, the preliminary findings suggest that the intervention may reduce psychological vulnerability and stress in high-stress, non-clinical populations, but is not primarily intended for clinical populations, although individuals with clinical conditions may still experience subjective benefits.

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TECHNOSTRESS AMONG CZECH UNIVERSITY STUDENTS: IDENTIFYING AT-RISK GROUPS

Klára Daňková, Ivana Mašková

Abstract

This study examines technostress among Czech university students and identifies groups that may be more vulnerable to technology-related strain. A sample of 420 students completed the six-dimension Technostress Scale. Inferential analyses revealed significant differences across several demographic and academic factors. Older students reported higher *Work–Home Conflict* as well as greater *Techno-Reliability* and *Techno-Sociality*, while women showed higher *Techno-Overload* than men. Psychology students reported higher *Techno-Reliability* and *Techno-Sociality* compared with several other fields, and part-time students reported lower *Techno-Reliability* than full-time students. Overall, the findings indicate that technostress varies meaningfully across student subgroups and should be considered when developing support for students' digital well-being.

Keywords: *technostress, university students, information communication technologies*

1 INTRODUCTION

Digital technologies play an increasingly central role in university life and beyond, with their daily use becoming unavoidable in the contemporary world. While these tools offer clear benefits, their intensive and often mandatory use in meeting academic requirements can also produce technology-related strain resulting from difficulties in adapting to technological demands. This strain is captured by the concept of *technostress*, which reflects the dynamic interplay between users and their digital environment and encompasses factors that may both diminish and support digital well-being. Understanding how different groups of students navigate this digital environment is therefore essential, especially as higher education continues to deepen its reliance on digital platforms. Such insights can inform the development of tailored support strategies aimed at promoting students' digital well-being.

2 TECHNOSTRESS

2.1 Definition of technostress

Technostress refers to stress arising from the prolonged use of information and communication technologies (ICT). The term was first introduced by Craig Brod (1984) to describe the negative consequences of the technological revolution for human health. In this paper, we draw on the following general definition: "Technostress is a negative psychological state resulting from an inability to cope with new or changing technologies in a healthy manner" (Brod, 1984). This definition aligns with the transactional model of stress and coping proposed by Lazarus and Folkman (1984), who conceptualized stress as a dynamic interaction between the individual and the environment. Stress occurs when people perceive situational demands as exceeding their capacity to manage them. From this perspective, reactions to technostress depend on how individuals appraise technology-related demands and the coping strategies they employ.

2.2 Technostress and its dimensions

Technostress is a multidimensional construct, with each dimension contributing to psychological strain in a distinct way. In this paper, we draw on the six validated dimensions proposed by Galvin et al. (2022), who demonstrated their relevance for understanding how ICT use influences mental health. The first dimension, *Techno-Overload*, refers to situations in which technology creates excessive informational and task demands. Moore (2000) showed that such overload is a significant risk factor for stress and burnout among IT employees. A second dimension, *Work–Home Conflict*, captures tensions that arise when professional responsibilities intrude into personal life and vice versa. According to Kreiner (2006), technology can either facilitate or complicate transitions between these roles. Both dimensions have been linked to heightened anxiety and depressive symptoms when not effectively managed (Galvin et al., 2022). The third dimension, *Techno-Ease*, concerns the perceived ease of using digital tools. When technology feels intuitive, it tends to enhance performance and reduce ICT-related stress. Moore and Benbasat (1991) demonstrated that perceived usability shapes technology adoption, while Galvin et al. (2022) found that students who feel competent with ICT report fewer symptoms of anxiety and depression. A fourth dimension, *Techno-Reliability*, focuses on the stability and dependability of technological systems. DeLone and McLean (2003) showed that reliable ICT infrastructure increases productivity and reduces stress by allowing users to trust that essential tools will function consistently. The fifth dimension, *Techno-Sociality*, addresses how technologies shape social interactions. ICT can enhance feelings of connectedness but may also create isolation or interpersonal strain, as Ayyagari (2011) found that technology can simultaneously facilitate communication and introduce new forms of social pressure. The sixth dimension, *Pace of Change*, reflects how individuals perceive the speed of technological development. Rapid technological shifts can cause frustration and uncertainty, particularly when organizations fail to provide adequate support or training. Weiss and Heide (1993) argued that fast-paced innovation can leave users feeling unprepared and overburdened. Together, these six dimensions underscore the multifaceted nature of technostress and illustrate how ICT may serve both as a vulnerability factor and a potential source of support for psychological well-being.

2.3 Technostress among university students

Technostress among university students can be shaped by several contextual and individual factors. One important source is the influence of distance learning. The combination of online instruction and study–family conflict can markedly increase technostress, as students often experience *Techno-Overload* due to constant ICT demands. Cataldo et al. (2023) showed that such overload during remote education reduces satisfaction with university life and negatively affects academic performance. Another important explanation is offered by the Person–Environment Misfit perspective. Wang et al. (2020) demonstrated that technostress does not arise solely from technology itself but primarily from mismatches between students' characteristics and the environments in which ICT is used. The Person–Environment Misfit model includes three types of misfit. Person–Organization (P–O) misfit occurs when institutional expectations regarding technology use (e.g., e-learning platforms, online testing) exceed students' abilities or resources. Person–Technology-Enhanced Learning (P–TEL) misfit refers to strain caused by students' direct interaction with technology, such as insufficient digital skills. Person–People (P–P) misfit captures the lack of social support from peers or instructors, which can heighten ICT-related stress. Research shows that all three misfit types significantly predict burnout, with P–O misfit—reflecting institutional ICT demands—emerging as the strongest predictor.

3 THE PRESENT STUDY

The aim of this paper is to identify which groups of university students in the Czech Republic are most affected by technostress. The study examines its associations with key demographic

factors (age, gender) and academic characteristics, including study mode (full-time/part-time), international student status, field of study (six disciplinary categories), and type of study program (bachelor's, master's, doctoral). The main research question for this study was defined as follows:
RQ: What is the level of technostress across different groups of university students?

4 METHOD

4.1 Participants

The research sample comprised 420 students enrolled at higher education institutions in the Czech Republic (*M* age = 22.8 years, range 18–61), of whom 75.8% were women and 24.2% were men. Participants were recruited from eight universities: the University of South Bohemia, Masaryk University, Charles University, Czech Technical University in Prague, Palacký University, Czech University of Life Sciences, Technical University of Ostrava, and the University of Veterinary Sciences Brno. With respect to study program, 63.4% were enrolled in bachelor's studies, 31.1% in master's studies, and 5.5% in doctoral studies. International students made up 6.4% of the sample, and most participants studied full-time (85.6%). Fields of study were relatively evenly represented, with the largest proportion in STEM disciplines (26.4%), followed by psychology (21.6%), humanities (19%), economics (19%), education (10.8%), and health-related fields (3.1%).

4.2 Procedure

Data collection was conducted online using the Qualtrics platform. Participants were recruited through institutional email communication and supplementary channels, including social media. All participants provided informed consent prior to taking part in the study. Data were gathered between March and December 2022 using a non-probability sampling strategy.

4.3 Measures

The study employed the six-dimension Technostress Scale validated by Galvin et al. (2022). The dimensions were derived from prior conceptualizations: *Techno-Overload* (Moore, 2000), *Work–Home Conflict* (Kreiner, 2006), *Techno-Ease* (Moore & Benbasat, 1991), *Techno-Reliability* (DeLone & McLean, 2003), *Techno-Sociality* (Ayyagari, 2011), and *Pace of Change* (Weiss & Heide, 1993). The instrument comprises 17 items rated on a seven-point Likert scale, with three items per dimension except *Techno-Sociality*, which contains two. Internal consistency was satisfactory to excellent across subscales: *Techno-Overload* (α = 0.830), *Work–Home Conflict* (α = 0.806), *Techno-Ease* (α = 0.846), *Techno-Reliability* (α = 0.821), *Techno-Sociality* (α = 0.780), and *Pace of Change* (α = 0.883).

4.4 Statistical analyses

To address the research question, differences in the six technostress dimensions were examined across student groups defined by gender, age, study mode, field of study, study program, and international status. As visual inspection and the Shapiro–Wilk test indicated significant deviations from normality for all scales, nonparametric statistical methods were applied. In total, 36 tests were conducted, selected according to variable type: Spearman's correlation (age), Mann–Whitney U tests (gender, study mode, international status), and Kruskal–Wallis tests (field of study, study program). Statistical significance was evaluated at $\alpha = 0.05$, as adjusting the threshold for multiple testing would have been overly conservative. Data were processed using *Jamovi* statistical software.

5 RESULTS

Across the six dimensions, the highest mean score was observed for *Techno-Ease* (M = 16.14, SD = 3.35), followed by *Techno-Reliability* (M = 14.16, SD = 3.33). Moderate values were recorded for *Techno-Sociality* (M = 11.72, SD = 2.31) and *Pace of Change* (M = 11.65, SD = 4.21). The lowest mean scores appeared for *Work–Home Conflict* (M = 10.49, SD = 4.64) and *Techno-Overload* (M = 10.26, SD = 4.50). Regarding differences among student groups, statistically significant effects were identified for the dimensions *Techno-Overload*, *Work–Home Conflict*, *Techno-Reliability*, and *Techno-Sociality*. Differences were non-significant for the remaining scales. The results are reported in Table 1.

Table 1: *Results of Statistical Tests for Technostress Dimensions Across Student Groups*

Scale	Age	Gender	Study mode	International student	Field of study	Study program
T-O	ρ = -0.011 p = 0.817	**U = 11342** **p = 0.001**	U = 9639 p = 0.214	U = 4050 p = 0.235	$\chi^2(5)$ = 6.62 p = 0.251	$\chi^2(2)$ = 0.95 p = 0.622
W-HC	**ρ = 0.122** **p = 0.013**	U = 14375 p = 0.203	U = 10691 p = 0.983	U = 4909 p = 0.528	$\chi^2(5)$ = 5.49 p = 0.359	**$\chi^2(2)$ = 9.14** **p = 0.010**
PC	ρ = -0.006 p = 0.897	U = 15193 p = 0.625	U = 10095 p = 0.475	U = 4896 p = 0.514	$\chi^2(5)$ = 6.77 p = 0.239	$\chi^2(2)$ = 2.68 p = 0.262
T-R	**ρ = 0.106** **p = 0.030**	U = 14999 p = 0.499	**U = 8754** **p = 0.030**	U = 5168 p = 0.838	**$\chi^2(5)$ = 16.50** **p = 0.006**	$\chi^2(2)$ = 3.95 p = 0.139
T-S	**ρ = 0.113** **p = 0.021**	U = 15681 p = 0.985	U = 9506 p = 0.154	U = 5008 p = 0.634	**$\chi^2(5)$ = 12.50** **p = 0.028**	$\chi^2(2)$ = 2.84 p = 0.242
T-E	ρ = 0.027 p = 0.581	U = 14466 p = 0.234	U = 9844 p = 0.314	U = 5008 p = 0.634	$\chi^2(5)$ = 5.07 p = 0.408	$\chi^2(2)$ = 0.02 p = 0.989

Note. T-O = *Techno-Overload*; W–HC = *Work–Home Conflict*; PC = *Pace of Change*; T–R = *Techno-Reliability*; TS = *Techno-Sociality*; T–E = *Techno-Ease*.

5.1 Techno-Overload

The most pronounced difference emerged in the *Techno-Overload* dimension with respect to gender. Women (M = 10.73, SD = 4.38) reported significantly higher levels of *Techno-Overload* compared with men (M = 8.68, SD = 4.51), and this effect was statistically significant
(U = 11342, p < 0.001).

5.2 Work-Home Conflict

Within the *Work–Home Conflict* dimension, significant differences were found for age and study program. Age showed a weak but significant positive association with *Work–Home Conflict* (ρ = 0.122, p = 0.013), indicating a slight increase in perceived conflict with increasing age. Study program was also significant ($\chi^2(2)$ = 9.14, p = 0.010), with doctoral students reporting the highest scores, followed by master's students, and bachelor's students the lowest. Post hoc analysis (Dwass–Steel–Critchlow–Fligner; DSCF) indicated that only the comparison between doctoral and bachelor's students reached significance (p = 0.016).

5.3 Techno-Reliability

The *Techno-Reliability* dimension showed significant differences across three variables. Age was positively associated with perceived reliability ($\rho = 0.106$, $p = 0.030$), indicating that older students viewed technologies as slightly more dependable. Study mode also showed a significant effect ($U = 8754$, $p = 0.023$), with part-time students reporting lower reliability scores than full-time students. Field of study further differentiated students' perceptions ($\chi^2(5) = 16.5$, $p = 0.006$). Psychology students reported the highest mean score ($M = 15.3$), followed by those in health-related fields ($M = 14.7$), while other disciplines ranged between $M = 13.7$ and $M = 14.0$. Post hoc DSCF tests showed significant differences between psychology students and students in economics ($p = 0.008$), STEM ($p = 0.019$), and the humanities ($p = 0.017$). No other pairwise differences reached significance. The mean values across fields of study are presented in Table 2.

Table 2: *Means and Standard Deviations for Techno-Reliability and Techno-Sociality Across Fields of Study*

		Techno-Reliability		**Techno-Sociability**	
Field of study	*n*	*M*	*SD*	*M*	*SD*
Economics	79	13.7	3.14	11.1	2.54
Education	45	14.00	3.00	12.1	1.95
Psychology	90	15.3	3.13	12.3	1.73
STEM	110	13.8	3.50	11.6	2.57
Humanities	79	13.9	3.28	11.4	2.46
Health	13	14.7	4.21	12.6	1.19

5.4 Techno-Sociality

For this dimension, significant associations were identified with age ($\rho = 0.113$, $p = 0.021$) and field of study ($\chi^2(5) = 12.5$, $p = 0.028$). Post hoc analysis (DSCF) showed a single significant pairwise difference: psychology students reported higher *Techno-Sociality* scores than students in economics ($p = 0.028$). The mean values across fields of study are presented in Table 2.

6 DISCUSSION

The results of this study suggest that technostress is a meaningful and measurable construct among university students in the Czech Republic. Dimensions generally regarded as protective in the context of technology use (*Techno-Ease*, *Techno-Reliability*, *Techno-Sociality*) showed higher mean scores, whereas dimensions associated with greater psychological risk (*Pace of Change*, *Work–Home Conflict*, *Techno-Overload*) were rated lower. Significant differences across student groups further enabled the identification of subgroups that appear more vulnerable, as well as those potentially less affected by technostress. Age emerged as one of the most consistent correlates of technostress. Older students reported higher scores in *Work–Home Conflict*, *Techno-Reliability*, and *Techno-Sociality*. This pattern aligns broadly with findings by Upadhyay and Vrinda (2021), who observed elevated technostress levels among students aged 23–28 compared with younger cohorts. However, the interpretation differs across dimensions. Higher scores in *Techno-Reliability* and *Techno-Sociality* likely reflect more positive or confident engagement with technology—such as greater trust in its functionality and more frequent technology-supported social interaction—rather than increased strain. In contrast, the meaning of *Work–Home Conflict* is more straightforward: this dimension captures the extent to which technology blurs boundaries between study-related demands and personal life. Older students, who are more likely to have additional responsibilities such as employment or caregiving, may experience greater difficulty maintaining these boundaries. This interpretation is further supported by the significant association between *Work–Home Conflict* and study program, with doctoral students reporting the highest conflict levels. Given that average age increases across study levels, higher scores among doctoral students likely reflect the cumulative effect of age, role complexity, and competing obligations that must be balanced alongside academic tasks. Study mode also emerged as a relevant factor. Part-time students reported lower scores on *Techno-Reliability*, which may be attributable to their reduced day-to-day engagement with university technologies. Less frequent exposure to institutional platforms and digital tools may limit opportunities to develop familiarity and trust in their functionality, resulting in lower perceived reliability. Field of study showed significant associations with several technostress dimensions, particularly *Techno-Reliability* and *Techno-Sociality*. Students in psychology and health-related disciplines reported the highest scores in both dimensions, suggesting a more adaptive integration of technology into their everyday routines. This pattern may also reflect broader psychosocial resources: higher perceived reliability of technology and greater use of digital tools for social interaction can indicate more effective coping strategies and stronger overall well-being. Such tendencies have been repeatedly documented among students in medicine and related health disciplines (e.g., Erekson et al., 2022; Mašková, 2023), who often demonstrate better mental health and more adaptive responses to academic demands. It is therefore plausible that these adaptive approaches extend to technology-related demands as well.

The findings underscore the need for universities to actively address technostress as digitalization becomes increasingly central to academic life. Strengthening students' digital competencies—particularly in areas associated with higher technostress—should be a priority. Practical steps may include targeted workshops on efficient use of study technologies, digital organization, and strategies for maintaining healthy boundaries between academic and personal life. Such initiatives could help mitigate the negative effects of technological overload while simultaneously reinforcing protective factors that support students' well-being.

This study has several limitations that should be considered when interpreting the findings. Its cross-sectional design precludes causal inferences, and the use of purposive sampling limits the generalizability of the results to the wider student population. In addition, *p*-values for multiple tests were not adjusted, increasing the risk of Type I error. The sample was also unevenly distributed across study groups: bachelor's and full-time students were strongly overrepresented, whereas doctoral and part-time students were included only marginally. This imbalance may have influenced the subgroup analyses. Therefore, the findings should be viewed as preliminary, and future research should aim to replicate them using a more balanced and representative sample.

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WORK-RELATED COPING BEHAVIOR AND EXPERIENCE PATTERNS AND THEIR CORRELATES IN TEACHER EDUCATION STUDENTS: A QUALITATIVE STUDY

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Abstract

This qualitative study explores how Czech teacher education students with a high match to one of the four Work-Related Coping Behavior and Experience Patterns perceive their academic success, academic self-concept, and academic self-efficacy. Using semi-structured interviews with six prototypical representatives of patterns G, S, A, and B, the findings reveal distinct profiles consistent with previous quantitative research while adding nuanced insights, particularly regarding the challenges associated with the risk patterns A and B. The study provides preliminary evidence that enriches understanding of the nature of these patterns and their academic correlates, offering implications for teacher education and student support.

Keywords: *occupational vulnerability, teacher education, academic functioning*

1 INTRODUCTION

Teachers play a vital role in shaping individuals and society, yet even before entering the profession many education students experience considerable psychological vulnerability (Mašková, 2023). These difficulties may later translate into occupational health problems, affecting both their well-being and future professional functioning. This underscores the need to understand and address such risks already during teacher education.

1.1 Work-related coping behavior and experience patterns

The concept of Work-related Coping Behavior and Experience Patterns is assessed using the homonymous diagnostic inventory—the *Arbeitsbezogenes Verhaltens- und Erlebensmuster* (in German; Schaarschmidt & Fischer, 2008). The 66-item AVEM measures 11 dimensions across three domains (professional commitment, coping capacity, subjective well-being) and classifies respondents into one of four empirically derived work-related patterns. These patterns reflect health-relevant constellations of motivation, coping resources, and emotional functioning. Overall, it enables early identification of individuals at increased risk (patterns A and B) and helps target preventive interventions before health problems fully develop (Kieschke & Schaarschmidt, 2008; Schaarschmidt & Fischer, 2008). The characteristics of the four work-related patterns are as follows: (1) **Pattern G** (Healthy Ambitious): A health-promoting profile characterized by high but balanced professional commitment, strong coping resources, and high subjective well-being. Individuals can engage deeply in work while maintaining emotional distance and resilience. (2) **Pattern S** (Unambitious): Marked by low professional commitment and reduced work investment, but with adequate coping capacity and high well-being. Although health is not at risk, motivation tends to be low, and engagement is minimal. This pattern may act as an energy-saving strategy under stressful conditions. (3) **Pattern A** (Excessively Ambitious): Defined by very high commitment (strong ambition, perfectionism, overexertion) combined with weak coping resources and limited emotional detachment. Individuals experience high strain and low emotional reward, which increases vulnerability to stress-related health problems. (4) **Pattern B** (Resigned): The least favorable profile, combining low professional commitment with very low coping capacity and poor well-being. It mirrors core features of burnout—exhaustion, negative emotions, and withdrawal—and signals heightened long-term vulnerability to occupational health issues.

1.2 Correlates of work-related patterns in university students

Studies utilizing the AVEM instrument in university student populations—conducted mainly in German-speaking countries—have identified several correlates of the distinct work-related patterns. The results of the published studies consistently show that female students, teacher education students (compared to medical students), and students who receive insufficient social and financial support are at greater risk of being assigned to work-related patterns that indicate vulnerability to burnout and occupational health issues. Moreover, students assigned to these patterns, especially to the resigned (burnout) pattern, are prone to manifest other negative characteristics, such as less adaptive personality traits and coping strategies, vulnerability to stress, lower quality motivation, lack of commitment to the chosen career and suitability for the profession, and impaired physical and mental health. In contrast, the most desirable correlates—such as adaptive personality traits, higher quality motivation, commitment to the chosen career, suitability for the profession, stress resistance, adaptive coping, and better physical and mental health—were related to the healthy ambitious pattern G (Mašková, 2023).

Although topics such as motivation and mental health have been studied extensively, evidence on academic functioning—including academic self-concept, self-efficacy, and perceived success—remains limited. The available findings for students, including teacher education students, suggest a varied set of findings. Self-perceived academic achievement appears to be highest in G and A types (Aster-Schenck et al., 2010; Voltmer et al., 2012), and these groups also report the greatest perceived success during teaching placements (Cramer, 2012). In contrast, expected placement success tends to be higher among G and S types than among A- and B-type students (Cramer, 2012). Similarly, expected future career success is highest in G-type students and lowest in B-type students (Rothland, 2011). Consistent with these trends, self-efficacy is higher in G and S types compared to A and B types (Bauer, 2009). Overall, these findings show a mixed pattern that warrants deeper and more systematic investigation.

1.3 Academic self-concept and self-efficacy

Academic self-concept refers to students' subjective perceptions, beliefs, and knowledge about themselves in academic situations, including the abilities, attributes, and limitations they consider part of their identity (Ferla et al., 2009; Ghazvini, 2011). These beliefs play an important developmental role, shaping cognitive, social, and emotional engagement (Bong & Skaalvik, 2003). Although related to self-efficacy, the two constructs differ. Academic self-concept has both cognitive and affective components, concerns general abilities, is shaped by past experiences and social feedback, and focuses on whether one possesses certain competencies. Self-efficacy is primarily cognitive, task-specific, future-oriented, and reflects beliefs about what one can accomplish with a given ability. It is formed through previous performance, comparison with others, and verbal persuasion, particularly when delivered by trusted sources (Bong & Skaalvik, 2003; Ferla et al., 2009).

2 THE PRESENT STUDY

Work-related patterns in teacher education students have been widely studied quantitatively using the AVEM, yet no qualitative research exists. This gap limits deeper insight into the characteristics and experiences associated with each pattern. The present study addresses this gap by using semi-structured interviews to examine how students with a high match to one of the four work-related patterns describe their academic functioning, focusing specifically on perceived academic success, academic self-concept, and academic self-efficacy. The study is guided by two research questions:

RQ1: What manifestations of *perceived academic success* can be observed among individuals with a high match to each work-related pattern?

RQ2: What manifestations of *academic self-concept* and *self-efficacy* can be observed among individuals with a high match to each work-related pattern?

3 METHOD

3.1 Participants

Participants were selected through purposive sampling from teacher education students who had previously consented to further contact during a first-year quantitative survey. From this pool, we invited those whose work-related patterns showed over 95% pattern concordance—considered prototypical representatives of each pattern (Schaarschmidt & Fischer, 2008)—and who agreed to participate. Six students took part, all of them women aged 20 years. Participant characteristics are presented in Table 1.

Table 1: *Participant Characteristics*

Respondent	Year of study	Specialization	Pattern	Level of concordance
G1	2	Art and Chemistry for LSS	G	99.33%
G2	2	Art and Russian for LSS	G	97.51%
S1	1	English and Spanish for USS	S	98.69%
S2	1	English and Spanish for USS	S	98.94%
A1	2	Czech and History for LSS	A	95.85%
B1	1	English and Czech for USS	B	99.99%

Note. LSS = lower secondary school, USS = upper secondary school.

3.2 Procedure

Data were collected through semi-structured interviews, allowing coverage of key topics while remaining flexible to participants' responses. Interviews were conducted in a quiet private space at the university, lasted approximately 45 minutes, and were audio-recorded. Recordings were transcribed verbatim for analysis, and to ensure anonymity, neither the audio files nor full transcripts are publicly accessible. Prior to participation, all participants received detailed information about the aims of the study, the voluntary nature of participation, data handling procedures, and their right to withdraw at any time without consequences. Written informed consent was obtained from all participants before data collection. Each participant received a one-time stipend of 500 CZK as compensation for taking part in the interview.

3.3 Data analysis

Data were analyzed using deductive thematic analysis following the six-step procedure described by Braun and Clarke (2006). After repeated reading of the transcripts, semantic codes were generated to capture explicitly stated meanings. These codes were then grouped into themes informed by the research questions and the existing theoretical framework on work-related patterns. Themes were reviewed against the coded data and the full dataset, refined for coherence, and clearly defined. Credibility was enhanced not only through careful purposive sampling of prototypical participants with high pattern concordance and the use of direct verbatim quotations, but also through peer reflection and collegial discussion throughout the analytic process. Transferability was addressed by systematically comparing the qualitative findings with existing results. This allows readers to assess the potential applicability of the findings to similar contexts. Dependability was ensured through the use of a consistent interview guide across all participants, verbatim transcription of audio recordings, and re-coding of the data, allowing for transparency and traceability of analytic decisions throughout the research process.

4 RESULTS

4.1 Perceived academic success

G-type students define academic success more broadly than achieving good grades, passing examinations, or completing the semester without complications. They also emphasize meeting self-set goals, acquiring new knowledge, consolidating previously learned material, and experiencing enjoyment during their studies. These indicators are not explicitly required by the university, suggesting that G-type students establish their own additional criteria for what constitutes success. G-type students include experiences of enjoyment and personal growth within their definition of academic success. As one student noted, *"We have sculpture class, which is something I had never done before, and I found out that I actually enjoy it. I'm really satisfied with what I created there."* (G1). They also describe setbacks such as receiving lower grades, perceiving weaker performance compared to peers, or feeling they have acquired less knowledge than others. As another respondent explained, *"It's definitely quite difficult to see your classmates manage something while you notice you still have some gaps."* (G2). These setbacks are typically interpreted as minor, correctable issues or as opportunities for learning and improvement. As one G-type student put it, *"I tell myself that I need to try harder next time. And if it's a test I have to retake, I just spend more time preparing for it."* (G1).

For S-type students, academic success is described primarily in terms of acquiring new knowledge, passing examinations, submitting seminar papers on time, and being accepted into the Erasmus program. One participant stated, *"I successfully completed my seminar paper on […], and now in the first semester I managed everything on the first attempt."* (S1). The only setback mentioned by S-type students was the failure to meet self-imposed goals. When experiencing such a setback, they tend to evaluate the issue and formulate a revised plan for future action. As one informant explained, *"I made a resolution to work on English transcription because I'm not good at it and haven't done it yet. So that's a kind of failure, because I set it as a goal and still haven't done it."* (S2).

The A-type student reported only experiences of success. She considered success not only the completion of all examinations but also the fact that she passed each of them on the first attempt. She stated that she has not encountered any setbacks so far. However, she acknowledged that these achievements came at the expense of her personal life, as she dedicated the entire semester solely to studying. As she noted, *"I think so far it's only been successes. Even though it takes a lot of effort and I really have to study hard, I still see only success at this point."* (A1).

The B-type participant described academic success primarily as completing most courses despite periods of demotivation and procrastination. As she noted, *"I passed, and I didn't get any barely-passing grades. So in the end I somehow learned it."* (B1). In terms of setbacks, she mentioned missing an exam session and failing a course she had considered easy, which led her to underestimate the preparation required. *"To be specific, I didn't attend the exam for one course. I went to the first attempt and failed. For personal reasons I couldn't make it to the second, so I basically let it go. I'll have to retake the course in the second year."* (B1). She did not feel the need to cope with these setbacks or propose any preventive strategies. Although the failure did not weigh heavily on her, it did elicit a sense of personal disappointment. As she explained, *"It didn't really weigh on me. I just thought it was annoying that I'd have to repeat it. I was a bit disappointed with myself because I assumed it would be an easy course."* (B1).

4.2 Academic self-concept and self-efficacy

G-type students believe they plan their time more effectively than others and possess greater knowledge or experience in certain areas. They also view themselves as more motivated, diligent, eager to learn, and disciplined. Additional strengths mentioned include their extraverted disposition, positive attitude, and ability to work well with children. As one student noted, *"I attended art classes at the arts school from the first grade until the end of high school, so when a teacher mentions certain techniques, I already know them."* (G2). Their main perceived weakness is a reduced ability to explain subject matter to children. As one respondent stated, *"I can't always express myself precisely, so I'd worry that the children might not fully understand me."* (G1). Although they recognize that university provides limited opportunities to make a strong impression on instructors, they still believe they create a generally positive image—one of effort, diligence, and consistent attendance. As one of them explained, *"I hope they see me positively, as someone who really works hard and tries to manage everything."* (G2). Regarding peers, they hope to be perceived as extraverted and hardworking, and potentially as competitors. As one student remarked, *"I see them as competitors, and they might see me as competition too. But I think it definitely motivates us."* (G2).

S-type students view their main strengths—relative to their peers—as the ability to create an effective study plan, thorough preparation for classes, specific knowledge and experience, adaptability, diligence, in-class engagement, willingness to help others, higher creativity, and a modern approach to teaching. As one student noted, *"I did much better in languages than most of my classmates."* (S1). Another commented, *"I think planning is where I stand out; when I watch my classmates, I notice that I plan things much more."* (S2). Their perceived weaknesses include a lower ability to explain subject matter clearly, as well as insufficient assertiveness and authority. As one participant stated, *"Explaining things is something I'm not very good at."* (S2). They believe that both teachers and peers generally perceive them positively—teachers focus more on their classroom engagement, while peers notice their helpfulness. According to one student, teachers likely see them as active and responsible: *"As a good student. Because I'm active in class, I try to maintain the best possible relationships with my teachers."* (S1). Peers, in their view, recognize their helpfulness, self-improvement efforts, and occasional tendency to procrastinate. As one participant explained, *"They already know about my procrastination—it's not ideal, but otherwise things are fine."* (S1). Another added, *"I think they know I'm happy to help, that I help my classmate with Spanish a lot because she hasn't studied it very long, so she's not afraid to reach out to me."* (S2).

The A-type participant reports both positive and negative aspects of her self-perception, with a slightly stronger emphasis on the negative. She believes she is more diligent and hardworking than others, yet she often feels out of place, alienated, and inadequate. She experiences the university environment as lacking close connections and perceives little interpersonal interest from others. As she explained, *"I feel like I don't really have many people there to talk to, so I feel kind of alienated, and it always seems like I just go there to sit through things, but the actual contact with people isn't really there."* She thinks instructors see her in class as diligent and responsible, or simply as unremarkable and average. During oral examinations, however, she tends to become stressed and assumes that teachers subsequently view her as someone who crams, learns things by rote, or fails to prepare adequately. As she put it, *"I always give it my maximum, but then stress gets to me, and I end up saying things I know are wrong—things I'd never normally say. And then I think teachers see me as someone who either memorizes everything or didn't prepare properly."* In her view, classmates tend to perceive her as very intelligent, but they attribute her performance to innate abilities rather than effort. As a result, she sometimes senses envy from peers and feels they may view her as competition. She also thinks they assume she cares only about her studies. As she noted, *"There's a bit of envy and a bit of sniping, but no one sees what's behind it—that I actually prepared, and they didn't."*

The B-type participant perceives herself predominantly negatively in comparison with others. She reports tendencies toward procrastination, neglecting responsibilities, poor memory, weak explanatory skills, disorganization, laziness, low performance, and ineffective planning. At the same time, she believes she has stronger knowledge and experience in English and that she can be more understanding and empathetic than others. She would like to develop more effective study techniques and improve her time management in the future. As she explained, *"I have this unpredictable memory—sometimes I can recite an entire text word for word, and other times I can't recall anything."* She also described herself as *"a messy student, maybe even a lazy student. I guess I'm pretty lucky that even when I ignore things, they somehow end up working out."* Her negative self-perception extends to how she believes she is viewed by teachers and peers. She thinks teachers mostly do not notice her, and if they do, they see effort and unrealized potential. As she stated, *"I don't think many teachers pay attention to me."* In her view, peers perceive her as unremarkable, quiet, and unfriendly. As she recalled, *"I was told that I have a look as if I wanted to kill someone."*

5 DISCUSSION

This study aimed at deepening our knowledge on the correlates of work-related patterns assessed by the AVEM instruments in Czech teacher education students, employing a qualitative approach and focusing on less-researched topics related to academic functioning. With respect to the perceived academic success, the broadest range of academic successes was reported by G-type students. These successes reflect not only academic performance or criteria implicitly associated with being a "good student," but also the fulfilment of personal aims and self-defined goals. Although they do report setbacks, G-type students tend to downplay them and treat them primarily as opportunities for future learning. S-type students also report mainly successes, though with less variety, focusing more strongly on academic performance and the fulfilment of standard "good student" criteria. Nevertheless, when setbacks occur, they are interpreted similarly to those in the G pattern—as chances to learn from mistakes and to improve. The A-type student described her study experience as consisting solely of successes related to academic performance and the fulfilment of standard "good student" criteria. However, these achievements appeared to be attained through substantial effort at the expense of her personal life. For the B-type student, academic success was defined as fulfilling academic obligations without being at the edge of failing to meet them. She focused more on setbacks than on achievements, and these setbacks tended to reinforce her already negative self-perception rather than motivating preventive or strategic efforts. With respect to academic self-concept and academic self-efficacy, both G-type and S-type students show generally positive self-perceptions and readily identify their strengths, while sharing the same perceived weakness in explaining subject matter. They also expect teachers to view them favorably. The main difference lies in peer perceptions: G-type students anticipate mostly positive evaluations, whereas S-type students expect a more ambivalent view—being seen as supportive but also associated with negative traits such as procrastination. The A-type student's self-perception is more ambivalent: although she recognizes certain strengths, these tend to be overshadowed by persistent feelings of inadequacy and alienation. Her expectations regarding how teachers and peers perceive her are similarly mixed, marked by negative undertones. She assumes teachers may interpret her stress-induced performance as incompetence, and she feels peers misunderstand her efforts—perceiving her achievements as innate rather than earned, which contributes to a sense of interpersonal misalignment. The B-type student perceives herself predominantly negatively, focusing mainly on her shortcomings. Her expectations of how teachers and peers view her

also carry a negative undertone—either assuming she is not noticed at all or that she is perceived in an unfavorable light.
The findings of the present study go beyond the quantified results reported by previous authors on academic functioning. While both A- and G-type students typically score high on perceived achievement (Aster-Schenck et al., 2010; Cramer, 2012; Voltmer et al., 2012), our results show that their subjective experience of success differs markedly, especially when comparing G- and A-type students. Although the A-type student reported no failures—which may indeed suggest a high level of success—our findings show that this picture is far less glorious than quantitative studies might imply, as such success comes at the substantial cost of sacrificing their personal life. This study also confirmed what previous qualitative findings have suggested—namely, that G- and S-type students show better success expectations and higher self-efficacy than A- and B-type students (Bauer, 2019; Cramer, 2012; Rothland, 2011). Our results not only support the more positive future outlook of G- and S-type students but also reveal a more positive present self-view in the context of their academic studies. At the same time, the study offers a more nuanced understanding of pattern A, revealing its inherently ambivalent character in contrast to the clearly negative profile of pattern B—an insight that would remain hidden if only quantitative data were considered. In conclusion, this study offers a valuable contribution with both theoretical and practical implications.
The main limitation of this study is the small research sample. In both risk patterns, only one participant was included due to limited willingness among these students to take part in the interview. Moreover, the participants differed in their year of study, so for second-year students more time had passed since the first-year AVEM survey, making shifts in pattern assignment possible. Given these limitations, the findings should be viewed as preliminary and as providing initial input for future qualitative studies on this topic.

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RODINNÉ FAKTORY JAKO PREDIKTORY SOMATICKÝCH SYMPTOMŮ V ADOLESCENCI

FAMILY FACTORS AS PREDICTORS OF SOMATIC SYMPTOMS IN ADOLESCENCE

Zuzana Mičková

Abstrakt

Štúdia sa zameriava na analýzu vzťahov medzi rodinnými faktormi (rodičovský záujem, rodičovská vrelosť a pocit bezpečia doma) a výskytom somatických symptómov u adolescentov. Výskumnú vzorku tvorili adolescenti vo veku 10 -19 rokov, N= 875, N(Ž) = 489 a N(M)= 386, vekové kategórie 10–12 rokov (N = 217), 13–15 rokov (N = 322) a 16–19 rokov (N = 335) adolescentov. Vo výskume bol použitý dotazník SAHA (Social and Health Assessment (Weissberg a kol.,1991, adaptovaný Schwab-Stone a kol. (1995, 1999). Rodičovská vrelosť a prežívanie pocitu bezpečia doma predstavuje protektívny faktor. Výsledky zároveň poukazujú na vyšší výskyt somatickej symptomatológie u dievčat v porovnaní s chlapcami a na nárast somatických symptómov s pribúdajúcim vekom, najmä v období staršej adolescencie.

Kľúčové slová: *rodinné faktory, somatické zdravie, adolescencia*

Abstract

The study focuses on examining the relationships between family factors—parental interest, parental warmth, and the sense of safety at home—and the occurrence of somatic symptoms in adolescents. The research sample consisted of adolescents aged 10 to 19 years (N = 875), including 489 girls and 386 boys, divided into three age groups: 10–12 years (N = 217), 13–15 years (N = 322), and 16–19 years (N = 335). Data were collected using the SAHA questionnaire (Social and Health Assessment; Weissberg et al., 1991), adapted by Schwab-Stone et al. (1995, 1999). Parental warmth and the perceived sense of safety at home emerged as protective factors across the entire sample. The findings also indicate a higher prevalence of somatic symptoms among girls compared to boys, as well as an increase in somatic symptomatology with age, particularly during late adolescence.

Key words: *family factors, somatic health, adolescence*

1 CHARAKTERISTIKA PROBLÉMU

Rodina predstavuje primárne vývinové prostredie**,** v ktorom sa formujú základné stratégie zvládania stresu, emočnej regulácie (Cosma et al., 2023). Percepcia rodinných vzťahov ako menej podporných môže prispievať k zvýšenému riziku psychických problémov, ako sú úzkosť, depresívne symptómy alebo psychosomatické ťažkosti (Morris et al., 2007; Eisenberg et al., 2010). Viaceré výskumy ukazujú, že v období dospievania zostáva rodičovská podpora dôležitá i napriek rozvíjaniu vzťahov s rovesníkmi . Rodičovská podpora vplyv je dôležitá pri prevencii úzkostných, depresívnych symptómov, i psychosomatických problémov, ktoré sa v tomto vývinovom období často objavujú ako reakcia na zvýšenú psychosociálnu záťaž (Steinberg, 2001; Rueger et al., 2016; Cosma et al., 2023). Hoci sa adolescenti vyrovnávajú so zvýšenou psychosociálnou záťažou prostredníctvom externalizačných prejavov správania, výskumy poukazujú na to, že môžu reagovať na stres tiež internalizačne, pričom sa u nich môže psychická záťaž manifestovať skôr v podobe somatických ťažkostí. Rozdiely v spôsobe reagovania na stres tak môžu vysvetľovať, prečo sa u niektorých adolescentov objavujú skôr poruchy správania, zatiaľ čo u iných sa stres prejavuje telesnými symptómami (Blatný et al., 2006). Somatické symptómy sa tak v adolescencii môžu objavovať ako funkčný prejav narušenej psychosomatickej adaptácie v kontexte menej podporného rodinného prostredia (Mičková et al., 2018).Uvedená štúdia sústreďuje pozornosť na výskyt somatických problémov adolescentov v súvislosti s rodičovskou vrelosťou, záujmom a prežívaním pocitu bezpečia adolescentov v svojej rodine. Na somatické problémy štúdia nahliada ako na problémy emocionálnej regulácie, nie ako na primárne ochorenie. Somatické symptómy bez jasného organického podkladu sú v súčasnej odbornej literatúre chápané najmä v rámci somatických a príbuzných porúch, pri ktorých telesné prejavy nie sú dôsledkom identifikovateľnej choroby, ale odrážajú dysreguláciu psychických, emočných a psychosociálnych procesov (Campo, 2012; Henningsen et al., 2003). Ich vznik, pretrvávanie alebo zhoršovanie je významne ovplyvňované stresom, emočným prežívaním a spôsobmi regulácie psychickej záťaže, čo posúva dôraz z biologickej patológie na funkčné vysvetlenie symptómov**.** V tomto kontexte štúdia nahliada na výskyt somatickej symptomatologie ako na problém psychosomatickej adaptácie, Prostredníctvom ktorej dochádza k manifestácií psychického napätia na telesnej úrovni (Eminson, 2007; Cerutti et al., 2017). Tradičné vymedzenie organických a funkčných (somatoformných) porúch zdôrazňuje centrálnu úlohu emócií, stresu a psychickej regulácie pri vzniku telesných symptómov, najmä v citlivom období adolescencie (Henningsen et al., 2003).Niektoré výskumy napr. Campo, 2012) zistili, že vyšší výskyt somatických symptómov súvisí so zhoršeným emočným fungovaním a celkovým psychickým zdravím**.** Náročnosť v oblasti emocionálneho fungovania adolescentov je výrazne determinovaná samotným vývinovým obdobím, v ktorom je prítomná vyššia miera vulnerability. Zvýšená vulnerabilita v kontexte prežívania emočného stresu môže prispievať k vzniku, nárastu somatických problémov, jakom sú bolesti hlavy, bolesti brucha, nevoľnosť či celkový telesný komfort (Haugland & Wold, 2001; Nixon et al., 2011; Janssens et al., 2014). Z hľadiska vývinu emočnej regulácie vytvárajú rodinné vzťahy dôležitý faktor psychického zdravia. Vzťahy s rodičmi prispievajú k formovaniu modelov zvládania emócií a stresu. Prežívanie rodičovskej lásky, emocionálnej podpory vytvára pre adolescenta bezpečný kontext, v ktorom sa môže učiť identifikovať, regulovať a verbalizovať vlastné emócie. Naopak, prostredie charakterizované nedostatkom emocionálnej podpory alebo neadekvátnou formou rodičovského záujmu môže zvyšovať emočné napätie. Rovnako primeraný rodičovský záujem, ktorý rešpektuje autonómiu adolescenta predstavuje ochranný faktor v psychickom vývine a naopak nadmerná kontrola alebo prežívanie emocionálna nedostupnosti môžu pôsobiť ako rizikový faktor vo vývine psychosomatických ťažkostí (Booth & Gerard, 2011; Cerutti et al., 2017). Rodinné vzťahy tak predstavujú dôležitý faktor determinujúci spôsob, akým adolescent spracúva stres a či sa jeho psychická záťaž manifestuje aj na telesnej úrovni (Eminson, 2007; Morris et al., 2007). Problematika psychosomatického zdravia je stále aktuálnou témou psychologických výskumov, a narastajúci výskyt somatických problémov v období adolescencie naznačuje dôležitosť skúmania faktorov psychosomatického zdravia.

1.2. Výskumný cieľ

Cieľom je preskúmať výskyt somatickej symptomatológie u adolescentov vo veku 10–19 rokov v súvislostí s rodinnými faktormi (rodičovská vrelosť, záujem, pocit bezpečia v rodine). Ďalším cieľom je identifikovať zo skúmaných rodinných faktorov protektívne a rizikové faktory podieľajúce sa na vzniku somatických problémov. Zároveň je cieľom zistiť medzipohlavné rozdiely vo výskyte somatickej symptomatologie. Osobitná pozornosť je venovaná porovnaniu jednotlivých vekových kohort (10–12 rokov, 13–15 rokov a 16–19 rokov) s cieľom overiť rozdiely vo výskyte somatických symptómov naprieč vývinovými obdobiami adolescencie.

1.3. Výskumná vzorka

Výskumnú vzorku tvorili adolescenti základných a stredných škôl vo veku 10 - 19 rokov, celkový počet adolescentov vo výskume bol 875, z toho 489 dievčat a 386 chlapcov. Vzorka bola rozdelená do troch vekových kategórií: 10–12 rokov (N = 217), 13–15 rokov (N = 322) a 16–19 rokov (N = 335). Výber respondentov bol realizovaný dostupným (príležitostným) výberom. Zber dát prebiehal v školskom prostredí anonymne a dobrovoľne. Respondenti boli pred vyplnením dotazníkov informovaní o dobrovoľnosti účasti. Zber dát bol realizovaný v súlade s etickými zásadami. Pred realizovaním výskumu bol získaný informovaný súhlas rodičov. Administrovanie dotazníkov bolo zabezpečené prostredníctvom študentov psychológie, ktorí boli oboznámení s postupmi zberu dát, etickými zásadami výskumu a pravidlami ochrany osobných údajov.

1.4. Výskumné metódy

Zber dát bol uskutočnený prostredníctvom dotazníkovej metódy SAHA (Social and Health Assessment (Weissberg a kol.,1991, adaptovaný Schwab-Stone a kol. (1995, 1999, overený Rojková, 2017). Položky v dotazníku SAHA sú rozčlenené do dvoch veľkých okruhov. Prvá časť dotazníku SAHA je zameraná na zdroje rizík rizikového správania a protektívne faktory, zatiaľ čo druhá časť dotazníka obsahuje otázky zamerané na dôsledky v oblasti správania a duševného zdravia. Z prvej časti dotazníka bola pre výskumný cieľ použitá škála vztahy s rodičmi a jej subškály Rodičovská vrelosť, rodičovský záujem, pocit bezpečia). Z druhej časti dotazníka SAHA - z otázok mapujúcich dopady na správanie a duševné zdravie adolescentov bola využitá škála internalizovaná psychopatológia (konkrétne subškála Somatické symptómy).

1.5. Procedúra výskumu

Zber dát prebiehal v školskom prostredí na vybraných základných a stredných školách na celom Slovensku. Výber respondentov bol realizovaný dostupným (príležitostným) výberom. Pred realizáciou výskumu boli školy oslovené so žiadosťou o spoluprácu a po udelení súhlasu boli účastníci informovaní o cieli výskumu, dobrovoľnosti účasti, anonymite a možnosti kedykoľvek odstúpiť bez negatívnych dôsledkov. Po ukončení administrácie dotazníkov boli overené psychometrické vlastnosti použitých škál - bola zistená nasledovná hodnota Cronbachovej alfy subškál: Rodičovská vrelosť: $\alpha = 0{,}773$, Rodičovský záujem: $\alpha = 0{,}679$, Somatické symptómy $\alpha = 0{,}696$. Uvedené hodnoty poukazujú na akceptovateľnú vnútornú konzistenciu subškál, pričom najvyššiu reliabilitu dosiahla subškála rodičovskej vrelosti. Následne bola realizovaná viacnásobná lineárna regresná analýza metódou Enter na overenie prediktívneho vzťahu rodinných faktorov k somatickým symptómom, osobitne pre celkový súbor a zvlášť pre dievčatá a chlapcov. Pred použitím regresie boli overené jej predpoklady (normalita reziduí, nezávislosť reziduí – Durbin–Watson, kolinearita – VIF, posúdenie vplyvných prípadov – Cookova vzdialenosť). Na testovanie rodových a vekových rozdielov v somatickej symptomatológii bol vzhľadom na nenormálnu distribúciu premenných použitý neparametrický test (Mann–Whitney U test, Kruskal-Wallisov test) a test trendu (Jonckheere–Terpstra).

1.6 Výsledky

K zisteniu medzipohlavných rozdieľov výskytu somatických problémov (bolesti hlavy, brucha, kožné problémy, pociťovanie zdravotného dyskonfortu) bola použitá komparačná analýza. Na základe deskriptívnej charakteristiky vzorky a na základe výsledkov testovania normality Kolmogorov-Smirnovým testom usudzujeme, že premenné nemajú normálnu distribúciu. Vzhľadom k uvedenému bol použitý neparametrický Mann-Whitneyho U test, ktorého výsledky uvádza tab.1. Následne bola skúmaná prítomnosť somatických symptómov medzi vekovými kohortami. Výsledky sú zobrazené v tab. 2.Následne bola uskutočnená viacnásobná regresná analýza medzi premennými rodičovský záujem, rodičovská vrelosť, pocit bezpečia doma a somatických symptómov, výsledky sú zobrazené v tab 3.

Tab. 1: Mann-Whitney U test: Rozdiely vo výskyte somatických problémov medzi skupinou adolescentních chlapcov a adolescentních dievčat N (M))=386, N(Ž) =489

1	2	Priemerné poradie	U	W	z	P (1-smerná)	r
	M	391,97	76611,00	151302,00	-4,800	0,000	0,16
	Ž	474,33					

Legenda 1. Somatické symptómy 2.Pohlavie

Tab. 1 zobrazuje medzipohlavné rozdiely, konkrétne skupina dievčat dosahuje vyššie priemerné poradie (MR=474,33) v porovnaní s chlapcami (MR=391,97), štandardizovaná hodnota z dosahuje dostatočnú veľkosť (z=-4,80), (U=76611,00; p=0,000). Hoci je tento rozdiel štatisticky významný, veľkosť efektu je malá (r = 0,16**)**. Na základe uvedeného možno konštatovať, že dievčatá ako skupina vykazujú vyšší výskyt somatických problémov v porovnaní s chlapcami, rozdiely medzi jednotlivcami v rámci skupín sú výrazné a hodnoty somatických symptómov sa u dievčat a chlapcov vo veľkej miere prekrývajú.

Tab. 2 Kruskal-Wallisov test a Jonckheere–Terpstra test: Rozdiely vo výskyte somatických symptómov medzi jednotlivými vekovými kohortami (10-12 rokov, 13-15rokov, 16-19rokov)

Somatické symptómy	Rozdiel v somatických symptómoch medzi vekovými kategóriami							
	Vek	N	Priemerné poradie	H	p (1-smerná)	J-T koeficient	Št. J-T koeficient	pJT
	10 – 12	217	392,39	9,461	0,0045	133877,50	2,150	0,016
	13 – 15	322	456,77					
	16 – 19	335	448,20					
	Rozdiel v somatických symptómoch medzi vekovými kategóriami dievčatá							
	Vek	N	Priemerné poradie	H	p (1-smerná)	J-T koeficient	Št. J-T koeficient	pJT
	10 – 12	127	211,35	9,867	0,0035	43904,00	2,689	0,0035
	13 – 15	179	254,75					
	16 – 19	183	258,81					
	Rozdiel v somatických symptómoch medzi vekovými kategóriami chlapci							
	Vek	N	Priemerné poradie	H	p (1-smerná)	J-T koeficient	Št. J-T koeficient	pJT
	10 – 12	90	186,68	1,726	0,211	24605,00	0,393	0,347
	13 – 15	143	201,18					
	16 – 19	152	192,01					

Z tab. 2 : Najmladšia veková kategória adolescentov v rámci celej vzorky dosahuje najnižšie priemerné poradie somatických symptómov (MR_1=392,39) - v porovnaní so skupinou 13-15 ročných adolescentov (MR_2=456,77) a 16-19 ročnými adolescentmi (MR_3=448,20). Hodnota Kruskal Wallisovho testu dosahuje významnú úroveň (H=9,461; p=0,0045), výsledok Jonckheere–Terpstra testu poukazuje na významný pozitívny trend medzi skupinami (št. JT=2,150; p=0,016) v zmysle nárastu somatických symptómov . S pribúdajúcim vekom sa

najvyšší výskyt somatickej symptomatológie vyskytuje u najstaršej vekovej kategórii adolescentov (16-19 rokov).
Frekvencia výskytu bola následne zisťovaná medzi jednotlivými vekovými kohortami zvlášť u adolescentných dievčat a osobitne u adolescentných chlapcov. Taktiež tab. 2 zobrazuje, že skupina najmladších adolescentiek (10-12 rokov) dosahuje najnižšie priemerné poradie somatických symptómov (MR1=211,35) v porovnaní so skupinou 13-15 ročných adolescentiek (MR2=254,75) a 16-19 ročnými adolescentkami (MR3=258,81). Hodnota Kruskal Wallisovho testu dosahuje významnú úroveň (H=9,867; p=0,0035), výsledok Jonckheere–Terpstra testu poukazuje na významný pozitívny trend medzi skupinami (št. JT=2,689; p=0,0035) v zmysle nárastu somatických symptómov s pribúdajúcim vekom. Analýza rozdieľov medzi skupinou chlapcov medzi vekovými kohortami ukazuje, že skupina chlapcov vo vekovej kategórií 10-12 rokov dosahuje najnižšie priemerné poradie somatických symptómov (MR_1=181,68). Najvyššie priemerné poradie somatických symptómov dosahujú chlapci vo vekovej kategórií 13-15 rokov (MR_2=201,18). V ich rozmedzí sa nachádzajú chlapci vo vekovej kategórií 16-19 rokov, ktorých priemerné poradie somatických symptómov dosahuje hodnotu MR_3=192,01. Hodnota Kruskal Wallisovho testu nedosahuje významnú úroveň (H=1,726; p=0,211).
Na základe výsledkov v tab. 2 možno konštatovať, že výskyt somatickej symptomatológie je najvýraznejší vo vekovej kategórii 16-19 rokov u dievčat i u chlapcov. U dievčat bol najvýraznejší nárast zaznamenaný v 3 vekovej kategórie (16-19 rokov). U adolescentných chlapcov bol výrazný nárast evidovaný v druhej vekovej kategórií (13- 15 rokov), pričom k nárastu prispieva tiež tretia veková kohorta (16-19). Najnižší výskyt somatickej symptomatológie bol zistený zhodne u dievčat i chlapcov v 1. vekovej kategórií (10-12 rokov).

Tab. 3 Viacnásobná regresná analýza medzi premennými rodičovský záujem, rodičovská vrelosť, pocit bezpečia doma a somatických symptómov

		B	SE	Beta	t	p
spolu	Regresná konštanta	17,695	0,572		30,919	0,000
	Rodičovský záujem	0,173	0,049	0,157	3,549	0,000
	Rodičovská vrelosť	-0,348	0,054	-0,291	-6,405	0,000
	Pocit bezpečia doma	-0,425	0,191	-0,079	-2,226	0,026
dievčatá	Regresná konštanta	17,850	0,986		18,103	0,000
	Rodičovský záujem	0,246	0,091	0,173	2,704	0,007
	Rodičovská vrelosť	0,003	0,103	0,002	0,032	0,974
	Pocit bezpečia doma	-0,648	0,340	-0,094	-1,904	0,057
chlapci	Regresná konštanta	17,634	1,018		17,319	0,000
	Rodičovský záujem	0,132	0,078	0,105	1,704	0,089
	Rodičovská vrelosť	-0,282	0,084	-0,213	-3,365	0,000
	Pocit bezpečia doma	-0,772	0,326	-0,124	-2,367	0,018

Pozn.: Spolu : závislá premenná - somatické symptómy, R^2=0,064, Adj. R^2=0,061; F=19,847; p=0,000
Pozn: dievčatá: závislá premenná - somatické symptómy, R^2=0,084, Adj. R^2=0,079; F=14,856;
p=0,000
Pozn.: chlapci: závislá premenná - somatické symptómy, R^2=0,055, Adj. R^2=0,048; F=7,412; p=0,000

Z tab 3: Regresný model bol štatisticky významný a vysvetlil 6,4 % variability somatických symptómov (R^2 = 0,064; adj. R^2 = 0,061; F = 19,847; p < 0,001). Rodičovský záujem (β = 0,157; t = 3,549; p < 0,001) - vyšší vnímaný záujem súvisel s vyšším výskytom somatických symptómov. Rodičovská vrelosť (β = −0,291; t = −6,405; p < 0,001) - vyššia vrelosť súvisela s nižším výskytom somatických symptómov, Pocit bezpečia doma bol tiež (β = −0,079; t = −2,226; p = 0,026) – prežívania pozitívneho pocitu doma súvisí s nižším výskytom somatickej symptomatológie. Možno konštatovať najsilnejší efekt rodičovskej vrelosti (najvyššia absolútna hodnota β), následne rodičovského záujmu a pocitu bezpečia doma (pre celú vzorku adolescentov.

U dievčat ((N = 489) regresný model bol štatisticky významný a vysvetlil 8,4 % variability somatických symptómov (R^2 = 0,084; adj. R^2 = 0,079; F = 14,856; p < 0,001). Rodičovský záujem (β = 0,173; t = 2,704; p = 0,007) – čím výraznejšia percepcia rodičovského záujmu, tým väčší výskyt somatických problémov, Rodičovská vrelosť sa nepreukázala ako významný prediktor (β = 0,002; p = 0,974), Pocit bezpečia doma bol na hranici štatistickej významnosti (β = −0,094; t = −1,904; p = 0,057.

Regresný model u chlapcov (N = 386) sa ukázal ako štatisticky významný a vysvetlil 5,5 % variability somatických symptómov (R^2 = 0,055; adj. R^2 = 0,048; F = 7,412; p < 0,001). Rodičovská vrelosť (β = −0,213; t = −3,365; p < 0,001) - prežívanie pocitu rodičovskej vrelosti prispieva k znižovaniu výskytu somatických problémov, Pocit bezpečia doma bol (β = −0,124; t = −2,367; p = 0,018) – rovnako prežívanie pocitu bezpečia doma prispieva k nižšej manifestácií somatických symptómov, Rodičovský záujem sa nepreukázal ako významný prediktor (β = 0,105; p = 0,089), hoci smer efektu je pozitívny.

Diskusia

Uvedená štúdia skúmala výskyt somatických symptómov v troch vývinových kohortách adolescentného obdobia (10-12, 13-15, 16-19 rokov. Výsledky ukazujú najvyšší výskyt somatických problémov v najstaršej vekovej skupine adolescentov. Tento vývinový trend v kontexte zvýšeného výskytu somatickej symptomatológie je v zhode so súčasnými výskumnými štúdiami, ktoré poskytujú výskumné zistenia, ktoré poukazujú na nárast somatických symptómov u adolescentov (Cosma et al., 2023; Reib et al., 2024). Taktiež bolo v uvedenej štúdií zistené, že rodičovská vrelosť a pocit bezpečia doma pôsobia ako protektívne faktory, a naopak vnímanie rodičovského záujmu v zvýšenej miere predikuje vyšší výskyt somatických symptómov. Toto zistenie je v zhode s výskumnými zisteniami, podľa ktorých ktorého bezpečné rodinné prostredie prispieva psychickému zdraviu a znižuje pravdepodobnosť telesnej manifestácie psychickej záťaže (Eminson, 2007; Morris et al., 2007). Rodičovská vrelosť sa v tomto kontexte javí ako základný ochranný faktor (Inchley et al., 2020; Sperling et al., 2023). Zároveň výsledky naznačujú, že nie každá forma rodičovskej angažovanosti vytvára ochranný faktor. Konkrétne vysoká miera rodičovského záujmu bola v uvedenom výskumu spojený s vyšším výskytom somatických problémov. Možno uvažovať o tom, že hoci tradične je rodičovský záujem považovaný za pozitívny faktor pre vývin psychického zdravia, je potrebné uvažovať o jeho primeranosti. Môže nadobúdať ambivalentný význam, najmä ak adolescent prežíva rodičovský záujem ako kontrolu, prejavy rodičovského záujmu nie sú sprevádzané rešpektovaním autonómie adolescenta. Toto zistenie poukazuje na potrebu rozlišovať kvalitu a hranice rodičovského správania, nie iba intenzitu záujmu. Rodičovský záujem, resp, jeho zvýšená intenzita, bola identifikovaná iba u adolescentných dievčat nie u chlapcov. Možno sa domnievať, že dievčatá môžu zvýšený rodičovský záujem vnímať ako monitorovanie, tlak alebo obmedzovanie autonómie, čo sa môže prejavovať manifestáciou somatických problémov (Schrijvers et al., 2024). Možno uvažovať tiež o prežívaní zvýšenej miery rodičovského záujmu adolescentných dievčat v kontexte ochrannej funkcii rodičov v súvislosti s dospievaním dievčat. Výskumy ukazujú, že dievčatá v adolescencii pripisujú utváraniu emocionálnych vzťahov vyšší význam v porovnaní s adolescentnými chlapcami a majú tendenciu vykazovať silnejšiu citovú pripútanosť (Furman & Shaffer, 2003; Zimmer-Gembeck, 2016). Možno sa domnievať, že percepcia rodičovského záujmu môže byť vnímaná adolescentnými dievčatami ako prekážka pri utváraní a rozvíjaní ich autonómie. Zvýšený rodičovský záujem, hoci motivovaný starostlivosťou rodičov, môže v tomto kontexte zvyšovať emočné napätie a podporovať rozvoj somatizácie. Naopak, u chlapcov sa potvrdil ochranný význam rodičovskej vrelosti a pocitu bezpečia doma, zatiaľ čo rodičovský záujem sa ako významný prediktor neprejavil. Tento rozdiel podporuje interpretáciu, že chlapci profitujú najmä z emocionálnej stability a dostupnosti rodičov, zatiaľ čo intenzita rodičovskej pozornosti nehrá v oblasti somatických symptómov dôležitú úlohu.

Pri interpretácii výsledkov tejto štúdie je potrebné zohľadniť viaceré metodologické a koncepčné obmedzenia. Prvým limitom je dizajn výskumu**,** ktorý neumožňuje vyvodzovať kauzálne závery o vzťahoch medzi rodinnými faktormi a výskytom somatických symptómov. Zistené asociácie preto nemožno interpretovať ako jednoznačný smer príčiny a následku. Je napríklad možné, že zvýšený výskyt somatických ťažkostí u adolescentov vedie k vyššiemu rodičovskému záujmu, a nie naopak. Ďalším limitom je použitie sebaposudzovacieho dotazníka, ktorý zachytáva subjektívnu percepciu rodinných vzťahov. Hoci je subjektívna percepcia vzťahov psychologicky významná, výsledky môžu byť ovplyvnené aktuálnym emočným stavom adolescentov v čase administrovania. Výskumná vzorka bola získaná dostupným (príležitostným) výberom**,** čo obmedzuje možnosť generalizácie výsledkov na širšiu populáciu adolescentov. Vzorka síce zahŕňala veľký počet respondentov a široké vekové rozpätie, avšak nebola reprezentatívna z hľadiska regionálnych, socioekonomických či kultúrnych charakteristík. Výskum nezohľadňoval množstvo ďalších faktorov, ktoré by mohli modifikovať zistené vztahy napr. (typ rodiny, socioekonomický status rodiny, úroveň fyzickej aktivity, kvalitu rovesníckych vzťahov apod.) Zároveň je potrebné zdôrazniť opatrnosť pri interpretácií subškály rodičovský záujem. Použitá škála neumožňuje detailne rozlíšiť medzi podporujúcim záujmom a nadmernou kontrolou alebo psychologickou kontrolou rodičov. Tento fakt môže byť obzvlášť relevantný pri interpretácii negatívneho efektu rodičovského záujmu u dievčat. Napriek uvedeným limitom poskytuje štúdia poznatky o rodinných faktoroch súvisiacich so somatickými symptómami v adolescencii a vytvára priestor pre ďalšie multidimenzionálne výskumy, ktoré by umožnili hlbšie porozumieť mechanizmom psychosomatického zdravia adolescentov.

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DEVELOPING CRITICAL THINKING AT THE FACULTY OF EDUCATION OF THE UNIVERSITY OF PRESOV FROM STUDENTS' PERSPECTIVES

Sofia Michňáková

Abstract

The study examines the perspectives of students at the Faculty of Education of the University of Presov in Presov (hereinafter referred to as "FE UP in PO") on the development of critical thinking. Empirical research was conducted through a questionnaire survey administered to 100 full-time third-year bachelor's degree students. The results point to several obstacles that, according to students, limit the development of their critical thinking during their studies at the faculty. These include, in particular, the predominant reliance on traditional teaching methods, which do not always fully support the development of critical thinking, and the insufficient awareness of critical thinking among students. An important part of the analysis also focuses on a question aimed at capturing students' own opinions on how teaching could be more effectively oriented towards the development of critical thinking. The students' responses provide a valuable overview of the areas in which they see potential for improvement and suggest approaches that could more effectively support their development in this area.

Keywords: *critical thinking, pre-service teachers, faculty of education*

Introduction

The research shows that in the Slovak education system; university graduates do not achieve the expected level of critical thinking skills. According to the report *Analysis of Findings on the State of the Education System in Slovakia* (Hall et al., 2019), the authors found that more than a fifth (22.4 %) of survey respondents stated that university graduates do not meet the expected level of critical thinking skills. This indicates a significant discrepancy between the perceived importance of analytical thinking in the job application process and the level at which university graduates possess this skill, as observed by HR professionals in Slovakia. Contrary to expectations, surveys indicate that the development of critical thinking in higher education is not a priority for participating students. In questionnaires administered to first- and second-cycle university students, only one-third (33.9 %) of respondents identified critical thinking as a skill developed through their studies. According to the respondents, the development of critical thinking is reported more frequently among second-cycle students (37.5 %) than among first-cycle students. Students recognize the cultivation of critical thinking as a key aspect of higher education, especially in today's world, which is marked by information overload from various sources, requiring critical assessment (Petrasová, 2023). The conclusions of several studies in Slovakia point to an unsatisfactory state of critical thinking among university students, which is significantly below the European average (Kosturková et al., 2018). Based on these findings, it can be concluded that although critical thinking is perceived as important in higher education, its development remains insufficient in Slovakia. The discrepancy between labour market expectations and the actual state of students' critical thinking skills highlights the need for more systematic and targeted approaches in the educational process at all levels of higher education.

1 CRITICAL THINKING

Critical thinking functions as a complex set of mental operations that seeks arguments and admits counterarguments. A good thinker does not necessarily refute them but may also accept them. It involves careful decision-making about what to believe and what not to believe, what to consider important, and what to disregard. The result is the formation of logical judgments (Petrasová, 2023). We understand critical thinking as a set of skills that enables individuals to form opinions on various issues. To do this, they use objective evaluation of facts and try not to be influenced by cognitive errors and distortions. By employing critical thinking, individuals can assess new information, form judgments, and evaluate the significance of information for their own needs and for the needs of society (Straková et al., 2023). Critical thinking is also considered a purposeful and self-directed process of reasoning aimed at interpreting, analyzing, evaluating, and drawing conclusions (Facione, 1990). Based on these definitions, it can be concluded that critical thinking is an essential skill in the process of evaluating information and forming logical judgments. According to Petrasová (2023), graduates of teacher training programs are expected to be able to create an environment that promotes critical thinking in their students. Pedagogical science and its didactic disciplines focus on how to teach students to think. The 21st century brings many changes that society must face, and at the same time, we must prepare future generations for these changes within the school environment. This era is characterized by both the abundance of information and the prevalence of misinformation from unreliable or unverified sources (Bodoríková et al., 2023). The need to develop critical thinking is also emphasized by *the State Education Program for Primary Education* (2024), which states in the profile of a primary school graduate that pupils should apply critical thinking based on knowledge and ethical values. It is important to note that teachers can teach critical thinking effectively only if they understand its principles (Zheldibayeva, Rimantas, 2023). For teachers to be sufficiently prepared and qualified to implement teaching and other activities aimed at developing critical thinking in students, they themselves must have undergone such experiences during their initial and further teacher education (Valenčič Zuljan et al., 2011). Thus, the development of critical thinking appears to be a crucial component of the educational process and of teacher preparation. Liu and Pásztor (2022) emphasized that critical thinking is considered a strategic priority for education by 2050.

1.1 Survey methodology

The main objective of the survey was to find out how students perceive the development of critical thinking at the EF of UP. A partial objective was to determine how, according to students, teaching should be changed to focus more on the development of critical thinking. The survey was conducted using a self-designed questionnaire, which was distributed via email. Several items were based on the report *Analysis of Findings on the State of the Education System in Slovakia*, allowing for comparison between the published data and our findings. The questionnaire contained 12 questions focused on the demographic characteristics of respondents, their motivation for university study and future career direction, and their perception of critical thinking development. Three of these items were open-ended, allowing respondents to formulate their own answers.

1.2 Characteristics of the research sample

A total of 116 respondents participated in the survey, of whom 100 were full-time and 16 were part-time students. Due to the low response rate from part-time students, only full-time students were included in the analysis. The criterion for inclusion in the research was the year of study, specifically the third year of the bachelor's degree.

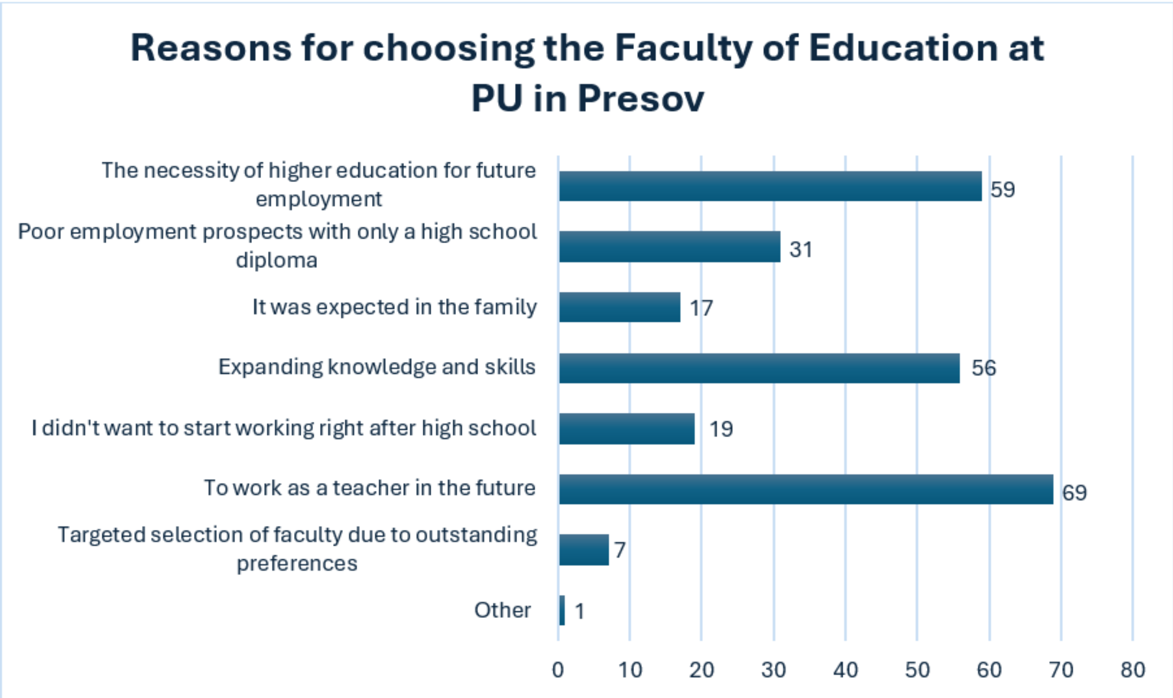
When creating the survey, we defined two research questions:

RQ1: *How do students at the Faculty of Education of the University of Presov perceive the development of critical thinking?*
RQ2: *What changes should be made in teaching, according to students, to make it more focused on the development of critical thinking?*

1.3 Research results

In the first two questions, we focused on students' motivation for choosing the EF of UP (Question 1: *What was the most important reason for your decision to study at the Faculty of Education at PU in Presov?*) and their plans after completing their bachelor's degree (Question 2: *What do you plan to do after completing your bachelor's degree?*). The results show that students' decisions to choose EF of UP are mainly determined by their professional orientation. The most common reason was an interest in a future career in teaching (27 %, n = 69), followed by the requirement of a university degree for future employment (23 %, n = 59) and the desire to expand knowledge and skills (22 %, n = 56). Less common motives included poorer employment prospects with a high school diploma (12%, n = 31), unwillingness to start working immediately after high school (7 %, n = 19), and family expectations (7 %, n = 17). Only 3% (n = 7) of respondents cited the reputation of the faculty as a reason for their choice, while other reasons were mentioned only occasionally.
The Analysis of Findings on the State of the Education System in Slovakia (2018) most frequently cited the following reasons: the necessity of higher education for future employment (52.2 %), expansion of knowledge and skills (30.1 %), and poor employment prospects with only a high school diploma (11. 6%). However, the response "to work as a teacher in the future" (27 %) dominated our sample, which limits direct comparability, since this option was not included in the original report.

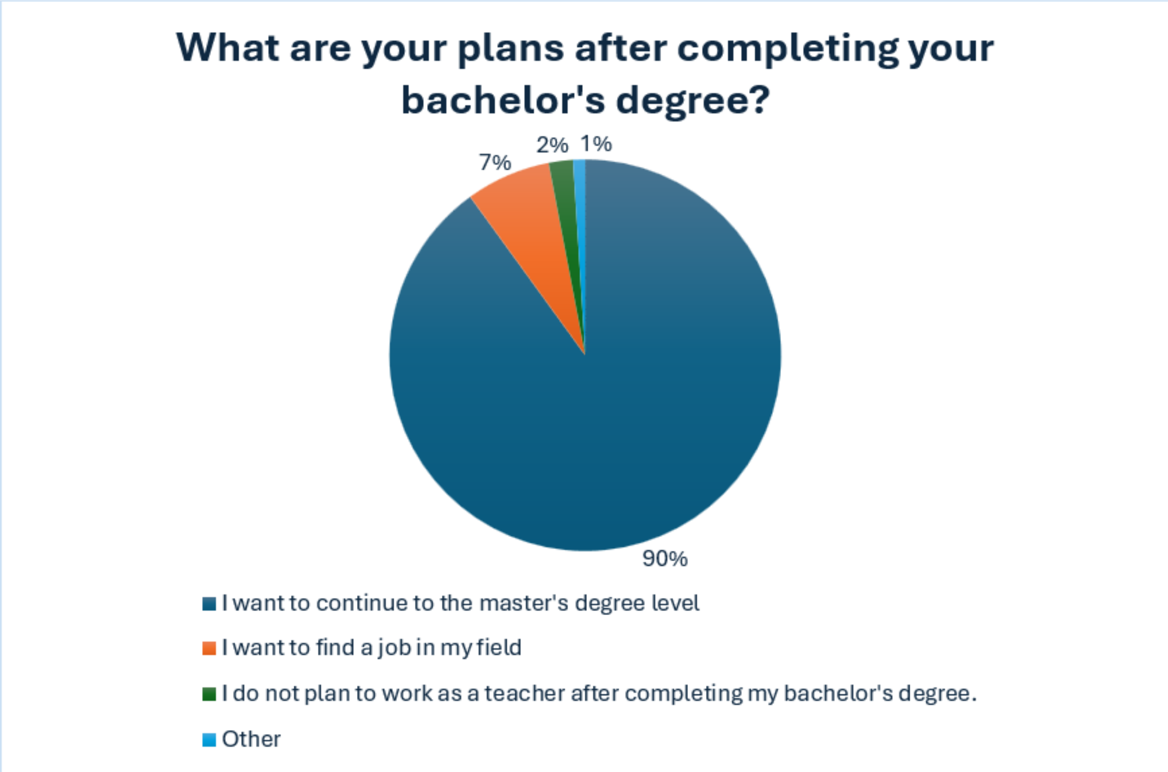
Graph 1 The results from the Question 1



Source: Own work based on research.

For Question 2 (*What do you plan to do after completing your bachelor's degree?*), we received the following responses. The results show that the vast majority of students (90%, n = 90) plan to continue to a master's degree, indicating that they do not perceive a bachelor's degree as sufficient for their future career or for meeting qualification requirements. Only 7% (n = 7) of respondents plan to finish their studies and start working in their field. A small percentage of students do not plan to continue in the teaching profession (2%), and 1% reported other intentions. Overall, the findings reveal a strong preference for academic continuation over immediate transition into practice.

Graph 2 The results from the Question 2



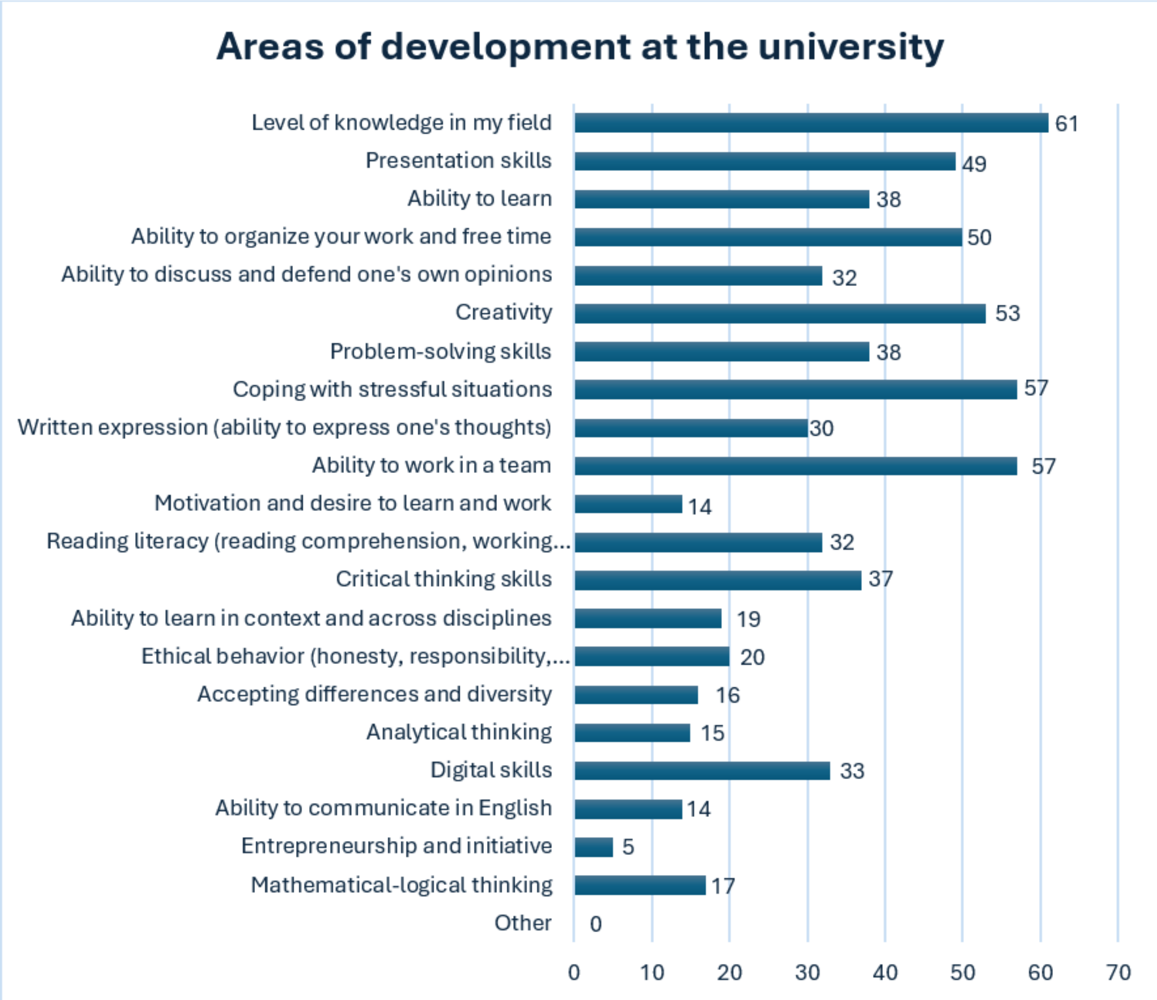
Source: Own work based on research.

Question 3: In which area does your university study develop you the most? The data show that students perceive the most significant development in areas related to practical teaching activities. The highest scores were reported in professional knowledge (61%), creativity (53%), and group cooperation and coping with stressful situations (57%). These findings suggest that study programs provide a solid basis for handling pedagogical and communication challenges and for building competencies needed in a dynamic school environment.

Areas of moderate development included problem-solving skills (38%), the ability to discuss and defend one's own opinions (32%), and critical thinking (37%). Although these values are relatively stable, they are not among the highest, which may indicate that the development of higher-order cognitive processes (analysis, argumentation, evaluation) is perceived by students as supplementary rather than central in current higher education. The low representation of analytical thinking (15%) and mathematical-logical thinking (17%) further points to insufficient emphasis on systematic and logical approaches to problem solving.

Areas such as motivation and willingness to work (14%) and entrepreneurship (5%) were rated the lowest, suggesting that these competencies are either not a primary focus at the Faculty of Education or are developed more individually rather than through structured pedagogical activities.

Graph 3 The results from the Question 3



Source: Own work based on research.

In Table 1 below, we compare the results of individual areas from our research with those from the *Analysis of Findings on the State of Education in Slovakia* (2018). We compared the data with the field of teaching, education, and other pedagogical sciences. It can be concluded that the development of critical and analytical thinking also ranked lower in the nationwide survey. These findings suggest a need for stronger and more systematic support of these competencies.

Table 1 The comparison of the results within selected areas

Area	**Our research** **Results**	**Analysis of findings on the state of education in Slovakia (2018)** **Results**
Level of knowledge in my field	61 %	56, 4 %
Presentation skills	49 %	46,6 %
Ability to learn	38 %	46,4 %
Ability to organize your work and free time	50 %	44,0 %

Ability to discuss and defend one's own opinions	32 %	42,8 %
Creativity	53 %	37,0 %
Problem-solving skills	38 %	37,8 %
Coping with stressful situations	57 %	34,0 %
Written expression (ability to express one's thoughts)	30 %	33,0 %
Ability to work in a team	57 %	31,8 %
Motivation and desire to learn and work	14 %	28,6 %
Reading literacy (reading comprehension, working with text)	32 %	28,1 %
Critical thinking skills	**37 %**	**27,7 %**
Ability to learn in context and across disciplines	19 %	23,6 %
Ethical behaviour (honesty, responsibility, truthfulness)	20 %	23,6 %
Accepting differences and diversity	16 %	21,9 %
Analytical thinking	**15 %**	**17,5 %**
Digital skills	33 %	14,6 %
Ability to communicate in English	14 %	12,1 %
Entrepreneurship and initiative	5 %	8,9 %
Mathematical-logical thinking	17 %	8,4 %
Other:	0 %	1,2 %

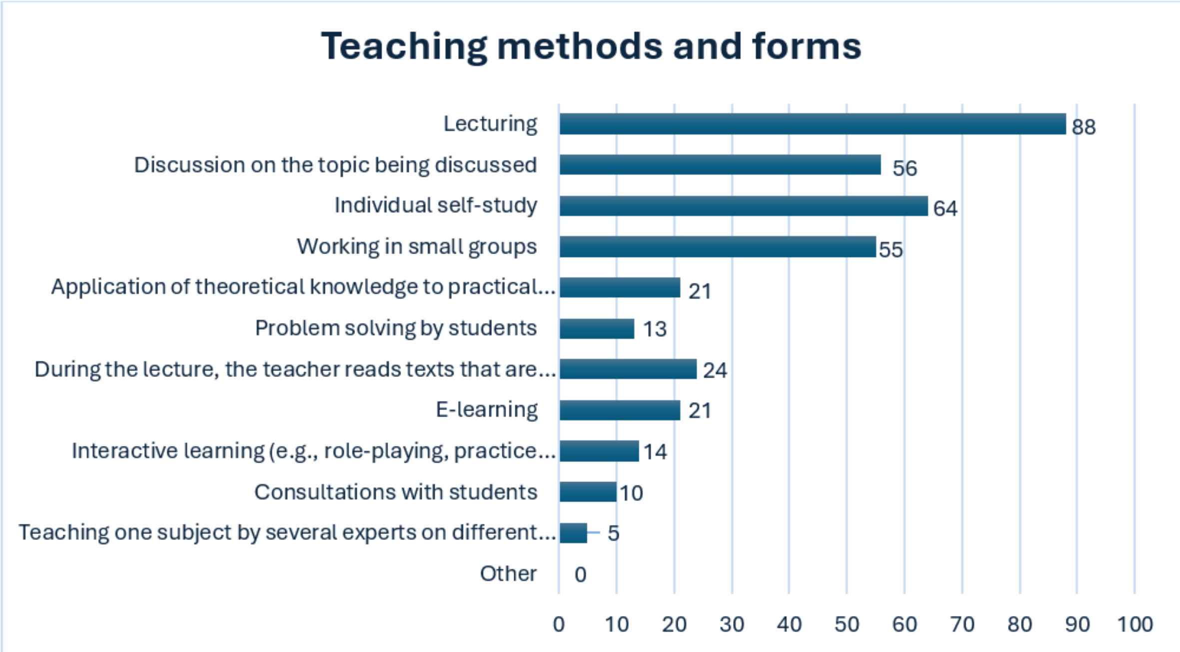
Source: Own work based on research and Analysis of Findings on the State of Education in Slovakia (2018).

In Question 4, we asked: *What teaching methods and forms do teachers use most often?*. The data clearly show that university teaching is still predominantly based on traditional transmissive methods. The most frequently used method is lecturing (88%), which significantly exceeds all other approaches. This result reflects the dominance of frontally oriented instruction, where the teacher serves as the main source of information. This finding is also supported by the relatively high proportion of individual self-study (64%) and the reading of texts by the teacher during lectures (24%).

Methods that incorporate communication and interaction are used to a moderate extent, particularly discussion (56%) and work in small groups (55%). These methods play an essential role in fostering argumentation, reflective thinking, and collaboration, key elements of critical thinking, yet their frequency remains noticeably lower than that of traditional explanation.

The least represented methods are those that lead students to actively solve problems and apply knowledge: applying theory to practice (21%), interactive learning (14%), student-directed problem solving (13%), consultations (10%), and team teaching by multiple experts (5%). These are precisely the methods that most strongly support the development of critical thinking, independence, and creativity, yet they are used only marginally. In particular, “problem solving by students” and “interactive methods” have the lowest representation.

Graph 4 The results from the Question 4



Source: Own work based on research

In Table 2 below, we present a comparison of our data with the *Analysis of Findings on the State of Education in Slovakia* (2018). A comparison of both data sets shows that the structure of teaching methods in Slovak higher education has long been characterized by a strong predominance of the traditional, transmissive model of instruction. The most frequently used method in both measurements is lecturing (88% in our research; 83.8% in the national analysis), which confirms the stability of the frontally oriented approach. This result indicates that, despite ongoing discussion about the need to support critical and analytical thinking, the key characteristics of pedagogical practice have not fundamentally changed over the years.
An interesting finding emerges in the category “work in small groups” (55% in our research; 28.7% in the national analysis). This may be interpreted as a shift toward greater student interaction, aligning with the requirements of constructivist forms of instruction and providing opportunities for the development of argumentation and reflection.

Table 2 The comparison of the methods and forms

Methods and forms	**Our research** **Results**	**Analysis of findings on the state of education in Slovakia (2018)** **Results**
Lecture	88 %	83,8 %
Discussion of the topic	56 %	48,5 %
Individual self-study	64 %	40,7 %

Work in small groups	55 %	28,7 %
Application of theoretical knowledge to practical examples	21 %	35,2 %
Problem solving by students	13 %	28,3 %
The teacher reads texts relevant to the subject matter during the lecture	24 %	29,3 %
E-learning	21 %	13,4 %
Interactive learning (e.g., role-play, practice simulations)	14 %	9,2 %
Consultations with students	10 %	17,1 %
One course taught by multiple experts on different topics	5 %	11,9 %
Other	0 %	0,6 %

Source: Own work based on research and Analysis of Findings on the State of Education in Slovakia (2018).

In the final question, we asked students to "*propose how teaching could be further oriented toward the development of critical thinking.*" When analysing this open-ended item, we systematically classified the individual responses into seven thematic categories. We applied open coding for this purpose. Some responses contained multiple layers of meaning and were therefore segmented and assigned to more than one category to preserve their semantic nuances and more precisely identify the dominant areas of students' suggestions:

A. Discussion and active communication
B. Problem-based tasks, situations, case studies
C. Connection with practice
D. Changes in teaching methods
E. Supportive environment
F. Direct techniques for developing critical thinking
G. Cannot assess / no substantive answer

A total of 42 responses were assigned to Category A. Students strongly emphasized the need for more communication, dialogue, sharing of opinions, argumentation, and mutual listening. They view discussion as a fundamental tool of critical thinking and simultaneously as a way to enhance motivation and the overall learning experience.
Examples:
9: "Ask more about students' opinions and discuss."
29: "More discussion during classes and feedback."
73: "Classes should be equal, both teacher and students engaged in discussion."

Category B comprised 28 responses. Students wish to work on complex situations and search for multiple solutions rather than only identify correct answers. Case studies, model situations, and role-play are seen as opportunities for critical thinking, comparing alternatives, and practicing decision-making.
Examples:
5: "Assign tasks where we must find solutions and examine the issue."
28: "More tasks aimed at solving different situations."

57: “Analyze real situations from practice more frequently and search for several solutions.”

Category C contained 22 responses. Students expect practicality and authentic field-based situations. They need to understand how theory translates into practice and to exercise real-life decision-making. They perceive practice as the environment in which critical thinking develops naturally.
Examples:
14: “Provide more situations and examples from practice so we are prepared.”
35: “Courses should be connected with practice.”
59: “Show us more things from real practice.”

Category D included 22 responses. Students express fatigue from traditional frontal teaching. They call for active methods, more dynamic lessons, participation, and various forms of activation. Less passive monologue and greater involvement in activities are perceived as key to developing critical thinking.
Examples:
16: “Reduce lecturing and passive intake of information.”
47: “More playful activities, even if we are not children.”
98: “More discussion and less lecturing.”

Category E consisted of 9 responses. A safe environment is essential for critical thinking. Students need to feel they can express themselves without fear of ridicule or evaluation. Feedback from teachers is an important motivational factor and supports self-reflection.
Examples:
32: “Create a comfortable atmosphere so we are not afraid to present our opinions.”
40: “Make the classroom a place where students are not afraid to speak up.”
83: “Provide more space for self-reflection.”

Category F contained 16 responses. Some students view critical thinking as a set of concrete techniques: open-ended questioning, verifying sources, searching for arguments, and comparing perspectives. They expect teachers to use these techniques purposefully and to teach them explicitly.
Examples:
1: “Ask open questions, develop argumentation, work with different sources.”
4: “Verify information and compare sources directly during seminars.”
87: “Assign questions aimed at developing critical thinking.”

Category G included 13 responses. This category represents passive or unanswered items. It may indicate lower awareness of the topic, lack of interest, or difficulty imagining specific methods for developing critical thinking.
Examples:
12: “No idea.”
31: “I cannot answer this exactly.”
81: “ .”

1.4 Limitations

We identify the following limitations of this study: a.) The comparison of data was carried out using only one external study. However, given that the items in our questionnaire were derived directly from this study, we considered it important to compare our findings specifically with this source. b.) The research sample was limited to a single Faculty of

Education. The findings therefore cannot be automatically generalised to all Faculties of Education in Slovakia.

Discussion

The main aim of the survey was to examine how students perceive the development of critical thinking at the Faculty of Education of the University of Presov. A partial objective was to determine how, in students' view, teaching should change in order to be more strongly oriented toward the development of critical thinking. The findings offer a coherent overview of how students reflect on their own education and where they see opportunities to strengthen key competencies required for pedagogical practice.

In the area of competency development, students rated the following most positively: collaboration (57%), coping with demanding situations (57%), and subject-matter knowledge (61%). Competencies perceived as less developed include the ability to discuss and defend one's own views (32%), critical thinking skills (37%), and analytical thinking (15%), all essential components of critical thinking development. Although students' evaluation of critical thinking in our sample exceeds the results of the nationwide study from 2018, its development does not constitute a dominant aspect of the educational process.

The analysis of instructional methods used suggests that teaching remains predominantly transmissive in nature. Lecturing (88%), as the most frequently used method, substantially limits opportunities for the development of critical thinking, which requires active participation, problem-based engagement, and argumentation strategies. The open-ended Question 5 confirmed that students themselves recognise the need for greater space for reflection, discussion, and the application of theoretical knowledge in the context of real-world situations.

Overall, although critical thinking is being developed at the Faculty of Education of the University of Presov, it is essential to employ instructional methods that actively support its development. The potential for strengthening critical thinking lies primarily in broader implementation of activating and problem-oriented approaches.

Conclusions

The development of critical thinking is an essential competence of the 21st century and must be fostered at all levels of education. To develop it effectively, we need to employ instructional methods and forms that support critical thinking. At the same time, it is important to communicate about critical thinking as a vital and indispensable part of our lives.

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MOŽNOSTI POSILŇOVANIA NADODBOROVÝCH KOMPETENCIÍ ŽIAKOV II. STUPŇA ZÁKLADNÝCH ŠKÔL CESTOU PREHLBOVANIA ICH REGIONÁLNEHO POVEDOMIA

STRENGTHENING THE KEY COMPETENCES OF SECOND STAGE ELEMENTARY SCHOOLS PUPILS BY DEEPENING THEIR REGIONAL AWARENESS

Dagmar Popjaková, Markéta Slepičková, Daniel Filo

Abstrakt

Príspevok sa zaoberá rozvojom nadodborových (kľúčových) kompetencií žiakov druhého stupňa základných škôl s efektom na prehlbovanie ich regionálneho povedomia. Prezentuje prípadovú štúdiu realizovanú v okresoch Příbram (ČR) a Piešťany (SR), zameranú na rozvoj kompetencie k riešeniu problémov na príklade hodnotenia kvality života vybraných obcí miestneho regiónu. Výučbová aktivita prepájala poznatky z rôznych predmetov a podporovala praktické učenie založené na skúsenosti. Výsledky poukázali na rozdiely v úspešnosti žiakov (82 % ČR, 70 % SR), avšak aj na podobnú mieru rozvoja kľúčových kompetencií, najmä v oblasti komunikácie, spolupráce a organizácie práce. Zároveň štúdia potvrdzuje, že regionálne orientované vzdelávanie posilňuje kritické a geografické myslenie žiakov, ich schopnosť spolupracovať a riešiť problémy, ako aj ich vzťah k miestnej krajine.

Kľúčové slová: *kľúčové kompetencie, miestna krajina, regionálne povedomie, kvalita života*

Abstract

The paper explores the development of cross-curricular competences among lower secondary school students through the enhancement of their regional awareness. It presents a case study conducted in the Czech (CZ) districts of Příbram and Slovak (SK) Piešťany, aimed at fostering problem-solving competences through the evaluation of the quality of life in four municipalities of the local region. The educational activity integrated knowledge across subjects and promoted experiential, practice-based learning. The results indicated differences in students’ achievement levels (82% in CZ, 70% in SK), yet revealed comparable progress in key competences, particularly in communication, collaboration, and work organization. The study confirms that regionally oriented education strengthens students’ critical and geographical thinking, their ability to cooperate and solve problems, as well as their relationship to the local landscape.

Key words: *cross-curricular competencies, local region, regional awareness, quality of life*

1 ÚVOD

Vzťah človeka k priestoru a krajine predstavuje jednu z najstarších a najzásadnejších geografických tém (Tuan 1971, ai.). Súčasná geografia ako interdisciplinárna a multidisciplinárna veda presahuje hranice tradičného poznávania a popisu územia. Školská geografia zase, hranice jednoduchého memorovania geografických pojmov. Moderné vyučovanie zemepisu v rámci slovenského kurikula vzdelávacej oblasti Človek a spoločnosť (ŠVP 2023) smeruje k rozvoju schopnosti žiakov porozumieť javom v priestorových súvislostiach, kriticky ich hodnotiť a aplikovať poznatky na riešenie problémov reálneho sveta. Výučba ašpiruje viesť žiakov k tolerancii, otvorenosti voči iným názorom, spoločensko-kultúrnym postojom, k schopnosti klásť otázky a hľadať odpovede (Karvánková 2013), ale aj k rozvíjaniu kľúčových kompetencií spájaných so životom v 21. storočí. V tomto kontexte sa za vhodnú ukazuje aj téma miestnej krajiny a kvality života v nej, ktorá svojou multidisciplinárnosťou umožňuje prepájať geografiu s ďalšími vyučovacími predmetmi a realizovať v školskej praxi integrované vyučovanie založené na rozvoji nadodborových kompetencií. Aktivita žiakov prepojená na územie, ktoré ich obklopuje, ku ktorému majú mentálny vzťah od ranného detstva, predstavuje zároveň nenásilný a prirodzený spôsob upevňovania ich väzby k miestnemu regiónu a posilňovania ich regionálnej identity (Tomčíková 2023).

Predkladaný text prezentuje prípadovú štúdiu, ktorá spája dve stanovené línie výskumu – 1) percepciu a hodnotenie miestnej krajiny a kvality života v nej samotnými žiakmi, a 2) sledovanie praktického uplatňovania kompetencií žiakov na konkrétnom príklade riešenia podnetov, týkajúcich sa práve daného územia. Tým predstavuje istý model, ako možno tieto témy a prístupy vnášať do kontextu geografického vzdelávania na školách. Poukazuje tiež na potenciál analyzovaných tém nielen pri utvrdzovaní geografického myslenia žiakov, ale aj umocňovaní ich regionálneho povedomia, za súčasného cibrenia nadodborových kompetencií a využívania poznatkov z rôznych predmetov.

2 TEORETICKÉ UKOTVENIE PRÍPADOVEJ ŠTÚDIE

Miestny región a poznávanie jeho charakteru, problémov a ich riešení na príklade konkrétnych indícií a podkladov predstavuje vhodný spôsob zvyšovania záujmu žiakov o ich okolie. To prispieva k posilňovaniu ich väzby k tomuto priestoru. Nástrojmi, prostredníctvom ktorých je možné podnecovať regionálne povedomie, a tým geografické myslenie vo vzdelávaní, sú aj nadodborové kompetencie a medzipredmetové väzby, prepájanie vedomostí z rôznych vyučovacích predmetov. Uvedené predstavuje kostru teoretického rámca článku.

2.1 Nadodborové kompetencie a medzipredmetové vzťahy

Tvoria základný pilier moderného vzdelávania. Prepájajú vedomosti so schopnosťou ich aplikovať. O odbornej príprave založenej na kompetenciách už v 50. rokoch 20. storočia v USA hovorí Hodge (2007, s. 182). Do našich podmienok vzdelávania sa obdobný koncept kľúčových kompetencií preniesol postupne v 90. rokoch. Stal sa základom profilov absolventov reagujúcich na požiadavky zamestnávateľov (Blaško 2010, Černá, Likavský 2014). V odbornej literatúre sa stretávame s viacerými označeniami ako nadodborové, kľúčové, prierezové, prenositeľné či transverzálne kompetencie (Vančo et al. 2016). Všetky zahŕňajú integrovaný súbor vedomostí, zručností a postojov, ktoré umožňujú jednotlivcovi úspešne zvládať pracovné i životné situácie. Ich formovanie je celoživotným procesom, ktorý začína už v predškolskom veku a rozvíja sa prostredníctvom všetkých vzdelávacích oblastí a aktivít školy (DeSeCo 2001). Janík et al. (2009) a Knecht (2014) poukazujú na to, že presahujú hranice jednotlivých predmetov, majú nadodborový charakter a ich rozvoj je efektívnejší než memorovanie izolovaných poznatkov. Moderné vzdelávanie preto usiluje o prepájanie teoretických poznatkov s praktickými zručnosťami, spoluprácou a riešením problémov.

Podľa rámca DeSeCo (2001) možno medzi základné skupiny kompetencií zaradiť:
- schopnosť efektívne používať technológie, jazyk a symbolické systémy,
- schopnosť spolupracovať a komunikovať v rôznorodých skupinách,
- schopnosť samostatného a zodpovedného konania.

V kontexte školského vzdelávania (RVP, 2023 s. 10) sa kľúčové kompetencie konkretizujú ako: kompetencia k učeniu (i), riešeniu problémov (ii), komunikatívna (iii), sociálna a personálna (iv), občianska (v), pracovná (vi) a digitálna (vii). Rozvoj týchto kompetencií sa nerealizuje izolovane v rámci jednotlivých vyučovacích predmetov, ale prostredníctvom koordinovanej pedagogickej stratégie prepájania obsahových celkov vyučovacích predmetov, t. j. realizáciou medzipredmetových vzťahov (Schulz et al. 2019). Kľúčové kompetencie a medzipredmetové vzťahy tak predstavujú základ súčasného konštruktivistického modelu vzdelávania. Ich implementácia do vyučovacieho procesu vedie k učeniu cez „aktivity a skúsenosti“, čím sa podporuje žiakovu predstavivosť, vzbudzuje v ňom túžba objavovať a pestuje jeho kreativita (Savage 2011).

2.2 Miestna krajina a kvalita života ľudí v nej

V odbornej geografickej teoreticko-metodologickej aj didaktickej literatúre a dokumentoch sa objavujú dva okruhy nejednoznačností, spojené s výučbou veľkomierkových regiónov.
I. Prvý sa týka chápania a používania pojmov súvisiacich s uvedenými priestorovo malými územiami. Terminologicky sa ich označenie v našom českom a slovenskom školskom systéme ustálilo ako – miestna krajina, miestny región, lokálny región, mikroregión, malý región (Frey 1973, Kandráčová, Michaeli 1997, Madziková 2002, Butola 2023, Tomčíková 2023, ai.). Uvedené pojmy sa zaužívane vnímajú ako synonymá, aj keď sú isté postihnuteľné rozdiely medzi nimi. Termíny, ktoré subsumujú v názve „región“, predstavujú skôr územie ohraničené hranicami, administratívnymi, prírodnými, v rámci ktorého prebiehajú väzby medzi prvkami, ktoré sú jeho súčasťou (obec, okres, povodie rieky, klimatická zóna ap.). Termín miestna krajina v sebe viac zahŕňa viditeľné fyzické a kultúrne prvky určitého miesta, zdôrazňuje vzhľad, prvky, genius loci. Zjednodušené vyjadrenie rozdielov v chápaní miestny región verzus miestna krajina: región=kam to patrí, krajina=ako to vyzerá.
II. Druhý typ nejednoznačnosti sa týka metodických otázok výučby lokálneho regiónu. Študenti majú často problém prepojiť široké regionálne charakteristiky s ich vlastnými každodennými skúsenosťami. Problém vyučovania miestneho regiónu spočíva preto vo vyvážení abstrakcie s konkrétnosťou, teórie s prežitou skúsenosťou. Prejavuje sa v dvoch rovinách: a) Zatiaľ čo žiaci zvyčajne poznajú svoje bezprostredné okolie, môžu mať problém vnímať, ako ich obec, či susedstvo alebo okres, funguje ako súčasť širšieho regionálneho systému. Táto medzera medzi životnou skúsenosťou a koncepčným chápaním môže viesť k fragmentovaným alebo povrchným vedomostiam. b) Ďalšou výzvou je nadmerné spoliehanie sa na výučbu, ktorá často prezentuje regióny ako statické entity. Takýto prístup zanedbáva dynamické procesy, ktoré formujú lokálne regióny, vrátane ich histórie (Driver, Samuel 1995), miestnej politiky, migrácie, ekonomických otázok a zmien, kultúrnej interakcie a súvislostí, ako aj otázok životného prostredia a kvality životnej úrovne obyvateľov.
Efektívne vyučovanie miestnej krajiny je späté s terénnym pozorovaním, analýzou máp, využívaním lokálnych prípadových štúdií, projektového učenia a podobne. Umožňuje žiakom aktívne skúmať svoje najbližšie, či vzdialenejšie okolie, zhromažďovať si vedomosti o území, identifikovať sa so známym okolím, vytvárať si k nemu vzťah. Priamym zapojením sa do tém svojho najbližšieho okolia, môžu žiaci lepšie pochopiť regionálne súvislosti, priestorové vzťahy a vzájomnú závislosť medzi ľuďmi a miestom, a tým pestovať svoju regionálnu identitu. Na základe vyššie uvedeného, miestna krajina predstavuje didaktický prostriedok pre rozvoj nielen priestorového myslenia, regionálneho a kultúrneho povedomia, ale aj povedomia environmentálneho.
Téma miestneho regiónu úzko súvisí s kvalitou života, pretože práve na lokálnej a mikroregionálnej úrovni sa najvýraznejšie prejavujú každodenné životné podmienky obyvateľov. Miestny región je územnou bázou, vytvára rámec pre dostupnosť služieb, pracovných príležitostí, sociálnych väzieb a environmentálnych podmienok, ktoré zásadne ovplyvňujú potom aj subjektívne a aj objektívne hodnotenie kvality života. Platí aj reverzný vzťah, že charakter krajiny, jej história spojená s vývojom sídel a obyvateľstva a jeho demografických znakov a ekonomicko-sociálnych aktivít v najširšom slova zmysle, a tiež genius loci a regionálna identita daného územia, formujú pocit spolupatričnosti a bezpečia.

Tieto príznaky patria medzi dôležité nehmotné zložky kvality života (Cummins 2000). Kvalita života je teda výsledkom vzájomného pôsobenia priestorových, sociálnych a kultúrnych faktorov, ktoré sa v miestnom regióne koncentrujú a prežívajú v každodennej skúsenosti obyvateľov (Ira, Andráško 2007).

2.3 Geografické myslenie a regionálne povedomie

Úsilím geografického vzdelávania je dosiahnuť, aby sa žiaci okrem zmysluplného a nutne potrebného „všeobecného rozhľadu“, naučili spoznávať a chápať „svet v súvislostiach“. K jeho porozumeniu má napomôcť geografické myslenie (Karvánková, 2013). Práve geografické myslenie ponúka jedinečne silný spôsob ako skúmať a pozorovať svoje okolie a svet v rôznych mierkach od lokálnej po globálnu cez jeho fyzický charakter, aktivity ľudí, ich vzájomné prepojenia a ovplyvňovania (Jackson 2006, Bendl et al. 2024).
Geografické myslenie predstavuje kľúčový faktor pre formovanie regionálneho povedomia, keďže umožňuje porozumieť územiu, priestorovým vzťahom, mierkam a väzbám medzi rôznymi miestami v ňom. Prostredníctvom geografického myslenia si jednotlivci osvojujú schopnosť vnímať krajinu, a vnímať aj región, nielen ako administratívne vymedzené územie, ale i ako dynamický systém zasadený v rámci hierarchického usporiadania územných jednotiek. Prepojenie geografického myslenia a regionálneho povedomia podporuje hlbšie porozumenie vlastného regiónu a posilňuje pripútanosť a zodpovedný vzťah jednotlivca k priestoru, v ktorom žije. Regionálne povedomie odráža emočný vzťah obyvateľov k danému priestoru, rozvíja sa posilňovaním väzby k nemu, a vnímaním jeho priestorových vzorcov a historickej kontinuity (Driver, Samuel 1995, Nikisher 2014).

3 POSTULÁTY A CIELE

Hlavným cieľom výskumu bolo navrhnúť výučbový materiál na tému kvality života miestneho regiónu. A to tak, aby sledoval využívanie nadodborových kompetencií žiakov, zároveň prepájal s geografiou aj ďalšie vyučovacie predmety a zahŕňal niektoré prierezové témy RVP a ŠVP. Zmyslom celej aktivity je tiež upriamenie pozornosti žiakov na prostredie, v ktorom žijú so svojimi rodinami, v ktorom sa mnohí narodili. Nepriamo tak cieľom bolo podporovať záujem žiakov o ich miestny región, o jeho poznanie, o posilňovanie aj emočného vzťahu žiakov k im známemu územiu, a tým o prehlbovanie ich regionálneho povedomia. Pripravená a realizovaná bola prípadová štúdia vo forme výučbovej aktivity pre žiakov. Žiaci sa stávajú pri riešení úloh uchádzačmi o zamestnanie na okresnom Odbore riadenia projektov a dotácií. Ich úlohou je rozhodnúť, ktorá zo štyroch obcí získa dotáciu na skvalitnenie života v obci. Prácu na Odbore získa uchádzač, ktorý premyslí a predloží najkvalitnejší návrh. Práca žiakov bola analyzovaná následne na základe odpovedí žiakov v pracovnom liste a na základe dotazníkového zisťovania medzi žiakmi a učiteľmi, ktorí aktivitu usmerňovali.
Východiskom pri príprave prípadovej štúdie bolo, aby výučbová aktivita pre žiakov spĺňala vopred stanovené podmienky:
a) Výučbová aktivita je viazaná na priestor, ktorý je žiakom bytostne blízky. Je to územie okresu, v ktorom žijú, majú svoj domov a školu. Termín miestny región, viazaný na dané územie okresu, najviac vystihuje priestorovú podstatu predloženej prípadovej štúdie. Preto bude práve tento pojem používaný v ďalšej časti príspevku. Do aktivity boli vybrané štyri obce miestneho regiónu na základe kvótneho výberu (z hľadiska veľkosti, polohy, charakteru). Vybrané boli obce, v ktorých nie je lokalizovaná škola žiakov a s istou pravdepodobnosťou ani ich bydlisko. Na druhej strane žiaci môžu mať na obce väzby rodinné, priateľské a pod.
b) V rámci aktivity pracujú žiaci s reálnymi informáciami, ktoré sa týkajú miestneho, ich blízkeho regiónu. Pracujú teda s reálnym prostredím, ktoré je deťom známe a blízke z počutia, na základe vlastných skúseností alebo cestovania. Aktivita pre žiakov pozostáva z úloh, ktoré

čerpajú z výsledkov dotazníkového výskumu a rozhovorov s náhodne vybranými občanmi. Ich cieľom bolo zistiť vnímanie kvality života v daných štyroch obciach očami ich občanov.
c) Účastníkmi výučbovej aktivity sú žiaci druhého stupňa vybraných základných škôl (ZŠ), konkrétne 9. ročníka. Predpokladá sa, že majú v danom veku najviac odborných znalostí z rôznych vyučovacích predmetov. Tiež aj dostatok zručností, a tiež skúseností spomedzi ostatných žiakov. Ovládajú už určité myšlienkové a pracovné postupy, aj majú potenciál prepojiť odborné znalosti na riešenie zložitejších výučbových úloh, ktoré presahujú hranice odborov. Preto je možné považovať úlohy takéhoto typu za jeden z nástrojov k zapájaniu nadodborových kompetencií (Knecht 2010).
d) V neposlednom rade, aktivita je pripravovaná práve na stimulovanie schopnosti žiakov uplatniť ich nadodborové kompetencie, konkrétne k riešeniu problémov. To znamená, že výskum medzi žiakmi nebol realizovaný v celej šírke problematiky nadodborových kompetencií, pretože táto oblasť zahŕňa príliš široké spektrum rôzne definovaných kompetencií žiakov. Úlohou žiakov je porozumieť reálnemu problému spätému s bežným životom ľudí v miestnom regióne. Ďalej vedieť problém uchopiť, znázorniť, hľadať a navrhovať riešenia a aj svoje riešenia aj konfrontovať s inými riešeniami. A to na príklade posúdenia kvality života obyvateľov vybraných obcí. Aktivita tak zahŕňa v sebe charakter „aktivity a skúsenosti" (Knecht 2010, Savage 2011).
e) Uvedená aktivita predpokladá uplatnenie geografického myslenia žiakov, zapojenie ich priestorovej orientácie a schopnosti hľadania súvislostí. Každým vyššie uvedeným krokom tak podporuje u žiakov pocit spolupatričnosti s miestnou krajinou a regiónom, posilňuje jeho regionálne povedomie.

4 METODIKA VÝSKUMU

Zisťovanie kompetencií žiakov k riešeniu problémov v rámci výučbovej aktivity zameranej na hodnotenie kvality života v miestnom regióne, prebehlo v dvoch etapách. V roku 2017 v českom okrese Příbram, vo forme pilotného výskumu, a potom o tri roky neskôr, v roku 2020 na Slovensku, v okrese Piešťany. V okrese Příbram boli do výskumu zapojené dve triedy 9. ročníka ZŠ pod Svatou Horou v meste Příbram, s počtom 28 žiakov (s pomerom 39 % chlapcov a 61 % dievčat). V okrese Piešťany na aktivite participovali dve ZŠ v obciach s najvyšším a najnižším počtom obyvateľov, v ktorých sa nachádza ZŠ s druhým stupňom (ZŠ Drahovce a ZŠ Rakovice) a jedna mestská škola ZŠ Brezová v Piešťanoch. Spolu sa aktivity zúčastnilo 54 žiakov troch 9. tried (61 % chlapcov a 39 % dievčat).
Zvolená bola forma kvalitatívneho výskumu, kombinovaného s prvkami kvantitatívnych foriem. Výučbová aktivita prebiehala v niekoľkých fázach: 1) prvú úlohu na začiatku výučbovej aktivity má učiteľ, ktorý usmerňuje diskusiu k základným pojmom, predstavuje aktivitu žiakom a vysvetľuje jej podstatu, 2) nasleduje hlavná fáza realizácie aktivity žiakmi, 3) hlavná fáza končí dotazníkovým prieskumom medzi žiakmi, 4) dotazníkové hodnotenie priebehu aktivity učiteľmi, 5) dotazníkové zisťovanie názorov a skúseností učiteľov z praxe na zapájanie aktivít a metód zameraných na posilňovanie nadodborových kompetencií a medzipredmetových vzťahov v ich výučbe (posledná piata fáza nie je predmetom analýzy tomto príspevku). Prvé tri úrovne sa realizujú v priebehu jednej vyučovacej hodiny.

4.1 Usmernenie pre učiteľa

Usmernenie učiteľa ako pracovať so žiakmi počas aktivity, má učiteľ k dispozícii. V priebehu v prvých 10 minút vyučovacej hodiny učiteľ využíva metódu brainstormingu na vysvetlenie základných pojmov spojených s aktivitou, ďalej žiakom predstavuje tému, miestny región, vysvetľuje zadanie a výučbové materiály, pomôcky, pojmy spojené s výučbovou aktivitou (kvalita života a faktory, ktoré ju ovplyvňujú, projektové oddelenie, dotácie apod.,) upresňuje časovú organizáciu aktivity. Napíše na tabuľu čas určený na prácu v skupinách (15 min.), na individuálnu prácu (15 min.), vyplnenie dotazníka (5 min.) a presný čas odovzdania vyplnených materiálov.

Pracovný list

Výberové konanie – odbor riadenia projektov a dotácií v Brezne
PROJEKT - DOTÁCIE NA SKVALITNENIE ŽIVOTA OBYVATEĽOV

Zadanie: Rozhodni, ktorá obec získa dotácie na skvalitnenie života obyvateľov od Odboru dotácií a riadenia projektov v okrese Piešťany. Dotácie môžu získať obce Moravany nad Váhom, Pečeňady, Dolný Lopašov a Šípkové.
Tvoje spracovanie musí obsahovať konkrétne návrh/y, k čomu budú dotácie využité (napr. rekonštrukcia detského ihriska, rozmiestnenie kontajnerov na triedený odpad) a čo bude dôsledkom tejto zmeny v obci. K spracovaniu návrhu môžeš využiť niektoré informácie, ktoré získaš z mapy, z tabuľky alebo z výpovede obyvateľov obce. Neboj sa byť originálny a argumentuj svoje tvrdenia.

1. Skupinová práca: Spolupracuj s ostatnými uchádzačmi o dotáciu.
a. zisti, aké informácie sú užitočné pri riešení kvality života obyvateľov každej obce

b. nájdi nejaký problém kvality života, ktorý by bolo vhodné v obci vyriešiť

c. navrhni vhodné riešenie pre zlepšenie kvality života a diskutuj o nich

2. Samostatná práce: Spracuj vlastný návrh, uveď dôvody, prečo si volil svoje riešenie.
a) Obec, ktorá získava dotáciu, je..............................., pretože ....
....
....
b) Dotácia bude využitá na/k ....
....
....
....
c) Vďaka dotácii bude dôsledkom zmeny v obci:
....
....

Dotazník pre žiakov

Zakrúžkuj správnu odpoveď, na prázdne riadky zapíš svoju odpoveď.

Myslíš si, že sa ti podarilo splniť úlohu

ÁNO **NIE**

Čo ti pomohlo k tomu, aby si splnil úlohu? **Čo ti robilo ťažkosti pri plnení úlohy?**
....
....
....

Bolo pre tebe ťažké rýchlo sa zorientovať v poskytnutých prílohách?
ÁNO **NIE**

Boli všetky informácie v prílohe potrebné k vyriešeniu úlohy?
ÁNO **NIE** **NEVIEM**

Myslíš si, že ku správnemu riešeniu úlohy potrebuješ ďalšie iné informácie?
ÁNO **NIE**

Aké informácie to sú?
....

Kde také informácie získaš?
....

Do akého vyučovacieho predmetu by si zaradil túto úlohu?
....

Využil si nejaké znalosti, ktoré si sa naučil v inom predmete než je geografia?
ÁNO **NIE** **NEVIEM**

O akú znalosť ide?
....

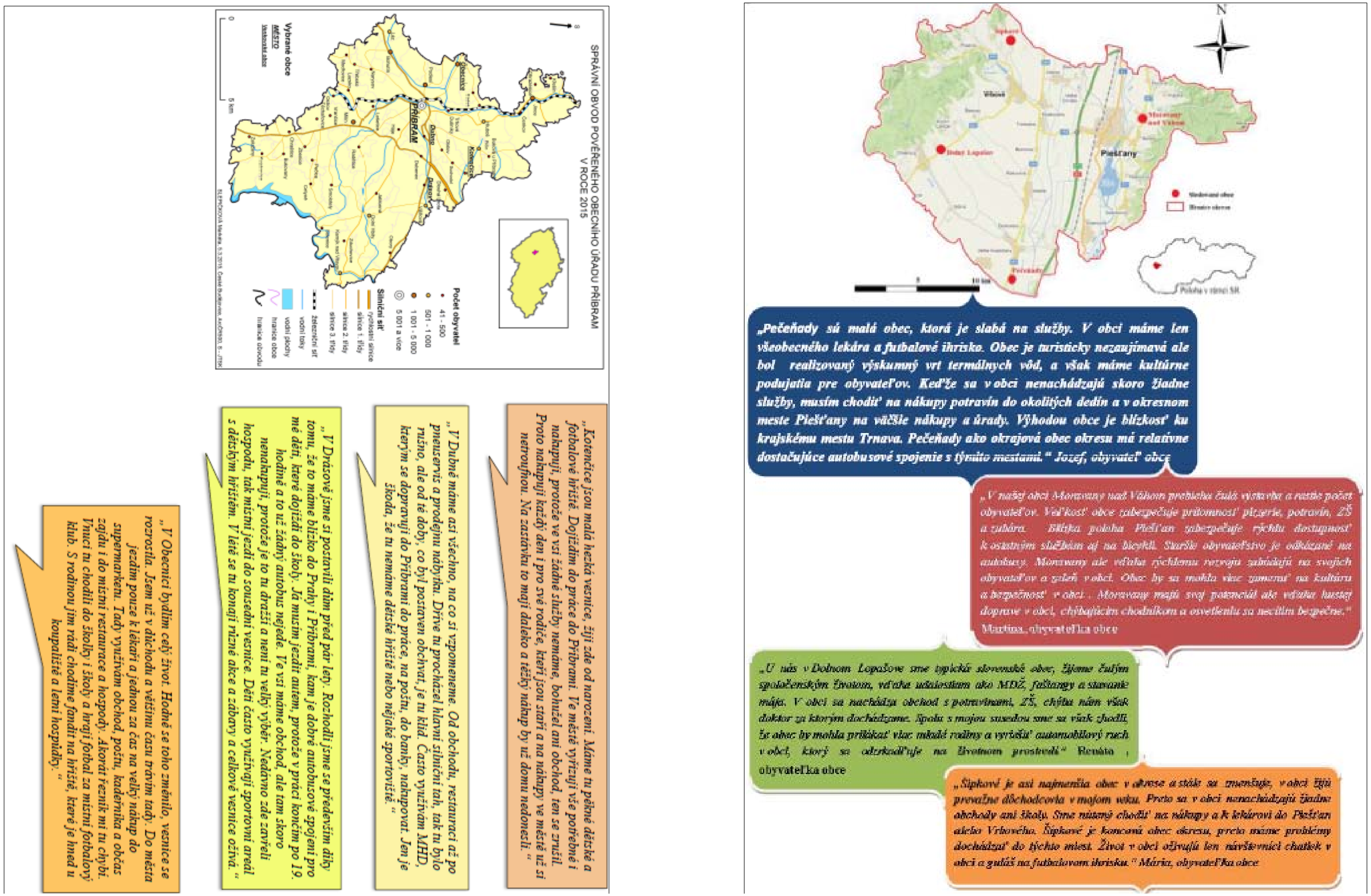
V akom vyučovacom predmete si sa ju naučil?
....

Pomohla ti v riešení úlohy skupinová práca? **ÁNO NIE NEVIEM**
Diskutovali ste v skupine o zadanej úlohe? **ÁNO NIE NEVIEM**
Rozvrhli ste si prácu tak, že každý žiak pracoval na svojej priradenej časti? **ÁNO NIE**
Prichádzali členovia skupiny s dobrými návrhmi? **ÁNO NIE**
Prišiel si ty sám s dobrým návrhom, ako úlohu vyriešiť? **ÁNO NIE**
Dokázal si pred skupinou obhájiť svoj návrh? **ÁNO NIE**

Známka z geografie na poslednom vysvedčení: .... Pohlavie: CH D

Ďakujem Ti za ochotu a vyplnenie dotazníka.

obr. 1 Pracovný list a Dotazník pre žiakov – výskum kompetencií žiakov k riešeniu problémov



obr. 2 Príloha k výskumu kompetencií žiakov k riešeniu problémov – mapa okresu Příbram a Piešťany s výpoveďami obyvateľov

4.2 Priebeh výučbovej aktivity

Výučbová aktivita bola zostavená tak, aby bola pre žiakov zaujímavá, nie bežná, a aby mali žiaci motiváciu sa jej zúčastniť. Snahou bolo upútať záujem žiakov už aj tým, že boli konfrontovaní s informáciami z územia, ktoré im je blízke. Žiaci pracovali s dvomi materiálmi:

a) Pracovný list (obr. 1) – ktorý bol zameraný na výskum kompetencií žiakov k riešeniu problému. Vďaka nemu sa zo žiakov stali na hodine zamestnanci odboru riadenia projektov a dotácií na okresnom úrade. Úlohou žiakov bolo rozhodnúť, ktorá zo štyroch obcí ich miestneho regiónu získa dotácie na skvalitnenie života svojich obyvateľov.

b) Príloha k pracovnému listu (obr. 2) – ktorá pozostáva z mapy okresu so znázornenou sídelnou štruktúrou (poloha a veľkosť obcí okresu) a dopravnou sieťou, a tiež z výpovedí obyvateľov štyroch obcí. Výpovede obyvateľov predstavujú kombináciu osobných názorov obyvateľov o kvalite života v obciach. Na základe nich sa žiaci rozhodujú o pridelení dotácie tej ktorej obci, ktorá by mala pomôcť zvýšiť životnú úroveň v obci. Bez týchto informácií by úlohu žiaci riešiť nemohli.

Výučbová aktivita prebiehala formou samostatnej aj skupinovej práce. Skupinová práca bola do aktivity zaradená z dôvodu relatívne krátkeho času aktivity v rámci jednej vyučovacej hodiny. Druhým dôvodom bolo, že skupinová práca detí umožní sledovanie aj ďalších kompetencií žiakov – občianskych, sociálnych a personálnych, a komunikačných. Počas skupinovej práce bolo úlohou žiakov navrhovať a diskutovať medzi sebou o riešeniach problémov v danej obci. Po skupinovej práci nasledovala samostatná práca každého žiaka, keď mal do svojho pracovného listu zapísať svoje vlastné riešenia a zdôvodnenia rozhodnutia o pridelenej dotácii jednej z vybraných obcí.

4.3 Dotazník pre žiakov

Po skončení aktivity boli žiaci požiadaní o vyplnenie „Dotazníka pre žiakov zameraného na výskum kompetencií žiakov k riešeniu problému“ (obr. 1). Žiaci ho majú pripravený na rube pracovného listu. Dotazník je založený na sebahodnotení žiakov. Obsahuje štyri okruhy otázok – i) subjektívne hodnotenie svojho úspešného alebo neúspešného riešenia aktivity, ii) názor žiaka na poskytnuté materiály a informácie k riešeniu úlohy, iii) tretí okruh tvoria otázky na presah aktivity, týkajú sa názoru žiakov na to, či využívali pri riešení úloh vedomosti z iných vyučovacích predmetov, iv) posledný okruh bol zameraný na hodnotenie skupinovej práce samotnými žiakmi.

4.4 Hodnotenie výučbovej aktivity učiteľom

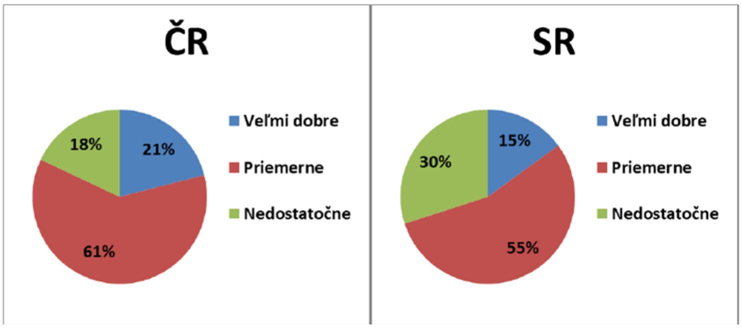
Kompetencia žiakov v oblasti riešenia problémov bola analyzovaná na základe pracovného listu, ktorý slúžil ako hlavný hodnotiaci nástroj. Hodnotenie prebiehalo v troch dimenziách. Prvou bola schopnosť žiaka identifikovať, porozumieť a adekvátne opísať najzávažnejšie problémy ovplyvňujúce úroveň kvality života v obci. Druhým hodnotiacim faktorom bola kvalita navrhnutého riešenia, pričom sa posudzovala jeho reálnosť, logickosť a praktická uskutočniteľnosť. Tretím aspektom hodnotenia bola schopnosť žiaka argumentačne obhájiť svoj návrh riešenia s reflexiou jeho možných dôsledkov.

Vo výučbovej aktivite sa výskum zameriaval predovšetkým na kompetenciu k riešeniu problému. Žiadnu kompetenciu však nie je možné rozvíjať samostatne. A aj počas výskumu boli sledované nakoniec viaceré kompetencie. Počas diskusie a skupinovej práce to boli predovšetkým kompetencie komunikačné. Pri skupinovej práci mohlo byť sledované aj správanie žiakov v skupine, ich ochota spolupracovať – a teda mohla byť hodnotená kompetencia sociálna. Pri samostatnej práci a vypĺňaní pracovného listu bola sledovaná kompetencia pracovná, akou je práca s časom, kreativita a tvorivosť.

Kompetencia komunikatívna bola hodnotená na základe logických zmysluplných odpovedí v pracovnom liste žiaka. A tiež ako celková schopnosť komunikácie pri skupinovej práci aj prostredníctvom pozorovania učiteľmi. Pri *občianskej kompetencii* bola sledovaná schopnosť žiaka argumentovať v rámci skupinovej práce, ale hlavne pri odpovediach na otázky v pracovnom liste. Podľa odpovedí v dotazníku žiaka je možné hodnotiť tiež *kompetencie sociálne a personálne*. Konkrétne, či je žiak schopný sebareflexie a reflexie práce svojej skupiny. *Pracovná kompetencia* žiaka bola hodnotená na základe jeho schopnosti dodržiavať časové limity, a teda schopnosť rozvrhnúť si prácu a odhadnúť čas na ňu potrebný.
Odpoveďami na otázky v dotazníku učitelia hodnotili nielen kompetencie žiakov, ale podobne ako žiaci, boli oslovení poskytnúť ich osobné názory na úspešnosť žiakov pri riešení úlohy, na dostatok času pre žiakov, na posúdenie množstva informácií, v ktorých sa deti museli zorientovať.

5 DISKUSIA VÝSLEDKOV VÝSKUMU NADODBOROVÝCH KOMPETENCIÍ

Výskum potvrdil, že väčšina žiakov má veku primerane rozvinuté skúmané nadodborové kompetencie. Potvrdili to výsledky analýzy prípadovej štúdie. Pri úvodnom brainstormingu boli žiaci schopní jednoducho vysvetliť pojem dotácia. Pojem kvalita života robil žiakom na začiatku väčší problém. Po diskusii začali spájať kvalitu života s peniazmi, majetkom, zdravím, ale aj s automobilovými splodinami, zeleňou. Popisovali kvalitu života ako „životný štýl“, „ako človek žije“, „koľko má človek peňazí“, „ovplyvňuje ju doprava, pretože je veľa áut, veľmi sa práši a ja musím utierať prach každé dva dni“ a pod.
Všetci žiaci sledovaného súboru rozumeli zadaniam aktivity – pracovnému listu aj jeho prílohe. Dokázali identifikovať problémy, a väčšina z nich dokázala predložiť návrh na ich riešenie a tento si dostatočne obhájiť. Motiváciou pre žiakov mohla byť známka 1 pre najúspešnejšieho riešiteľa, ktorý získal vďaka tomu fiktívnu pracovnú pozíciu na Odbore riadenia projektov a dotácií. Pre niektorých žiakov bolo motiváciou aj osobné zainteresovanie, pretože poznali vybrané štyri obce, niektorí z nich dokonca aj pochádzali. Šiesti žiaci z českej skupiny (viac ako pätina) a ôsmi žiaci zo slovenských detí (15 %) navrhli kreatívne riešenia, ktoré prevyšovali úrovňou spracovania ostatné návrhy žiakov (obr. 3). Nimi navrhnuté riešenia boli logické, reálne, dobre premyslené a nápadité. Príklad návrhu žiaka, ako využiť dotáciu pre obec Šípkové: "Na kúpu obecného mikrobusu, ktorý by vozil dôchodcov vo vybrané dni do obchodu a nemocnice v okresnom meste.", pričom by priberal ľudí z obcí, cez ktoré prechádza. Nedostatočne aktivitu vyriešila štvrtina žiakov (18 % vo vzorke žiakov z Českej republiky, ČR a 30 % žiakov zo Slovenskej republiky, SR). Vedeli síce problém identifikovať – „v obci chýba lekár, potraviny, autobusové spojenie...“, no nesnažili sa hľadať nejaké zmysluplné a reálne riešenie alebo nevedeli svoje riešenie problému kvality života v obci obhájiť. Ich riešenia sa obmedzili napríklad na konštatovanie, že treba v obci „postaviť obchody, zriadiť ordináciu lekára, zastávku autobusu...“.
Pri súbore slovenských žiakov boli skúmané výsledky aktivity vo vzťahu k ich známke z geografie na poslednom vysvedčení. Priemerne, žiaci s lepšími známkami dosahovali lepšie výsledky úspešnosti v hodnotení aktivity. Na druhej strane, aj priemerne za všetky sledované školy a aj za školy jednotlivo platí, že najlepšie známky z predmetu geografia (1, 2) neimplikujú automaticky najvyššiu úspešnosť. Najvýstižnejšie je to pri jednotkároch, ktorí predstavovali približne štvrtinu všetkých žiakov. Úlohy aktivity vyriešiť na úrovni veľmi dobre však dokázalo len spomínaných 15 % žiakov, hoci z drvivej časti išlo práce o žiakov, ktorí mali z geografie známku 1. Súčasne sa ukázalo, že úspešnosť dievčat bola o 24 % vyššia ako u chlapcov. Lepšiu úroveň výsledkov potvrdzovali dievčatá aj pri porovnávaní s chlapcami na základe dosiahnutých známok z geografie. Jedným z vysvetlení týchto výsledkov nie je ani tak nižšia rozvinutosť kompetencií u chlapcov, ale ich skôr ich lenivosť a nezáujem o aktivitu, keď tvrdili, že problémy pri práci im robilo *"rozmýšľať" a "robiť ju"*.



obr. 3 Celkové hodnotenie výučbovej aktivity žiakov
Zdroj: Výskum nadodborových kompetencií

5.1 Hodnotenie úspešnosti žiakov v úlohe výučbovej aktivity

Úspešnosť žiakov v splnení úlohy z ČR bol na úrovni 82 %, s tým že 21 % žiakov splnilo úlohu z aktivity hodnotením "Veľmi dobre" a 61 % žiakov dostalo hodnotenie "Priemerne". Naopak zadanie úloh z aktivity sa nepodarilo splniť 18 % žiakom, dostali hodnotenie "Nedostatočne".

Na Slovensku (SR) sa podarilo splniť úlohu 70 % žiakov. Čo predstavuje nižšiu úspešnosť slovenských žiakov o 12 %. Nižšiu úspešnosť oproti žiakom z Českej republiky dosiahli slovenskí žiaci v oboch najvyšších hodnoteniach zhodne, o 6 %. Hodnotenie "Veľmi dobre" dosiahlo 15 % žiakov a hodnotenie "Priemerne" 55 % slovenských žiakov. Úroveň neúspešnosti a dosiahnutia hodnotenia "Nedostatočne" prestavovalo 30 % slovenských žiakov skúmaných vo výskume (obr. 3).

Hoci celková úspešnosť českých žiakov bola vyššia ako slovenských, mali porovnateľne rovnakú mieru využívania kompetencií. Slovenskí žiaci v niektorých aspektoch prekonali českých, keď z odpovedí slovenských žiakov vyplynula lepšia orientácia v poskytnutých informáciách a prílohách. Žiaci na Slovensku rovnako ukázali vyššiu mieru rozdelenia úloh medzi členov skupiny počas skupinovej práce. Tieto skutočnosti sa však neprejavili na konečnom výsledku hodnotenia úspešnosti žiakov pozitívne.

5.2 Hodnotenie kompetencii k riešeniu problémov

Súčasťou hodnotenia kompetencie je aj úspešnosť žiakov v úlohe výučbovej aktivity. Podľa odpovedí žiakov malo problém zorientovať sa s poskytnutými informáciami a v prílohách 29 % českých žiakov. Zo slovenských žiakov malo tento problém len 7,4 %. Podľa 71 % žiakov z výskumu v ČR, im bolo poskytnutých dostatok informácií v prílohách k výučbovej aktivite. Pre úspešné riešenie úlohy nepotrebovali žiadne ďalšie informácie. Vo výskume prebiehajúcom na Slovensku bolo spokojných s množstvom informácií 80 % slovenských žiakov.

Vo výskume v ČR to predstavovalo 6 žiakov, traja žiaci by potrebovali informácie o autobusových spojoch a ďalší traja by uvítali vyšší počet odpovedí od obyvateľov obcí. Ako zdroj týchto informácií by im slúžil v dvoch prípadoch internet a štyria žiaci by získali informácie pomocou rozhovorov s obyvateľmi. Zo vzorky žiakov SR tvoril tento súbor 11 žiakov. Podobne ako v ČR, traja žiaci by potrebovali vyšší počet odpovedí od obyvateľov obcí, dvaja výšku peňažnej hodnoty dotácie a zvyšní 6 žiaci sa vôbec nevyjadrili akú informáciu by potrebovali. Uviedli, že informácie by získali predovšetkým pomocou internetu (5 žiaci) a šiesti žiaci by podobne ako českí, zašli osobne do obce a uvítali by aj rozhovor s miestnymi obyvateľmi.

5.3 Hodnotenie kompetencie komunikácie

Žiaci počas komunikácie v skupine a pri vzájomnej diskusii komunikovali na primeranej úrovni vzhľadom na ich vek. Podobne môžeme takto hodnotiť aj celkovú verbálnu komunikáciu žiakov na Slovensku.

Hodnotenie písomnej formy sa od verbálnej sa v ČR mierne líši. Žiakov, ktorí si nedokázali obhájiť svoj názor, bolo 18 %. Na Slovensku si nedokázalo obhájiť svoj názor až 30 % žiakov. Veľmi dobre svoj názor vedelo v ČR obhájiť a podporiť ho kreatívnymi myšlienkami až 21 % žiakov. Na Slovensku malo túto schopnosť len 15 % žiakov ZŠ. Zvyšné odpovede v ČR (61 %) a SR (55 %) bolo ohodnotených ako priemerné.

5.4 Hodnotenie občianskej kompetencie

Po porovnaní výsledkov výskumu v ČR s výskumom na Slovensku, môžeme hodnotiť obe skupiny žiakov za zhodné. Väčšina žiakov sa aktívne zapájala do skupinovej práce a do diskusie. Žiaci sa pri predkladaní návrhov a protiargumentov boli schopní navzájom nielen rešpektovať a počúvať, ale aj spoločne hľadať východiská slúžiace k všeobecnému prospechu.

5.5 Hodnotenie sociálnych a personálnych kompetencií

Podľa niekoľkých, aj negatívnych odpovedí žiakov v dotazníku sme zistili, že žiaci sú schopní reflexie a sebareflexie. Pri ich odpovediach, ktoré boli zamerané na výsledok a priebeh práce v skupine môžeme potvrdiť, že žiaci ukázali schopnosť porovnať a vyjadriť svoj názor nielen na svoju prácu, ale aj ohodnotiť prácu spolužiakov.

5.6 Hodnotenie pracovných kompetencií

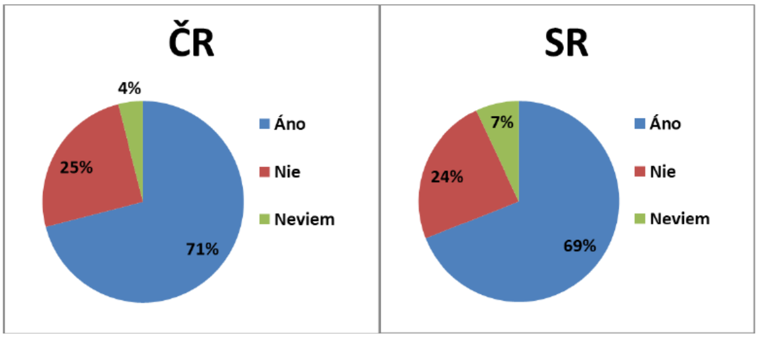
Pri hodnotení oboch výskumov sa potvrdilo, že všetci zapojení žiaci dokázali pracovať s poskytnutým časom a vedeli si efektívne rozvrhnúť prácu tak, aby ju stihli odovzdať pri ukončení časového limitu.

Z pozorovania učiteľov vyplynulo, že väčšina žiakov príliš nespolupracovala. Počas skupinovej fázy si najprv žiaci samostatne prechádzali poskytnuté informácie. K diskusii dochádzalo väčšinou až v druhej polovici poskytnutého času. Menšia časť skupín žiakov si v rámci diskusie rozdelila prácu medzi seba. Vyskytli sa aj skupiny, v rámci ktorých spolupráca ani neprehla.

Prácu v skupine medzi seba rozdelilo a pracovalo na svojej pridelenej časti iba 18 % žiakov z ČR. Nevyužili tak možnosť spolupráce a možnosť ušetrenia času, ktorý by potom využili na dlhšiu diskusiu. Žiaci zo Slovenska uviedli, že až 28 % z nich si prácu v skupine rozdelilo, čo predstavuje o 10 % viac ako uviedli žiaci z výskumu v ČR. Žiaci zo SR ukázali vyššiu schopnosť rozdeliť prácu medzi seba v skupine a ukázali tak vyššiu mieru kooperácie, organizácie a plánovania práce. Neprejavilo sa to ale na lepšom celkovom výsledku výskumu.

5.7 Hodnotenie skupinovej práce učiteľmi aj žiakmi

Samotní žiaci si takmer totožne (českí zo 71 % a slovenskí zo 69 %) myslia, že skupinová práca bola pre nich prínosná a pomohla im k vyriešeniu úloh. Podobne tomu bolo aj pri zápornej odpovedi, keď 25 % žiakov z ČR a 24 % žiakov zo SR sa vyjadrilo, že im skupinová práca nepomohla. Zvyšná časť žiakov nevedela zaujať stanovisko (obr. 4).



obr. 4 Hodnotenie prínosu skupinovej práce žiakmi
Zdroj: Výskum nadodborových kompetencií

Z odpovedí žiakov v oboch výskumoch je možné pozorovať fakt, že 89 % žiakov z ČR si myslí, že práve on prispel do skupinovej práce s dobrým návrhom riešenia a že 75 % členov z jeho skupiny prišlo s dobrým návrhom. Na Slovensku to o sebe tvrdí 83 % žiakov a 78 % je presvedčených, že práve z jeho skupiny vyšiel ten najlepší návrh na riešenie problému. Zaujímavé bolo aj priznanie žiakov, či v ich skupine prebiehala diskusia týkajúca sa riešenia daného problému. Až 14 % žiakov z ČR a 18 % zo Slovenska sa "priznalo", že sa nezapájali do diskusie resp. v ich skupine žiadna diskusia neprebehla.

5.8 Hodnotenie medzipredmetového charakteru výučbovej aktivity žiakmi aj učiteľmi

Analýza odpovedí odhalila výrazné, pritom prirodzené rozdiely v percepcii medzipredmetového charakteru výučbovej aktivity medzi žiakmi a učiteľmi. Prepojenosť predmetov pri riešení aktivity si samotní žiaci príliš neuvedomujú. Tak tomu bolo v polovici prípadov celej vzorky českých a slovenských žiakov. Na druhej strane priemerne necelá pätina žiakov opačne tvrdí, že využila znalosti a vedomosti z iného predmetu. Väčšina z nich hovorí o prepojenosti s občianskou výchovou, odkiaľ čerpali znalosti pojmu dotácia (štyria žiaci) a schopnosť empatie (traja žiaci). Jeden žiak uvádzal využitie základov finančnej gramotnosti získanej na hodinách občianskej výchovy. Tiež jeden žiak spomenul prepojenosť na matematiku (meranie vzdialeností na mape) a jeden žiak využitie čitateľskej gramotnosti z hodín slovenského jazyka. Tretina slovenských a štvrtina českých žiakov si prepojenosť na iné predmety uvedomuje. Avšak pri riešení úloh, podľa ich názoru, nevyužili žiadnu zo znalostí či vedomostí z iných predmetov,
Učitelia pripisovali aktivite širší medzipredmetový charakter. Viac než polovica učiteľov slovenskej a českej vzorky je presvedčená, že žiaci boli nútení využívať poznatky aj z iných predmetov, najmä z oblasti občianskej výchovy a prierezových tém. Napríklad termíny dotácia, investícia, rozpočet, ďalej schopnosť analýzy informácií, logického uvažovania, obhájenia si vlastného názoru, a tiež ekonomickú, finančnú a občiansku gramotnosť.

6 ZÁVER

Moderné geografické vzdelávanie prekračuje hranice tradičného transmisívneho modelu založeného na memorovaní faktografických údajov. Súčasné kurikulárne dokumenty v Českej republike aj na Slovensku (RVP ZV, ŠVP) akcentujú kompetenčný prístup, požiadavku kritického myslenia, schopnosť riešiť komplexné problémy a zmysluplne prepájať poznatky naprieč predmetmi. Geografia v tomto rámci zohráva významnú úlohu v rozvoji priestorovej gramotnosti a globálnej kompetencie žiakov, pričom témy s interdisciplinárnym potenciálom – napríklad kvalita života – umožňujú prepojenie prírodovedných, spoločenskovedných a environmentálnych aspektov vzdelávania.

Miestna krajina ako bezprostredné prostredie každodenného života žiaka zohráva kľúčovú úlohu nielen pri jeho kognitívnom a emocionálnom rozvoji (Kühnlová 1985, Madziková 2002, Tomčíková, Čief 2024), ale aj pri formovaní osobnostných charakteristík, hodnotových orientácií a regionálneho povedomia. Školská geografia tradične vytvára priestor na spoznávanie najbližšieho okolia, no moderné edukačné prístupy ju posúvajú k hlbšiemu poznaniu zmyslu miesta (sense of place), percepcii krajiny a k identifikácii foriem pripútanosti žiakov k ich regiónu. Behaviorálna a humanistická geografia, formovaná sociálno-kultúrnym obratom koncom 20. storočia, priniesla do geografického myslenia koncepty ako identita miesta, regionálna identita či pripútanosť k miestu, ktoré zdôrazňujú citové väzby človeka k priestoru a súčasne poskytujú nové možnosti pre pedagogickú prax (Chromý, Janů 2003, Matlovič 2010, Tuan 2012).
Pilotný výskum realizovaný na území českého Příbramska, poukázal na potenciál využitia tejto témy pri rozvoji kompetencií žiakov. Zároveň otvoril priestor pre porovnanie výsledkov výskumu realizovaného v slovenskom prostredí, na základných školách v okrese Piešťany. V článku prezentované empirické skúmanie regionálneho povedomia a vnímania miestnej krajiny žiakmi vo forme prípadových štúdií a ich výsledky, môže prispieť k diskusii o efektívnejšej implementácii geografických konceptov do výučby, a tým aj ku kultivácii osobnostnej, občianskej, geografickej, aj environmentálnej gramotnosti žiakov v zmysle vnímania udržateľnosti rozvoja krajiny. Zároveň umožňuje sledovať, do akej miery sa žiaci stotožňujú so svojím regiónom, ako interpretujú kvalitu života vo svojom okolí a aké mentálne či hodnotové preferencie formujú ich priestorové vnímanie. Tieto aspekty sú dôležité nielen pre proces učenia, ale aj pre pochopenie širších spoločenských a kultúrnych väzieb, tiež občianskej angažovanosti, ktoré ovplyvňujú formovanie (regionálnej) identity detí a ich regionálneho povedomia.

Afiliácia: príspevok bol podporený z prostriedkov projektu PF KU v Ružomberku GAPF č. 4_1A_25

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REPREZENTÁCIA OBETÍ NÁSILIA V MÉDIÁCH

REPRESENTATION OF VICTIMS OF VIOLENCE IN MEDIA

Lenka Rusňáková, Alžbeta Valeková

Abstrakt

Predkladaná teoretická štúdia má za cieľ objasniť problematiku mediálnej reprezentácie násilia a jeho obetí. Špecificky posudzujeme spôsoby, akými sú obete násilia vyobrazené vo vybraných médiách, s odkazom najmä na slovenské mediálne prostredie. V úvodnej časti textu charakterizujeme nosné pojmy (násilie, násilník, obeť násilia) a hodnotíme aktuálny stav vo sfére mediálnej a právnej ochrany obetí násilia a maloletých divákov pre „násilným" mediálnym obsahom. Následne konkretizujeme dopady mediálnej reprezentácie násilia na spoločnosť a verejnú mienku. Výsledkom riešenia danej témy je posúdenie dôležitosti korektnej mediálnej komunikácie témy násilia smerom k mediálnym publikám a priblíženie sociálno-kultúrnych, mediálnych a eticko-právnych konzekvencií pri nedodržiavaní stanovených produkčných postupov. Za prínos štúdie považujeme formuláciu odporúčaní pre mediálnu prax, s cieľom prispieť ku skultivovaniu spôsobov, akým (nielen) slovenské médiá zobrazujú násilie, násilníka a jeho obete.

Kľúčové slová: *media, mediálny priemysel, mediálna reprezentácia, násilie, násilník, obete násilia, odvetvia mediálneho priemyslu*

Abstract

This theoretical study aims to clarify the issue of media representation of violence and its victims. Specifically, we assess the ways in which victims of violence are portrayed in selected media, with particular reference to the Slovak media environment. In the introductory part of the text, we characterize the key terms (violence, perpetrator, victim of violence) and assess the current state of media and legal protection of victims of violence and minor viewers from "violent" media content. We then specify the impacts of media representation of violence on society and public opinion. The result of addressing this topic is an assessment of the importance of correct media communication of topics of violent to media audiences and an overview of the socio-cultural, media, and ethical-legal consequences of non-compliance with established production procedures. We consider the formulation of recommendations for media practice to be a contribution of the study, with the aim of helping to cultivate the ways in which (not only) Slovak media portray violence, perpetrators, and their victims.

Key words: *media, media industry, media industry sectors, media representation, perpetrator, victims of violence, violence*

1 NAMIESTO ÚVODU SÚČASNÝ STAV RIEŠENEJ PROBLEMATIKY

Téma násilia je frekventovane reprezentovaná cez viaceré odvetvia mediálneho priemyslu (televízny, filmový, novinársky priemysel a i.), ktoré často prinášajú naratívy formujúce citlivosť recipientov voči danej problematike. Spomenieme napríklad nórsky výskum od Näsia a kolektívu. Ten dokazuje, že osoby, ktoré prejavujú vysoký záujem o správy o násilí majú až o 11 % vyššiu pravdepodobnosť vnímať hrozby terorizmu.[1] Cuklanzová ďalej

[1] NÄSI, M. a kol.: Crime news Consumption and fear of violence: The role of traditional media, social media, and alternative information sources. In *Crime & Delinquency*, 2020, roč. 67, č. 4, s. 574-600.

vysvetľuje mediálne mýty o násilí, ktoré o ňom hovoria ako o akte jednotlivca, ignorujúc systémové príčiny násilia.[2] Problémom násilia v médiách sa zaoberá aj viacero organizácií. Z globálneho hľadiska ide napríklad o spoločnosť International Center for Journalists, ktorá v spolupráci s UNESCO skúma vplyv násilia v médiách na spoločnosť a ponúka programy zamerané na zlepšenie žurnalistickej praxe. Na lokálnej úrovni sa tejto téme venujú najmä univerzity, ktoré podnikajú rôzne špecializované výskumy.[3] Mediálni výskumníci sa zaoberajú najmä analýzou dosahu médií na spoločnosť. V tejto súvislosti sa posudzujú audiovizuálne diela, televízne či novinárske obsahy z pohľadu vykresľovanie násilia, násilníkov a obetí násilia. Z naznačených dôvodov má prekladaná štúdia za cieľ objasniť problematiku mediálnej reprezentácie násilia a jeho obetí, špecificky pri posúdení spôsobov, akými sú obete násilia vyobrazené vo vybraných médiách. Primárne sa zameriavame na slovenský mediálny priemysel, avšak predpokladáme, že získané poznatky sú aplikovateľné aj v širšom kontexte.

Anglický ekvivalent slova *násilie – violance* – pochádza z latinského slova *violentia*, čo v preklade znamená *vášnivosť* alebo *prudkosť*. Trestný zákon, konkrétne *Zákon č. 300/2005 Z. z., § 122, ods. 7* objasňuje, že trestný čin je spáchaný násilím v prípade, ak páchateľ použije fyzické násilie proti telesnej integrite druhého človeka alebo pokiaľ páchateľ ľsťou uvedie osobu do stavu bezbrannosti.[4] Okrem právnej definície sa problematike násilia a násilných činov venujú aj ďalšie odvetvia, ako napríklad psychológia, sociológia, medicína, prípadne hnutie feminizmu, mediálne a komunikačné štúdiá a i. Vo všeobecnosti však možno tvrdiť, že násilie je v každom prípade posudzované ako prejav biologických pudov, prejav moci alebo ako reakcia jednotlivca či skupiny ľudí na dlhodobé potláčanie emócií.

Ako poznamenáva Carter a Weaver, vnímanie násilia sa nelíši len od geografickej polohy, no mení sa aj v čase, pričom s geografickou polohou súvisí tradícia, náboženstvo a ďalšie faktory.[5] Príkladom je pohľad na násilie vykonávané na ženách – to je rozdielne posudzované v západnej Európe a inak v Afrike, čo sa následne prejavuje aj v reprezentáciách týchto činov v médiách danej krajiny. Z hľadiska vývoja v čase ide najmä o intenzitu násilia, ktoré recipient prijímal v minulosti a ktoré mu je cez médiá predostierané teraz. Hoci nárast násilia v médiách automaticky neznamená aj nárast násilia v realite, možno konštatovať, že prijímatelia mediálneho obsahu sú v súčasnosti na násilie zvyknutí omnoho viac ako kedysi. Uvedené potvrdzuje aj štúdia porovnávajúca najzárobkovejšie filmové snímky od roku 1970 do konca roka 2020. Výsledky ukazujú, že hoci sa násilie v audiovizuálnych dielach v priebehu rokov znásobilo, jeho stvárnenie je menej realistické a u publika sa, paradoxne, znížila citlivosť na jeho zobrazovanie. Na druhej strane, téma násilia býva mediálnymi tvorcami často bagatelizovaná či normalizovaná, najmä v prípade, keď dochádza k:[6]

- *zobrazovaniu tzv. „nepotrestaného násilia“* – násilná postava nie je v mnohých obsahoch za svoje skutky potrestaná. Spomenieme kriminálno-mysteriózny seriál

[2] CUKLANZ, L.: Representations of gendered violence in mainstream media. In *Questions De Communication*, 2019, roč. 35, s. 307-321.
[3] Pozri: SUŠIENKOVÁ, A.: *Reprezentácia obetí násilia v médiách.* [BP]. Trnava : FMK UCM, 2025. 83 s.
[4] SLOV-LEX.SK: *Zákon č. 300/2005 Z. z. Trestný zákon, § 122, ods. 7.* [online]. [2025-09-18]. Dostupné na: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2005/300/>.
[5] CARTER, C., WEAVER, C. K.: *Violence and the media.* Buckingham, Philadelphia : McGraw-Hill Education, Open University Press, 2003, s. 21.
[6] V porovnaní s: GUO, X.: Research on the influence of media violence on Youth. In *Proceedings of the 2021 International Conference on Social Development and Media Communication (SDMC 2021)*, 2022, roč. 631, s. 1170-1173; RUSŇÁKOVÁ, L., PROSTINÁKOVÁ HOSSOVÁ, M.: Signs and values of mainstream audio visual content intended for children and youth. In *Media Literacy and Academic Research*, 2022, roč. 5, č. 2, s. 26-41; AHMED, A., ELLEDGE, R.: At the movies: The changing face of interpersonal violence in cinema. In *Advances in Oral and Maxillofacial Surgery*, 2023, roč. 12, č. 100462, s. 1-3.

Dexter (2006 – 2013), v ktorom hlavný protagonista, sériový vrah Dexter Morgan, uniká spravodlivosti a žije v „ústraní“;

- *zobrazovaniu tzv. „bezbolestného násilia“* – v audiovizuálnych dielach často absentuje prirodzená reakcia na fyzické násilie, bolesť, čo môže ospravedlňovať dané správanie a skresľovať obraz o skutočnej bolesti vyplývajúcej z vykonaného násilného činu. Tento typ násilia je prítomný predovšetkým v akčných, superhrdinských alebo sci-fi snímkach (napr. séria filmov o nájomnom vrahovi Johnovi Wickovi s Keanu Reevesom v hlavnej úlohe). Hlavným cieľom týchto žánrov totiž nie je zobrazenie následkov násilia, no zámerom tvorcov je najmä zabaviť publiká. Dôsledkom však môže byť normalizácia násilia, prípadne jeho vnímanie ako niečo, čo je „neškodné“;
- *zobrazovaniu tzv. „veselého násilia“* – je prítomné najmä v animovaných snímkach alebo rodinných formátoch, kde je násilie často spájané s humornými situáciami. Ideálnym príkladom sú viaceré celovečerné snímky „pre celú rodinu“ so zastrešujúcim názvom *Sám doma* (orig. *Home Alone*). Zlodeji sú opakovane vážne zranení, vystavení násiliu, avšak bez skutočných následkov, pretože príbeh je poňatý ako akási groteska;
- *zobrazovaniu tzv. „heroického (hrdinského) násilia“* – mediálni tvorcovia esteticky alebo emocionálne ospravedlňujú násilie, často vykonané s dobrým úmyslom kladnou postavou (tzv. pre vyššie účely). Za zmienku stojí niekoľkodielny filmový príbeh o superhrdinskom kolektíve zvanom Avengeri, v ktorom jeho členovia zabíjajú nepriateľov a páchajú rozsiahle násilie s cieľom „zachrániť svet“. Ich činy sú prezentované ako „nutné“, umocnené premyslenou prácou s kamerou a hudbou;
- *zobrazovaniu násilia vykonaného skupinou ľudí* – recipient má väčšie sympatie k skupine postáv, ktoré páchajú násilie, ako k jednotlivcovi (napr. skupina zločincov, dílerov, mafiánov, zlodejov, banditov). Prezentované násilie je často vnímané miernejšie najmä v prípadoch, kedy je skupina násilníkov lojálna, bojuje proti „väčšiemu zlu“, postavy sú psychologicky prepracované a príbeh je prezentovaný z ich perspektívy – napríklad epizodické dielo *Gangy z Birminghamu* (orig. *Peaky Bliders*, 2013 – 2022), v ktorom kriminálna rodina vedená charizmatickým Thomasom Shelbym (Cillian Murphy) pácha rôzne zločiny so zámerom poraziť ešte horšieho nepriateľa (stvárnenie tzv. „mužov činu v drsnom svete“);
- *zobrazovaniu násilia vykonaného atraktívnym hercom či herečkou* – pokiaľ sa násilia dopúšťa postava stvárnená sympatickým hercom alebo herečkou, recipient toto správanie dokáže omnoho jednoduchšie „ospravedlniť“; o to viac, keď dôjde k romantizácii násilného správania. Ako príklad uvádzame celovečerný titul *Veľmi nebezpečné známosti* (orig. *Cruel Intentions*, 1999), v ktorom tínedžeri (Sarah Michelle Gellarová a Ryan Phillipp) manipulujú a emocionálne zneužívajú druhých, pričom ich amorálne činy sú prezentované ako súčasť „hry“, životného štýlu a luxusu;
- *zobrazovaniu tzv. „realistického násilia“* – násilné scény obsahujú konkrétne detaily, pôsobiace mimoriadne realisticky. Hoci tento typ násilia ukazuje bolesť, traumu, smrť ako skutočné následky násilia, jeho sledovanie má na diváka výrazný psychologický dopad. Hoci sa mnohí recipienti cítia pri sledovaní tohto obsahu nepríjemne, často opakovane vyhľadávajú diela podobného typu. Príkladom je dielo *Monštrum: Príbeh Jeffreyho Dahmera* (orig. *Monster: The Jeffrey Dahmer Story*, 2022), ktorý vychádza z reality (tzv. „true crime story“), ukazuje detaily vrážd, zdôrazňuje dôsledky násilia a vyvoláva u recipienta odpor a súcit, nie obdiv alebo zábavu.

Pri skúmaní mediálneho násilia je dôležité zamerať sa aj na jeho rozsah a pomer k iným témam. V danej súvislosti zdôrazňujeme, že spôsob zobrazovania násilia (predovšetkým v spravodajstve) sa postupne stáva čoraz viac bulvárnejším. S týmto javom súvisí pojem *infotainment*, ktorý Pravdová definuje ako mediálny fenomén kombinujúci informácie so zábavou s cieľom upútať pozornosť recipienta. Usporiadanie príspevkov, ale aj ich scenár, sa zameriava na jediný cieľ, a to udržať pozornosť mediálnych publík. Ako autorka uvádza, pre tvorcov je dôležitejšie *bulvarizovať* informácie, ako apelovať na ich dôležitosť. Emfatický princíp je zvolený aj pri výbere obrazových alebo video materiálov. Následkom infotainmentu (a s ním súvisiacej bulvarizácie) je aj obmedzovanie tém, ktoré nie sú dostatočne atraktívne, no súvisia s určitou formou násilia. Medzi ne patrí napríklad ekonomické násilie.[7]

S infotainmentom je úzko spojená aj *symbolická anihilácia*, ktorej vplyvom mediálni producenti zámerne vynechávajú alebo „okliešťujú" určité témy v mediách, čím sa o nich znižuje povedomie zo strany verejnosti. Tuchmannová symbolickú anihiláciu dokazuje na spôsobe, akým boli ženy zobrazované v médiách. Autorka poukazuje na skutočnosť, že dospelé ženy v detských televíznych reláciách boli ešte v nedávnej minulosti primárne prezentované ako ženy v domácnosti, ktoré netvorili platenú pracovnú silu. Symbolická anihilácia v podstate vytvorila akýsi fiktívny model reprezentujúci to, ako to v spoločnosti funguje, čo následne mohlo ovplyvniť jeho ďalšie správanie v budúcnosti. Aktuálnym príkladom môže byť téma utečencov zo Sýrie v tureckých médiách počas pandémie Covid-19. Média prehliadali dôležité problémy, ktorým skupina čelila, ako napríklad obmedzená zdravotná starostlivosť či nedostatok hygienických rúšok. Následkom bola okrem iného aj prehlbujúca diskriminácia v spoločnosti, ktorej utečenci čelili.[8]

Existuje niekoľko ďalších atribútov, podľa ktorých mediálni tvorcovia vyberajú, či téma násilia dostane alebo nedostane priestor v danom médiu. Podľa Jewkesa rozhodnutia týchto tvorcov závisia od toho, či je trestný čin sexuálneho charakteru, či je súčasťou násilnej udalosti známa osobnosť, prípadne kde sa trestný či odohral (doma alebo v zahraničí) a či je doň zapojená mládež.[9] Samozrejme, mimoriadne dôležitá je aj brutálnosť trestného činu, vek násilníka alebo obetí násilia a najmä počet obetí. Špeciálnou formou násilia sú však teroristické činy. Pri organizovanom trestnom čine je totiž kľúčové nerozpútať paniku a najmä nezverejňovať citlivé informácie, ktoré by mohli poškodiť obete násilia, ich blízkych alebo inšpirovať druhých ľudí k podobným útokom. Názorným príkladom je správa Rady pre mediáne služby, ktorá vyšla po teroristickom útoku na Zámockej ulici v Bratislave v roku 2022. Správa reagovala na aktivitu niektorých médií, ktoré počas a po útoku nedodržali etické zásady. Boli to práve žurnalisti a editori predmetných médií, ktorí bezprostredne po útoku publikovali prepisy manifestu a list na rozlúčku, používateľské meno útočníka alebo návody, ako si pozrieť vrahovu diskusiu na platforme 4-chan.[10] Výsledky monitoringu zároveň ukázali, že záujem o mediálne obsahy spojené s teroristickým činom bol násobne vyšší v porovnaní s obsahmi pojednávajúcimi o „bežnom násilí".

V prípade násilného trestného činu sa mediálny tvorca najčastejšie opiera o dve silné emócie, a to je ľútosť voči obeti a odsúdenie násilníka. Zatiaľ čo právnická terminológia (*páchateľ*, *obvinený*, *obžalovaný* a i.) býva dodržiavaná, v mediálnych obsahoch býva násilník prezentovaný prevažne v negatívnom svetle. Negatívne hodnotiace prívlastky najčastejšie súvisia so závažnosťou trestného činu, ktorý bol spáchaný. V danej súvislosti hovoríme najmä o termínoch *brutálny*, *beštiálny*, *maniak*, *manipulátor*, *psychopat*, *šialenec* a pod. Vyskytujú sa však aj vyjadrenia k osobe násilníka, ktoré vyvolávajú pozitívnu emóciu voči páchateľom násilia, napr. *je to úžasný chlap*, *miláčik žien*, *milovaný celým svetom*, *sympaťák*, *priateľský*

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[7] PRAVDOVÁ, H.: Fenomén zábavy a úloha stereotypov v produkcii a recepcii mediálnej kultúry. In *Communication Today*, 2011, roč. 2, č. 1, s. 6-25.

[8] V porovnaní s: TUCHMAN, G.: The symbolic annihilation of women by the mass media. In CROTHERS, L., LOCKHART, C. (eds.): *Culture and politics*. New York : Palgrave Macmillan, 2000, s. 150-174; YÜCEL, A.: Symbolic annihilation of Syrian refugees by Turkish news media during the COVID-19 pandemic. In *International Journal for Equity in Health*, 2021, roč. 20, č. 137.

[9] JEWKES, Y.: *Media and crime*. 3. vyd. Londýn : SAGE, 2015, s. 155.

[10] DREVENÁ, K., RYBNIKÁR, J., RYBÁR, J.: *Teroristický útok na Zámockej ulici v Bratislave.* [online]. [2025-09-18]. Dostupné na: <https://rpms.sk/sites/default/files/2023-03/Teroristicky_utok_na_Zamockej_ul_Bezprostredna_a_preventivne_aktivity_RpMS_na_zamedzenie_sirenia_nelegalneho_a_skodliveho_obsahu.pdf>.

atď.[11] Dôvod, prečo mediálni pracovníci pridávajú násilníkovi hodnotiace prívlastky je ich snaha upútať pozornosť prijímateľa obsahu a zvýšiť atraktivitu správy. S rovnakou motiváciou novinári opisovali prípad brutálnej vraždy, z ktorej bol obvinený Jozef Hanuska. Na internete mal vďaka svojej profesii vytvorené pseudonym „Kuchár Jožko“, ktorým ho v prípade trestného činu zabitia svojej družky „častovala“ väčšina slovenských médií. Táto prezývka následne znižovala vnímanie závažnosti daného činu. Jednoducho, zdrobnenina „Jožko“, chápaná ako deminutívom od vlastného mena Jozef, *trivializovala (zjednodušovala) násilie*, resp. znižovala závažnosť tohto kriminálneho prípadu.

Je potrebné spomenúť aj ďalší súvisiaci termín, ktorým je *dekriminalizácia násilia* v médiách. Daný jav súvisí s procesmi znižujúcimi citlivosť voči vnímaniu násilia verejnosťou, prípadne spôsobuje, že niektoré typy či prejavy násilia sú v spoločnosti akceptované viac ako „tie ostatné“. Tento účinok môžeme pozorovať v audiovizuálnych dielach, kedy sa hlavnou postavou stáva antihrdina. Antihrdinom je spravidla fiktívna postava, ktorá na dosiahnutie svojich cieľov využíva nemorálne konanie, no vďaka svojej pozícii ústrednej postavy príbehu sú jeho činy často mediálnymi tvorcami a samotnými mediálnymi publikami bagatelizované, a teda zľahčované. Príkladom je celovečerný titul *Miki* (2024), ktorý rozpráva príbeh odsúdeného slovenského mafiána Mikuláša Černáka. Vytvorenie snímky o vrahovi, ktorý stále žije, sa však považuje za istú formu *glorifikácie násilia* – následkom takéhoto vyobrazovania môže dôjsť k akceptovaniu krutých činov fiktívnych postáv alebo reálne žijúcich osôb, ale aj k narušeniu vnímania morálky v skutočnom živote.

Vidíme, že násilníci sa v mnohých mediálnych obsahoch zobrazujú s viacerými „pridanými vlastnosťami“. Mediálni tvorcovia týmto spôsobom vyvolávajú v recipientoch určité emócie, či už ide o hnev, odsúdenie alebo o empatiu, súcit. Predpokladáme, že podobným spôsobom mediálnej reprezentácie podliehajú aj obete násilia, pričom *obeť* môže byť definovaná ako osoba, ktorej bola spôsobená ujma ako následok protiprávneho konania. Osoba sa môže stať obeťou aj následkom mimoriadnych a závažných udalostí, za ktoré nenesie vinu iná osoba, ako v prípade živelnej pohromy alebo zlyhania technického zariadenia.[12] Rozdielom medzi *obeťou* a *obeťou násilia* je, že škoda bolo vykonaná inou osobou a so zámerom ublížiť. Právna definícia detailnejšie vysvetľuje, že v prípade obete násilia ide o osobu, ktorej bola spôsobná ujma na zdraví alebo morálna škoda. Pod termínom *morálna škoda* sa pritom rozumie obchodovanie s ľuďmi, znásilnenie, sexuálne násilie alebo sexuálne zneužitie. Pokiaľ osoba následkom násilia zomrela, obeťami sa stávajú jej najbližší.[13]

Pri zhodnotení mediálnej reprezentácie obetí násilia je dôležité zamerať sa na vlastnosti, na ktoré mediálni tvorcovia upozorňujú pri snahe o ich vykreslenie. Zatiaľ čo násilníkom sa prisudzujú prevažne negatívne vlastnosti, pri obetiach sa kladie dôraz na vyvolanie súcitu. Štúdia zameraná na mediálnu reprezentáciu obetí zavraždenými vo vlastnej domácnosti taktiež podčiarkuje fakt, že obeť, vo väčšine prípadov žena, bola označovaná prívlastkami ako *silná*, *odhodlaná*, *láskavá* či *pozorná k potrebám ostatných*. V danom výskume jeho autori poznamenali, že výpovede o obetiach boli striktne len pozitívne.[14] Tento polarizačný pohľad na obeť a páchateľa (násilníka) vytvára o situácii zjednodušený obraz. Vykonanému násiliu totiž takmer vždy predchádzajú udalosti a okolnosti, ktoré daný násilný čin podmienili, avšak táto informácia sa už k mediálnym publikám často nedostane. Či už ide o rodinnú históriu násilníka, psychické problémy alebo o ekonomickú situáciu. Cieľom tohto tvrdenia nie je

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[11] Pre viac informácií, pozri: MÁRIÁSSYOVÁ, A., JUŠČÁKOVÁ, Z: *Zobrazovanie násilia na ženách v médiách. Mediálny monitoring za rok 2020*. Bratislava : Slovenské národné stredisko pre ľudské práva, 2021.

[12] FEDOROVIČOVÁ, I.: Obeť ako zdroj informácií o trestnom čine a jeho ochrana. In JÁNOŠÍKOVÁ, M. (ed.): *Zborník z vedeckej konferencie BPF 2018, sekcia 1.* Brno : Masarykova univerzita v Brne, 2018, s 57.

[13] SLOV-LEX.SK: *Zákon č. 274/2017 Z. z. o ochrane oznamovateľov protispoločenskej činnosti*. [online]. [2025-09-18]. Dostupné na: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2017/274/>.

[14] HAN, L. a kol.: The long-term effect of media violence exposure on aggression of youngsters. In *Computers in Human Behavior*, 2020, roč. 106, č. 106257, s. 1-25.

ospravedlniť násilie alebo spochybniť stav obete, no je mimoriadne dôležité poskytnúť prijímateľom kompletný obraz o realite – práve na takýto spôsob informovania o jave by sa médiá mali sústrediť pri reprezentácií ako násilníkov, tak aj obetí násilia.

Na fenomén, pri ktorom sú obeti násilia v médiách prisudzované pozitívne alebo negatívne vlastnosti sa zameralo aj Slovenské národné stredisko pre ľudské práva. Zistilo sa, že v mediálnom diskurze sa vyskytujú vyjadrenia, ktoré boli zamerané na popis výzoru obete násilia (napr. *atraktívna kráska*, *pekná blondínka*). Niektoré prívlastky však svojím významnom prenášali vinu zo strany násilníka na stranu obete (napr. *neodbytná*, *promiskuitná*).[15] Takáto reprezentácia obete násilia následne môže podnietiť prijímateľa obsahu pripisovať obeti vlastnosti, ktoré s násilnou situáciu vôbec nesúvisia (vzhľad, oblečenie atď.). Ďalej zdôrazňujeme, že spôsob, akým média komunikujú o obetiach násilia odhaľuje zasadne rozdiely v prístupe mediálnych tvorcov k mužom a ženám. Mediálny diskurz o domácom násilí je totiž zameraný viac na ženy v rolách obetí, pričom muži, ktorí sa stanú obeťami domáceho násilia, sú v médiách povačšine „ignorovaní". Podľa kanadskej štúdie realizovanej v rokoch 2004 – 2014 až 64 000 mužov zažívalo psychické či fyzické násilie od partneriek, avšak v médiách sa tejto téme nevenovala toľká pozornosť v porovnaní s násilím páchanom na ženách.[16] Tento údaj ukazuje, že hoci sa problém domáceho násilia týka oboch pohlaví, v médiách je zastúpený nerovnomerne. Rozdiel však nie je len v obsahu mediálnych textov, ale aj v spôsobe ich interpretácie. Ženy najčastejšie podliehajú *victim blaimingu*. Ide o spochybňovanie obete násilia a posudzovanie jej činov, ktoré mohli násilnému skutku predísť alebo ho naopak vyprovokovať. Príkladom je reklama uverejnená v Číne v roku 2021. V reklame bola zobrazená žena prenasledovaná neznámym mužom. Žena na poslednú chvíľu vytiahla z tašky servítky na odličovanie (propagovaný produkt) a odlíčenou tvarou muža odstrašila. Tato reklama naznačovala, že žena je zodpovedná za svoju bezpečnosť tým, ako vyzerá. Na druhej strane muži ako obete násilia podliehajú mužským normám o sile oslabujúcej ich status obete.[17] Laskey, Bates a Taylor doplĺňajú, že násilie voči mužom dokonca býva v médiách často zobrazované s humorom, a preto majú muži obavy vyhľadať pomoc – očakávajú, že ich problémy nebude brať nikto vážne.[18]

Vidíme, že symbolická anihilácia uplatňovaná v médiách má na spoločnosť výrazne negatívny dopad. Problematická je aj téma zobrazovania ľudí so zdravotným znevýhodnením nachádzajúcich sa v pozícii obetí násilia. Podľa austrálskeho výskumu z roku 2023, ktorý skúmal vraždy znevýhodnených osôb a ich prezentáciu v médiách, v mnohých obsahoch absentoval opis obetí násilia so zdravotným znevýhodnením. Médiá sa totiž zväčša zameriavali iba na ich existenciu, často vnímanú ako bremeno pre spoločnosť.[19] Situáciu reflektoval aj tragicky prípad rezonujúci v slovenských médiách. V marci 2024 v blízkosti Liptovského Mikuláša skočila žena so znevýhodneným dieťaťom pod vlak. Média situáciu využili a poukázali na náročné podmienky rodičov, ktorí sa starajú o znevýhodnené deti a o nedostatočný záujem štátu o osoby s fyzickým či psychickým postihnutím. V tomto „mediálnom pokrytí" však absentoval súcit s obeťou (zdravotne znevýhodneným dieťaťom),

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[15] Pre viac informácií, pozri: MÁRIÁSSYOVÁ, A., JUŠČÁKOVÁ, Z: *Zobrazovanie násilia na ženách v médiách. Mediálny monitoring za rok 2020.* Bratislava : Slovenské národné stredisko pre ľudské práva, 2021.

[16] LYSOVA, A., DIM, E. E., DUTTON, D.: Prevalence and consequences of intimate partner violence in Canada as measured by the national victimization survey. In *Partner Abuse*, 2019, roč. 10, č. 2, s. 199-221.

[17] HANSON, K., LYSOVA, A.: The father, the son, and the abuser: The portrayal of male victims of intimate partner homicide in the news media. In *Homicide Studies*, 2021, roč. 27, č. 3, s. 361-383.

[18] LASKEY, P., BATES, E., TAYLOR, J.: A systematic literature review of intimate partner violence victimisation: An inclusive review across gender and sexuality. In *Aggression and Violent Behavior*, 2019, roč. 47, s. 101.

[19] BUITEN, D., CRESCIANI, R.: Representations of violence, representations as violence: When the news reports on homicides of disabled people. In *International Journal for Crime, Justice and Social Democracy*, 2023, roč. 12, č. 3, s. 64-76.

ktorá tragédii nevedela zabrániť. Tento a mnoho ďalších príkladov poukazuje na skutočnosť, že pozornosť médií „určená“ obetiam násilia s istým zdravotným znevýhodnením býva pomerne často (nielen) v slovenských médiách presmerovaná skôr na ich opatrovateľov. V danej súvislosti zdôrazňujeme negatívnu reprezentáciu popisovaných osôb v rôznych audiovizuálnych dielach. Dokazuje to americká štúdia z roku 2022, podľa ktorej bolo až 72 % filmových postáv s mentálnou zdravotnou poruchou „vkladaných do pozície“ páchateľov násilia.[20] Príkladom sú viaceré audiovizuálne diela, napríklad snímky *Joker* (2019), *Rozpoltený* (orig. *Split*, 2016) alebo *Hlasy* (orig. *The Voices*, 2014), zobrazujúce surové správanie hlavných postáv ako následok ich duševných porúch. Uvedená mediálna reprezentácia posilňuje stereotypnú predstavu, že tieto psychiatrické ochorenia často vedú k správaniu nebezpečnému pre spoločnosť a okolie, čo následne prispieva k *stigmatizácii osôb*, ktoré ochoreniami trpia aj v reálnom živote. V spoločnosti sú následne považovaní za nebezpečných a nevyspytateľných jedincov. Vychádzajúc zo zmieňovaného sa dá konštatovať, že osoby so znevýhodnením v spojení s násilím podliehajú viacerým nesprávnym mediálnym interpretáciám, ktoré sa zvyknú „pretaviť“ aj do každodennej reality. Násilie prezentované v mediach sa tak stáva mimoriadne dôležitou témou, ku ktorej je potrebné pristupovať komplexne – nie je dôležité len chrániť recipientov pred takýmito obsahmi, povinnosťou médií je i ochraňovať obete násilia, ktoré sú v médiách často vyobrazované skreslene a/alebo neúplne. Z naznačených dôvodov vznikli (a stále aj vznikajú) rôzne legislatívne, resp. právne nástroje zamerané na ochranu obetí násilia pri zverejňovaní či úniku citlivých informácií v médiách.

2 LEGISLATÍVNE UKOTVENIE PRÁV OBETÍ NÁSILIA PRI ZVEREJŇOVANÍ CITLIVÝCH INFORMÁCIÍ

Média pri komunikácii o násilí zohrávajú kľúčovú úlohu vo formovaní verejnej mienky a šírení povedomia o téme násilia v spoločnosti. Pri zverejňovaní citlivých údajoch však musia dbať na zachovanie súkromia obete, aby nebola poškodená jej integrita. Súčasne je dôležité, aby ochrana obetí nezasahovala do práva na slobodu prejavu a informácií, ktoré sú neoddeliteľnou súčasťou demokratickej spoločnosti. Správne zaobchádzanie s obeťami predpisuje nielen právny rámec vo forme zákonov a nariadení, ale aj etický kódex, ktorý kladie dôraz na citlivý prístup a rešpekt k zraniteľným osobám.

Z právneho hľadiska sa ochrane obetí v slovenskom mediálnom prostredí venuje *Zákon č. 264/2022 Z. z. o mediálnych službách*,[21] ktorý apeluje na vysielateľa, aby rešpektoval ľudskú dôstojnosť. V praxi to znamená, že je zakázané bezdôvodne zobrazovať scény reálneho násilia, kde je ukázaný skutočný priebeh umierania nenáležitou formou alebo sa zobrazujú osoby vystavované fyzickému či psychickému utrpeniu. Tento zákon tiež špecificky pristupuje k obetiam trestných činov alebo k ich príbuzným. Konkrétnejší je *Zákon č. 18/2018 Z. z. o ochrane osobných údajov*,[22] ktorý udeľuje výnimku, vďaka ktorej môžu mediálni pracovníci spracovať osobné údaje bez súhlasu dotknutých osôb, pokiaľ ich potrebujú na informovanie verejnosti. Aj tento paragraf však upozorňuje na skutočnosť, že prevádzkovateľ (médium) v žiadnom prípade nemôže porušiť právo na ochranu osobnosti a súkromia.

Témou ochrany obetí násilia pri zverejňovaní citlivých informácií vo vybraných médiách sa zaoberá aj medzinárodné právo. Slovensko, rovnako ako všetky členské štáty Európskej únie,

[20] PIEPER, K. a kol.: *Distorted depictions: Popular movies misrepresent the reality of mental health.* Annenberg : USC Annenberg Inclusion Initiative, 2023, s. 19.

[21] SLOV-LEX.SK: *Zákon č. 264/2022 Z. z. o mediálnych službách*. [online]. [2025-09-18]. Dostupné na: <https://www.slov-lex.sk/ezbierky/pravne-predpisy/SK/ZZ/2022/264/20230101>.

[22] SLOV-LEX.SK: *Zákon č. 18/2018 Z. z. o ochrane osobných údajov, § 78.* [online]. [2025-09-18]. Dostupné na: <https://www.slovlex.sk/pravne-predpisy/SK/ZZ/2018/18/>.

sa musí riadiť smernicou Európskeho parlamentu z 25. októbra 2012,[23] ktorou sa stanovujú minimálne normy v oblasti práv, podpory a ochrany obetí trestných činov. Článok 21 nariaďuje členským štátom nabádať médiá, aby zaviedli samoregulačné opatrenia, ktoré budú chrániť obete násilia, no zároveň nebudú porušovať právo na slobodu prejavu a informácií. Okrem toho o problematike násilia a obetí násilia hovorí aj Európsky dohovor o ľudských právach. Spomenieme najmä článok 8 garantujúci právo na rešpektovanie súkromného a rodinného života.[24] Pre médiá to znamená nezasahovať do súkromného života obetí trestných, predovšetkým násilných činov a iných zraniteľných osôb.
V prípade medializácie násilia sa špeciálna pozornosť kladie na ochranu detí. Ministerstvo práce, sociálnych vecí a rodiny Slovenskej republiky pre dané účely zriadilo orgán Národného koordinačného strediska pre riešenie problematiky násilia na deťoch, ktoré sa venuje aj odporúčaniam pre média. Jedným z nich je ochrana identity dieťaťa, na ktorom bolo vykonané násilie. U obetí pochádzajúcich z obce alebo malého mesta totiž aj nepatrné detaily (napr. oblečenie, výslovnosť) môžu nechcene identifikovať obeť. Rovnako aj identifikácia údajného alebo odsúdeného páchateľa incestu alebo domáceho násilia môže viesť k stotožneniu obete. Stredisko ďalej vysvetľuje, že odhalenie identity detskej obete môže podstatne zhoršiť pocity zahanbenia a úzkosti, taktiež môže prehĺbiť sociálnu izoláciu a skomplikovať proces zotavovania sa z násilia.[25] Média by preto nemali naliehať na zverejnenie detských obetí v mediálnych obsahoch, hoci by to mohlo pridať na ich atraktivite.
Okrem zákonov by sa mediálni pracovníci mali opierať aj o etický kódex – k téme násilia je podľa etického kódexu dôležité pristupovať so zvýšenou citlivosťou a zodpovednosťou k obetiam a svedkom trestných činov, nehôd alebo iných udalostí, ktorým môže komunikácia s médiami spôsobovať emočný stres. Kódex kladie dôraz aj na spôsob, akým sa média o osobách vyjadrujú. Mediálny pracovník totiž nesmie pri zverejňovaní informácií a záznamov týkajúcich sa otázok verejného záujmu znižovať dobré meno, česť a dôstojnosť dotknutej fyzickej osoby.[26] Na rozdiel od zákonov, porušením kódexu mediálny pracovník riskuje stratu dôveryhodnosti, profesionálne následky zo strany konkrétneho média, ale aj poškodenie reputácie. Tieto následky sa však dostavia až v momente, ako sa obeť rozhodne proti mediálnemu tvorcovi brániť. Na to majú občania niekoľko legálnych nástrojov:
Prvým je kontaktovanie redakcie daného média so žiadosťou o vyjadrenie. Toto právo im ukladá *Zákon o publikáciách*[27] v prípade, že bolo uverejnené nepravdivé alebo neúplné vyjadrenie, ktoré zasahovalo do ich cti, súkromia alebo dôstojnosti. Podnet by mal byť podaný písomne a maximálne do tridsiatich dní od zverejnenia problematického vyjadrenia. Ak kontaktovanie redakcie nepomôže alebo reakcia média nie je uspokojujúca, občania aj právnické osoby sa môžu obrátiť na Tlačovo-digitálnu radu Slovenskej republiky. Tá podnety preverí a pokiaľ dôjde k porušeniu etického kódexu, má právo udeliť upozornenie, varovanie, znepokojenie, vážne znepokojenie alebo pokarhanie.[28] Vyjadrenia však môže rada zverejniť

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[23] EURÓPSKY PARLAMENT A RADA EÚ: *Smernica č. 2012/29/EÚ o minimálnych normách práv obetí trestných činov.* [online]. [2025-09-18]. Dostupné na: <https://eur-lex.europa.eu/legal-content/SK/TXT/?uri=CELEX%3A32012L0029>.
[24] RADA EURÓPY: *Európsky dohovor o ochrane ľudských práv.* [online]. [2025-09-18]. Dostupné na: <https://www.echr.coe.int/documents/d/echr/convention_slk>.
[25] DETSTVO BEZ NÁSILIA: *Ako písať o násilí?* [online]. [2025-09-18]. Dostupné na: <https://detstvobeznasilia.nks.gov.sk/corobitak/ako-pisat-o-nasili/>.
[26] SLOVENSKÝ SYNDIKÁT NOVINÁROV: *Etický kódex novinára.* [online]. [2025-09-18]. Dostupné na: <https://www.ssn.sk/eticky kodex-novinara/>.
[27] SLOV-LEX.SK: *Zákon č. 265/2022 Z. z. o publikáciách.* [online]. [2025-09-18]. Dostupné na: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2022/265/>.
[28] TLAČOVÁ RADA SLOVENSKEJ REPUBLIKY: *Rokovací poriadok Tlačovej rady SR.* [online]. [2025-09-18]. Dostupné na: <https://trsr.sk/wp-content/uploads/2016/05/Rokovaci_poriadok_TR_SR-1.pdf>.

aj na základe vlastnej iniciatívy. To potvrdzuje rozhodnutie z júna 2022[29] – Tlačovo-digitálna rada Slovenskej republiky v ňom konštatovala, že denník Plus 1 deň porušil etický kódex tým, že na titulnú stranu uverejnil fotografiu s ležiacimi telami obetí streľby na Zámockej ulici v Bratislave, pričom jednej z nich bolo vidno časť tváre. Šéfredaktorka denníka sa snažila argumentovať, že uverejnenie bolo vo verejnom záujme, pretože ňou chceli poukázať na obludnosť konania páchateľa, ktorá šokovala celé Slovensko. Rada však tento argument neprijala s odôvodnením, že článok s fotografiou bol publikovaný päť dní po vražde, a teda fotografia neslúžila spravodajsky a informačne, ale ako ilustračný obrázok, ktorý mal zvýšiť záujem o číslo vydania. Rada v prípade vyslovila vážne znepokojenie.
Pokiaľ redakcia podnet príjme a adekvátne zareaguje zverejnením opravy, sťažnosť sa ďalej neprešetruje. Príkladom je rozhodnutie z novembra v roku 2023. Zaslaný podnet sa týkal článku uverejnenom v periodiku MY Trnava s titulkom *V podzemnej garáži City Arény v Trnave zomrel starší muž, všade bolo plno krvi*, v ktorom bola zverejnená autentická fotografia miesta úmrtia obete. Tlačovo-digitálna rada konanie zastavila, pretože šéfredaktor periodika upravil titulok, perex aj fotografiu v súlade s novinárskym kódexom.[30] Na základe týchto a ďalších príkladov je možné zhodnotiť, že na Slovensku (ale i v zahraničí) existujú viaceré právne a etické mechanizmy, ktoré dohliadajú na prácu mediálnych pracovníkov, čo sa týka zverejňovania citlivých informácií, no zároveň sa snažia zabezpečiť médiám slobodu a spravodlivý proces pri prešetrovaní sťažností. Hoci sú tieto procesy dôležité, následky na spoločnosť a najmä na obete násilia sa opravou mediálnych obsahov zvrátiť nedajú.

3 DOSAH REPREZENTÁCIE NÁSILIA V MÉDIÁCH NA SPOLOČNOSŤ A FORMOVANIE VEREJNEJ MIENKY

Spoločnosť vníma násilie cez akýsi „filter“, cez ktorý sa dozvedá informácie o násilníkoch a ich obetiach. Ako uvádzajú Nearyová a Ringrowová, mediálna reprezentácia je spôsob, akým média konštruujú určité aspekty reality prostredníctvom jazyka a obrazov, aby formovali verejné vnímanie. Autorky tvrdia, že vzhľadom na rôzne obmedzenia, akými sú napríklad časové a priestorové požiadavky mediálnych publík, média nikdy nebudú schopné poskytnúť úplný a nestranný obraz prezentovanej reality.[31] Inými slovami, obmedzený rozsah mediálnych obsahov (napr. novinárskych, resp. spravodajských, filmových či televíznych produktov) spôsobuje, že mediálni tvorcovia si vyberajú len nimi preferované fakty, čím ich práca v mnohých smeroch stráca na objektivite. Nedostatočný kontext v kombinácii s nepresným výberom jazykových prostriedkov a vizuálnych reprezentácií následne často vedie k skresleniu obrazu o násilí, čo môže ovplyvniť aj recipientov vo vnímaní sociálno-kultúrnej reality. Na takéto následky je potom možné nahliadať z dvoch hľadísk – ako na násilie reaguje spoločnosť a ako médiami prezentované násilie vnímajú jeho obete.
Dosah médií na spoločnosť (s ohľadom na tému prezentovaného násilia) môže byť zjavný, napríklad v prípadoch, keď médiá prispievajú k legislatívnym zmenám v oblasti domáceho násilia. Na druhej strane môže byť tento vplyv zdanlivo nesúvisiaci, ako napríklad, keď ženy na verejných priestranstvách pociťujú strach podmienený neustálym mediálnym zobrazovaním žien ako obetí násilia. Na popisované aspekty sa dá nahliadať ako na základný „stavebný kameň“ pri presadzovaní pozitívnych zmien v médiách a spoločnosti, no aj ako na nástroj posilňovania stereotypov, znižovania dôveryhodnosti súdov a aj samotných médií. Príkladom pozitívnych zmien je dlhodobé medializovanie konkrétnych prípadov

[29] TLAČOVÁ RADA SLOVENSKEJ REPUBLIKY: *Rozhodnutie č. 06/2022.* Zverejnené 6.6.2022. [online]. [2025-09-18]. Dostupné na: <https://trsr.sk/rozhodnutie-062022/>.
[30] TLAČOVÁ RADA SLOVENSKEJ REPUBLIKY: *Rozhodnutie č. 11/2023.* Zverejnené 6.11.2023. [online]. [2025-09-18]. Dostupné na: <https://trsr.sk/rozhodnutie-11-2023/>.
[31] NEARY, C., RINGROW, H.: Media, power and representation. In RINGROW, H., PIHLAJA, S. (eds.): *The Routledge handbook of English language studies*. Londýn : Routledge, 2018, s. 196.

nebezpečného prenasledovania, v anglickej literatúre označované ako *stalking*. Ako uvádza Klesniaková, ide o úmyselné, opakované, systematické a sústavné prenasledovanie inej osoby. Autorka dopĺňa, že táto mediálna pozornosť vedie k zvýšenému verejnému povedomiu o psychickom a fyzickom obťažovaní a prenasledovaní osôb.[32] Ďalej stojí za zmienku dosah médií na sudcov rozhodujúcich o násilných trestných činoch. Súdna rada Slovenskej republiky v danej súvislosti zverejnila výsledky prieskumu z roku 2017, ktoré dokázali, že podľa 46 % sudcov média viac či menej vplývali, resp. vplývajú na ich individuálne konanie a rozhodovanie. Jednostranné informovanie – najmä v prípadoch závažných zločinov – totiž často burcovalo/burcuje verejnosť, a preto Súdna rada Slovenskej republiky vyzýva k objektívnejšej informovanosti a zlepšeniu mediálnej komunikácie.[33] Rovnako platí, že média disponujú obrovskou silou aj pri formovaní mediálneho obrazu o sudcoch. Napríklad v roku 2024 vydala predsedníčka Súdnej rady Marcela Kosová vyjadrenie odsudzujúce slovné útoky na konkrétnu sudkyňu v Denníku N: „Je veľmi nebezpečné, keď sa v konkrétnom médiu obsahom článkov burcuje verejnosť k nenávistným útokom na sudcu a zároveň sa verejne oznamuje, že rozhodnutia súdov nie sú potrebné a nie je potrebné ich rešpektovať."[34] V prípade, že by spoločnosť stratila dôveru v justičný systém, ktorý funguje ako forma ochrany obetí násilia a trestných činov, výrazne by tým ohrozila i dôveru spoločnosti v iné inštitúcie. Strata dôvery v systém totiž prináša risk narastajúceho strachu medzi obyvateľmi. Je ale jasné, že na mediálnu reprezentáciu násilia odlišne reagujú obete, ktoré cez médiá opätovne čelia prežitým traumatickým skúsenostiam.

Obete po prekonaní násilia prežívajú náročný proces, v ktorom sa s udalosťou musia psychicky vyrovnať. Okrem toho v mnohých prípadoch musia participovať na súdnom procese a vyšetrovaní, kde sa od nich vyžaduje podrobný rozbor udalosti, vrátane detailov a dôkazov, ktoré obeť nie vždy dokáže poskytnúť. V priebehu vyšetrovania sa obeť zároveň môže stretnúť s pracovníkmi, ktorí k nej nepristupujú s dostatočnou citlivosťou. Taktiež sa môže v súdnej sieni s násilníkom stretnúť tvárou v tvár, čo môže byť traumatizujúce. Svoju rolu v tomto procese zohrávajú aj média medializujúce podrobnosti o udalosti, s ktorou sa obeť mnohokrát snaží vyrovnať. Všetky tieto okolnosti zodpovedajú tzv. *sekundárnej viktimizácii*, pričom podľa Masarikovej a Kohútovej môže obeť pociťovať sekundárnu viktimizáciu ako opresiu vo vzťahu s profesionálmi a laikmi, od ktorých táto obeť očakáva v prvom rade podporu či pomoc.[35] Každý participant sekundárnej viktimizácie obete (napr. orgány činné v trestnom konaní, vyšetrovateľ, média, príbuzní) má na obeť iný vplyv v závislosti od úmyslu a spôsobu, akým k situácií pristupuje. S dôrazom na dosah médií na obeť násilia uvádzame, že u obeti sa môže dostaviť pocit nedôstojnosti, ktorú spôsobujú médiá svojou túžbou po dosiahnutí senzácie. Vtedy obeť cíti, že sa pre médiá stáva len zdrojom informácií a nie ľudskou bytosťou. V staršej štúdií Maerckera a Mehra sa dokonca tvrdí, že väčšina skúmaných osôb konfrontovaných so svojím prípadom v médiách reaguje negatívne, najmä pokiaľ mediálny výstup nie je faktický presný.[36]

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[32] KLESNIAKOVÁ, J.: Fenomén stalkingu a pomoc jeho obetiam. In KOŠECKÁ, D. (ed.): *Obete kriminality*. Bratislava : Paneurópska vysoká škola, 2015, s. 135.

[33] SÚDNA RADA SLOVENSKEJ REPUBLIKY: *Prieskum medzi európskymi sudcami potvrdil vysoký vplyv médií na rozhodovanie súdov*. Zverejnené 22.8.2017. [online]. [2025-09-18]. Dostupné na: <https://www.sudnarada.gov.sk/prieskum-medzi-europskymi-sudcami-potvrdil-vysoky-vplyv-medii-na-rozhodovanie-sudov/>.

[34] SÚDNA RADA SLOVENSKEJ REPUBLIKY: *Mediálny útok na sudkyňu nezostane bez reakcie súdnej rady*. Zverejnené 7.12.2024. [online]. [2025-09-18]. Dostupné na: <https://www.sudnarada.gov.sk/medialny-utok-na-sudkynu-nezostane-bez-reakcie-sudnej-rady/>.

[35] MASARIKOVÁ, A., KOHÚTOVÁ, K.: Subjektívna percepcia sekundárnej viktimizácie u obetí sexuálneho zneužívania. In *Sociálna práca*, 2023, roč. 23, s. 21-37.

[36] MAERCKER, A., MEHR, A.: What if victims read a newspaper report about their victimization? A study on the relationship to PTSD symptoms in crime victims. In *European Psychologist*, 2006, roč. 11, č. 2, s. 137-142.

Niektoré obete sa však, paradoxne, rozhodnú využiť pozornosť médií v prospech vlastného záujmu na upozornenie na problém a rýchlejšie vyvodenie následkov. Príkladom je prípad 15-ročného chlapca z obce Parchovany, ktorý v roku 2023 skočil zo strechy základnej školy a spáchal samovraždu. Po prvej vlne informovaní o tragédii sa novinári dostali k rodičom zosnulého Romana. Otec sa odvtedy mnohokrát objavil v rozhovoroch, kde verejne obviňoval vedenie školy z ignorovaniu dlhoročnej šikany. V reportážach prejavoval silné emócie, ktoré dokazuje aj vyjadrenie: „Povedal len toľko, že už to nemá zmysel, že už je to na neho príliš veľa a že už to nedá. A viete, keď vám to povie vlastné dieťa a vy si pochováte svojho jediného syna, to sa nedá vysloviť, čo človek prežíva.“[37] Na základe (nielen) tohto príkladu je možné ilustrovať, že niektoré obete považujú medializáciu za potrebnú, s cieľom napríklad de-tabuizovať nejakú tému či na ňu upriamiť pozornosť zo strany médií a spoločnosti. Záujem zo strany obetí následne výrazne zjednodušuje prácu mediálnych pracovníkov, pričom tento „tlak“ zvykne „testovať“ morálne zásady a rešpektujúci prístup novinárov k obetiam násilia.
Vychádzajúc z obsiahnutých teoretických informácií konštatujeme, že obete násilia sa často bez ich vlastného pričinenia stávajú subjektom médií a ich mediálna reprezentácia neovplyvňuje len ich samotných, ale má dosah aj na verejnú mienku a na samotné vnímanie problematiky násilia v sociálno-kultúrnej realite. Napriek mechanizmom, ktoré Slovensko a ostatné krajiny vytvorili na zabezpečenie ochrany týchto obetí (napr. systém označovania, zákony, kódexy), právo vyjadriť svoj názor a právo na informácie nie je možné odoprieť žiadnemu médiu. Riešením tak zostáva správna komunikácia médií pri prezentácii problematiky násilia, ktorá obete neviktimizuje, násilníka za jeho skutky neospravedlňuje či násilné činy nezjednodušuje, no prináša verejnosti potrebné informácie o dianí vo svete.

4 ZÁVEREČNÉ ZHRNUTIE PROBLEMATIKY

Téma reprezentácie obetí násilia v médiách je dôležitá najmä z dôvodu, že zohráva kľúčovú rolu pri formovaní postojov verejnosti a ovplyvňovaní politických a spoločenských reakcií na násilie. Zvyšovanie citlivosti a porozumeniu voči etickým aspektom je preto nevyhnutnou súčasťou profesionálnej mediálnej produkcie. Z uvedených dôvodov bolo ambíciou tejto štúdie pomocou teoretického výskumu objasniť problematiku mediálnej reprezentácie násilia a jeho obetí. Špecificky sme posudzovali spôsoby, akými sú obete násilia vyobrazené vo vybraných médiách, s odkazom najmä na slovenské mediálne prostredie
Z výsledkov teoretického výskumu sme zistili, že mediálna reprezentácia témy násilia vplýva na obeť násilia najmä po emocionálnej stránke. Na základe teoretických východísk ide najmä o *sekundárnu viktimizáciu* definovanú ako situáciu, keď obeť násilia pociťuje ďalšie psychické zaťaženie zo strany profesionálov, od ktorých očakáva pomoc a podporu. Médiá tento vplyv „zosilňujú“ vtedy, keď šíria nepresné alebo škodlivé informácie o obeti (napr. namiesto poskytovania pomoci a porozumenia obeti „podporujú“ jej ďalšie emocionálne a psychické zaťaženie, čím môžu zhoršiť jej celkový psychický stav). V otázke verejnej mienky je zjavný aj dosah médií (najmä televízneho spravodajstva) na *oslabenie empatie* voči obetiam. Podľa získaných teoretických dát môže byť príčinou skutočnosť, že verejnosť často spochybňuje činy obete cez tzv. *victim blaming* – médiá sa ho niekedy dopúšťajú tým, že spochybňujú obete násilia a posudzujú jej činy, ktoré mohli násilnému skutku predísť alebo ho naopak vyprovokovať. Zdôrazňujeme tiež, že na verejnú mienku vplýva aj *nerešpektovanie prezumpcie neviny*, ktoré môže v očiach verejnosti posilniť predsudky voči obvineným alebo podozrivým (napr. podozriví sú zobrazení bez anonymizácie alebo sú im kladené sugestívne otázky ešte pred vyhlásením rozhodnutia súdu). Tieto praktiky môžu ovplyvniť verejnú mienku a viesť k nespravodlivému posúdeniu situácie. Z hľadiska dosahu

[37] TOČENÁ, A.: *Na šikanu doplatil životom, hovorí otec nebohého Romana, ktorý skočil zo strechy základnej školy.* Zverejnené 23.11.2023. [online]. [2025-09-18]. Dostupné na: <https://www.noviny.sk/krimi/860557-na-sikanu-doplatil-zivotom-hovori-otec-neboheho-romana-ktory-skocil-zo-strechy-zakladnej-skoly>.

mediálnej reprezentácie násilia na spoločnosť je možné sledovať aj ovplyvňovanie *verejnej dôvery v inštitúcie* (napr. médiá poskytujú dostatok priestoru pre vyjadrenia profesionálov, ako sú policajní hovorcovia, prokurátori a záchranné zložky, čo môže posilniť dôveru občanov v bezpečnostné zložky a právne inštitúcie). Paradoxne, zobrazenie násilia v médiách dokáže „prispieť" aj k *stratenému pocitu bezpečia*. Štúdia Kort-Butlera a Habeckera totiž ukazuje, že televízne spravodajstvo je jediným médiom, ktoré spôsobuje intenzívny strach a hnev z kriminality medzi divákmi (napr. televízne reportáže informujú o násilných činoch, ktoré sa diali na bežných miestach a často ich vykonali osoby blízke obetiam, trebárs rodinní príslušníci, susedia, kamaráti, čo mohlo u diváka vyvolať pocit ohrozenia vlastného života a zdravia v každodennom živote).[38] Dôležitým dopadom médiami prezentovaného násilia na jednotlivca, spoločnosť a verejnú mienku je aj *posilňovanie stereotypov*, ktoré zvyknú stigmatizovať rôzne skupiny ľudí. Poukazujeme napríklad na vyobrazovanie násilia na znevýhodnených osobách. Znevýhodnení jednotlivci, predovšetkým deti, totiž bývajú médiami zobrazení ako „bremeno pre spoločnosť", čo následne prispieva k ich stigmatizácií. V podobnom „duchu" je možné identifikovať viaceré rodové stereotypy (napr. ak žena stratí dieťa, mala by plakať) alebo etnické či rasové stereotypy (napr. spomínanie národnosti v spojitosti s obeťou násilia). Všetky zmieňované faktory (a mnohé ďalšie) naznačujú, že médiá majú významný dosah na formovanie verejnej mienky a spoločenských postojov, pričom tento vplyv môže byť ako pozitívny (napr. posilnenie empatie, dôvera v inštitúcie), tak aj negatívny (sekundárna viktimizácia, posilnenie stereotypov, stratený pocit bezpečia).

Na základe získaných teoretických poznatkov formulujeme odporúčania pre mediálnu prax s cieľom prispieť k skultivovaniu spôsobu, akým médiá zobrazujú násilie a jeho obete. V prvom rade by mediálni profesionáli mali klásť dôraz na rešpektujúce a citlivé zobrazovanie obetí, pričom by sa mali vyvarovať „senzáciechtivému prístupu" a tzv. „vystavovaniu ich utrpenia". Dôležité je, aby poskytovali vyvážený pohľad na situáciu, teda aby neprezentovali obete výlučne ako pasívne osoby, ale zároveň ani ako osoby, ktoré si za svoju situáciu môžu samy. Takéto stereotypné rámcovanie totiž môže prispievať k prehlbovaniu spoločenských predsudkov a stigmatizácii. Zároveň je vhodné, aby novinári obetiam umožnili vystupovať aj ako aktívne subjekty, ktoré napriek traumatickej skúsenosti dokážu zaujať postoj a reflektovať svoju situáciu. Dôležité je takisto uvádzať širší kontext násilia, v ktorom sa konkrétny prípad odohral – napríklad upozorniť na systémové zlyhania, prípadne poukázať na potrebu zmeny legislatívy alebo dostupnosti pomoci. Ďalej by sa novinári mali vyhýbať emocionálne zafarbeným výrazom, ktoré môžu recipienta manipulovať alebo vyvolávať v ňom zbytočný strach. Používanie slovných spojení, ako napríklad *krvavý horor* či *brutálny útok*, totiž môže viesť k eskalácii napätia a znižovať kvalitu verejnej diskusie. Rovnako je nevhodné používanie deminutív alebo frazeologizmov, ktoré môžu pôsobiť infantilne a rovnako neprofesionálne. Dôležité je tiež vyvarovať sa stereotypizujúcim jazykovým konštrukciám, ktoré môžu deformovať vnímanie obetí v očiach verejnosti (napr. plač ako predstava ideálnej reakcie traumatizovanej matky). Každý prípad je individuálny a vyžaduje citlivý prístup. Novinári by preto nemali hodnotiť reakcie obetí alebo páchateľov. Okrem toho je nevhodné uvádzať minulé prehrešky obetí, pokiaľ nemajú priamy súvis s daným prípadom, keďže to môže viesť k ich sekundárnej viktimizácii. Novinári by sa mali taktiež snažiť o odbúravanie mýtov, ktoré sa často spájajú s témou násilia (napr. predstava, že násilie sa týka len určitých sociálnych skupín). Z pohľadu etických a právnych noriem je nevyhnutné dôsledne chrániť identitu obetí, najmä ak ide o maloletých. Hoci to môže vyžadovať viac redakčnej práce (napr. pri anonymizácii alebo uvádzaní záberov z diaľky), ide o základný prejav rešpektu voči obetiam násilia. Rovnako je dôležité dôsledne označovať komunikáty jednotným systémom

[38] KORT-BUTLER, L. A., HABECKER, P.: Framing and cultivating the story of crime: The effects of media use, victimization, and social networks on attitudes about crime. In *Criminal Justice Review*, 2018, roč. 43, č. 2, s. 127-146.

označovania, aby divák vopred vedel, čo môže od mediálneho obsahu očakávať. Tieto odporúčania môžu prispieť k zodpovednejšiemu a etickejšiemu spracovaniu tém násilia v médiách a zároveň podporiť verejnú diskusiu, ktorá nebude len reprodukovať predsudky, ale prispeje k porozumeniu problému a podpore obetí násilia.

Poďakovanie

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VÝCHODISKÁ PRE FORMOVANIE CHARAKTERU Z KATECHETICKEJ PERSPEKTÍVY

STARTING POINTS FOR CHARACTER FORMATION FROM A CATECHETICAL PERSPECTIVE

Katarína Russinová

Abstrakt

Cieľom príspevku je predstaviť základné teoretické východiská pre formovanie charakteru detí a mladých ľudí z katechetickej perspektívy. Charakterová výchova, ktorá v sebe zahŕňa výchovu k čnostiam, dostáva nové silné pozície v rámci aktuálne zavádzanej školskej reformy na Slovensku. Preto sa jej nevyhne žiadny pedagóg či katechéta, hoci málokto pozná teoretické východiská tejto koncepcie, akými sú: aspekt histórie, neurovedy, kresťanskej etiky a osobnosť učiteľa. Pastoračno-pedagogická prax ukazuje, aké je dôležité sprevádzať mladých v procese ich ľudského a duchovného zrenia. Príspevok chce zdôrazniť význam systematickej formácie charakteru, bez ktorej zostáva aj náboženské vzdelávanie neúplné a riskuje, že sa zredukuje na informácie bez hlbokého zakorenenia v živote.

Klíčová slova: *charakter, temperament, čnosť, neuroveda, kresťanská etika.*

Abstract

The aim of the contribution is to present the basic theoretical starting points for the formation of the character of children and young people from a catechetical perspective. Character education, which includes the education of virtues, is given a new strong position within the framework of the currently implemented school reform in Slovakia. Therefore, no educator or catechist can avoid it, although few people know the theoretical basis of this concept, such as: the aspect of history, neuroscience, Christian ethics and the personality of the teacher. Pastoral-pedagogical practice shows how important it is to accompany young people in the process of their human and spiritual maturation. The article wants to emphasize the importance of systematic character formation, without which even religious education remains incomplete and risks being reduced to information without deep roots in life.

Key words: *character, temperament, virtue, neuroscience, Christian ethics.*

ÚVOD

V kultúre nadmernej informovanosti, kde sa hodnoty často relativizujú, je potrebné viesť deti a mladých nielen k intelektuálnemu poznaniu, ale aj k múdrosti – k schopnosti správne rozlišovať a konať dobro. Rozvoj charakteru nie je len individuálnym projektom osobnostného rastu. Je odpoveďou na Božie volanie, ktoré zaznieva už od počiatku – keď Boh človeka stvoril „na svoj obraz“ (Gn 1,27), pozval ho do vzťahu a zveril mu zodpovednosť za svet i za druhých. Mať pevný charakter znamená prevziať tento životný postoj.

V prvej časti príspevku chceme objasniť pojem charakter a formovanie charakteru. Ďalej rozoberáme historický pohľad na výchovu charakteru v spoločnosti i v dejinách školstva. Krátko sa venujeme aj biologicko-neurologickej podstate formovania charakteru. Tá nám pomáha lepšie uchopiť mechanizmy, ktoré v človeku podporujú chcenú morálnu odozvu. Ďalej vysvetľujeme, akú úlohu zohráva učiteľ pri formovaní charakteru mladých ľudí.

V závere príspevku uvádzame teologický podklad pre formovanie charakteru a rôzne prístupy kresťanskej etiky. Pri spracovaní príspevku využívame dostupnú odbornú literatúru i praktické skúsenosti nadobudnuté prácou s mládežou. Metodologicky vychádzame z kvalitatívneho výskumu, ktorý zahŕňa analýzu textov a ich následnú syntézu, rovnako aj komparáciu sekulárnych a kresťanských prístupov k formácii charakteru a k výchove k hodnotám.

1 VYMEDZENIE POJMU CHARAKTER VERZUS TEMPERAMENT

„Dnešný zbabelec je dieťa, ktorému sme sa včera posmievali. Dnešný tyran je dieťa, ktoré sme včera bičovali. Dnešný podvodník je dieťa, ktorému sme včera neverili. Dnešný rebel je dieťa, ktoré sme včera utláčali. Dnešný nezakomplexovaný človek je dieťa, ktoré sme včera povzbudzovali. Dnešný dobyvateľ je dieťa, ktoré sme včera nezanedbávali. Dnešný spravodlivý človek je dieťa, ktorému sme včera nenadávali. Dnešný veľkorysý človek je dieťa, ktorému sme včera odpúšťali. Človek, ktorý vyžaruje lásku a krásu je dieťa, ktoré včera žilo v radosti." (Nanni, 2008). Tento výrok načrtáva dôležitosť charakterovej výchovy už v rannom detstve. V dnešnej dobe nachádzame vhodný čas na znovuobjavenie tejto tematiky a hľadanie vhodných princípov pre využitie v školskej i katechetickej praxi.

Pojem charakter patrí medzi často používané, no nie vždy správne pochopené termíny. V bežnom jazyku sa používa na označenie povahových vlastností človeka, jeho správania či morálnych postojov. Otázkou však zostáva, v čom sa líši od iných pojmov, ako sú povaha či temperament, s ktorými býva charakter často zamieňaný. Korene pojmu charakter siahajú už do antickej filozofie. Aristoteles vo svojom diele Etika Eudémova opisuje charakter ako „duševný stav nastavenia, ktorý určuje, akým spôsobom sa človek správa v rôznych situáciách" Aristoteles ďalej upozorňuje, že povaha a charakter nie sú totožné pojmy. Povahu chápal ako prirodzený základ osobnosti, ktorý je človeku daný už narodením a prejavuje sa najmä v jeho spontánnych reakciách. Charakter však podľa neho vzniká postupne – formuje sa tým, ako človek žije, aké návyky si vytvára a aké morálne voľby opakovane robí. Charakter teda predstavuje výsledok vedomého kultivovania dobra v človeku. (Aristoteles, 2020).

Z psychologického hľadiska sa pojem charakter chápe ako „eticky zhodnotenú osobnosť, prejavujúcu sa vo vzťahoch najmä k ľuďom, k práci, k sebe samému, k životu, k prekážkam a k prírode". Tieto prejavy sú ovplyvnené hodnotami, ktoré sú súčasťou charakteru človeka. Charakter sa nebuduje nadobúdaním poznatkov, ale konštituuje sa činmi. Vzniká predovšetkým výchovou, keďže sa utvára prostredníctvom postupného osvojovania si stabilných návykov ako reagovať na rôzne situácie. Tieto návyky ovplyvňujú aké hodnoty, postoje a spôsoby správania jednotlivec uprednostňuje v každodennom živote. Charakter predstavuje širší a komplexnejší pohľad na osobnosť, ktorý zahŕňa viac než len jej vedomú zložku „*ja*" (Hartl, Hartlová, 2000). Na druhej strane platí, že na formovaní charakteru sa podieľajú aj ďalšie temperament a povaha. Každý z týchto pojmov označuje inú úroveň osobnostnej výbavy. Temperament určuje tempo, intenzitu a stálosť prežívania a správania. Predstavuje vrodené rozdiely v sile základných pudov a emócií, ako sú strach, hnev, znechutenie či prekvapenie. Okrem toho sa temperament prejavuje prostredníctvom úrovne aktivity a pozornosti jedinca. Tieto reakcie zostávajú počas života pomerne stabilné. Naopak, charakter sa formuje postupne a odráža individuálne rozdiely v cieľoch a hodnotách človeka, ktoré sa rozvíjajú skúsenosťami a dozrievaním v priebehu života (Cloninger, 2011). Na rozdiel od charakteru, ktorý je výsledkom výchovy a morálneho formovania, temperament vyjadruje prirodzené dispozície človeka, na ktorých sa následne stavia rozvoj osobnosti.

2 POTREBA FORMOVANIA CHARAKTERU

V spoločenských a behaviorálnych vedách sa charakter často chápe ako špecifická časť osobnosti, ktorá je priamo spojená s morálnymi normami a hodnotami. Predstavuje súbor dispozícií, ktoré ovplyvňujú konanie jednotlivca v zmysle dobra či zla, a je teda morálne hodnotiteľný. V pedagogickom a filozofickom diskurze sa charakter najčastejšie definuje ako súbor vlastností, ktoré sa dajú cieľavedome rozvíjať a zdokonaľovať. Tieto vlastnosti nie sú človeku nevyhnutne vrodené, ale sa formujú prostredníctvom výchovného vzoru a osobného rozhodnutia. Človek vďaka nim dokáže reagovať racionálne a vedome ich pretavovať do konania, ktoré možno morálne posudzovať.

Ministerstvo školstva, vedy, výskumu a športu Slovenskej republiky vo svojich vzdelávacích štandardoch definuje charakter ako „súbor osobnostných morálnych čŕt alebo dispozícií, ktoré riadia správanie človeka, ovplyvňujú jeho motiváciu a vyvolávajú špecifické morálne city". Prejavom dobrého charakteru má byť nielen individuálne šťastie a naplnenie, ale aj príspevok k spravodlivej a solidárnej spoločnosti. Formovanie charakteru je preto chápané ako integrálna súčasť výchovno-vzdelávacieho procesu – nielen v obsahu vyučovacích predmetov, ale aj v celkovej kultúre školy, jej atmosfére a medziľudských vzťahoch. Z pohľadu kresťanskej antropológie má formovanie charakteru hlboký duchovný rozmer. Čnosti, ktoré predstavujú najvyšší stupeň charakterových vlastností, sú zároveň odpoveďou človeka na Božie volanie k svätosti. Katechizmus Katolíckej cirkvi definuje čnosť ako trvalú dispozíciu konať dobro. Človek je povolaný rozvíjať prirodzené i nadprirodzené čnosti ako prostriedky k zjednoteniu svojej vôle s Božou vôľou. (KKC, 1992) Charakterové vlastnosti teda možno vnímať ako morálne formované osobnostné črty, ktoré vedú k stabilnému a konzistentnému spôsobu života podľa zásad dobra. Tie vlastnosti, ktoré sú natoľko usporiadané a posilnené, že vedú k opakovanému a zámernému dobru, sa nazývajú čnosti. Preto sú práve čnosti cieľom charakterovej výchovy a duchovnej formácie. Teologická formácia sa zameriava na to, aby vnútorný svet človeka – jeho myslenie, cítenie i vôľa – boli pretvárané v súlade s Božou pravdou a láskou, čím človek dozrieva nielen v morálnom, ale aj v duchovnom zmysle (Arthur, 2016).

Pokiaľ ide o formovanie charakteru, musíme si uvedomiť vážny etický deficit prítomný v spoločnosti, ktorý sa tak stáva výzvou k systematickému pedagogickému formovaniu morálneho vedomia naprieč všetkými vyučovacími predmetmi. Tento nedostatok kladie pred pedagógov a vychovávateľov zásadné otázky: Akým spôsobom možno charakter rozvíjať? Aké hodnoty a postoje by mali byť deťom sprostredkované? Čo je konečným cieľom charakterovej formácie? A ako možno rozpoznať človeka so sformovaným charakterom? (Hábl, 2020) Dedičstvo J. A. Komenského nám zdôrazňuje, že z antropologickej prirodzenosti človeka vyplýva trojaký cieľ jeho formácie – múdrosť, mravnosť a zbožnosť. Tieto dimenzie tvoria integrálnu súčasť celostného rozvoja osoby. V oblasti mravnej výchovy Komenský odporúča zamerať sa predovšetkým na rozvíjanie čností, ktoré tvoria základný rámec etického konania človeka. Formovanie čností má začínať už v ranom detstve, a to prostredníctvom konkrétneho príkladu dospelých, múdreho vedenia, jasných pravidiel a ochrany pred morálne škodlivými vplyvmi prostredia. Táto výchova má byť nielen intelektuálna, ale aj praktická, zakorenená v každodennom živote a podporená orientáciou na duchovnú oblasť (Komenský, 1948).

Pri pohľade na spektrum dostupných poznatkov o charaktere z rôznych humanitných vied, vidíme niektoré styčné body: Charakter sa dá vychovávať a jeho progres sa dá merať holisticky. Charakter je dôležitým prispievateľom k individuálnemu i sociálnemu rozvoju. Charakter sa formuje cez pozorovanie vzorov. Pevný charakter produkuje dobré akademické výsledky, ako napríklad dobré známky, ako vedľajší produkt. Pevný morálny charakter posilňuje osobnosť študentov a podporuje demokratické občianstvo. (Arthur, 2016).

3 POHĽAD NA HISTÓRIU VÝCHOVY CHARAKTERU

Jeden z prvých pohľadov na formovanie charakteru pochádza z obdobia staroveku. Napriek tejto historickej vzdialenosti možno nájsť paralely medzi výzvami vtedajšej gréckej spoločnosti a výzvami, ktorým čelí súčasný človek. Aristotelov koncept formovania charakteru je postavený na presvedčení, že najvyšším dobrom človeka je rozvoj jeho ľudskosti – teda naplnenie jeho prirodzenej podstaty skrze rozumný a čnostný život. Podľa Aristotela je ľudské konanie morálne správne vtedy, keď smeruje k tomuto cieľu – k eudaimonii, čiže k naplnenému a rozumnému životu. Takýto život nie je možný bez kultivácie čností, bez stabilného a podporného sociálneho prostredia, ktoré zahŕňa rodinu, priateľov, zdravie, základné materiálne zabezpečenie, vzdelanie a spravodlivé politické usporiadanie spoločnosti. Formovanie charakteru je preto nielen osobnou, ale aj spoločenskou úlohou (Aristoteles, 2020).

Aristotelove úvahy poskytli námety pre pojednania stredovekých kresťanských mysliteľov. T. Akvinský im venuje široký priestor vo svojom najslávnejšom diele Summa Theologiae. Preberá Aristotelove poznatky a rozvíja ich v teologickom kontexte. Rozlišuje medzi dvoma dimenziami dobra človeka: dobrom človeka ako jednotlivca a dobrom človeka ako člena občianskeho spoločenstva. Prvé sa týka duchovného a mravného zdokonaľovania osoby – jej rozumu, ktorý smeruje k poznaniu pravdy, a jej vášní, ktoré majú byť podriadené vedeniu rozumu. Druhé sa vzťahuje na schopnosť človeka konať v prospech spoločného dobra – teda konať tak, aby jeho činy zohľadňovali blaho celého spoločenstva (Blaščíková, 2019).

V priebehu 19. storočia sa medzi mysliteľmi čoraz viac objavovalo presvedčenie, že morálne ciele výchovy majú nadradené postavenie voči cieľom intelektuálnym. Tento pohľad nachádzal podporu najmä medzi zástancami tzv. charakterovej výchovy, ktorí zdôrazňovali, že vzdelanie má byť prostriedkom nielen k rozvoju poznania, ale predovšetkým k formovaniu dobrého, čnostného človeka. Jedným z výrazných predstaviteľov tohto prúdu bol J. Barclay, ktorý tvrdil, že učitelia by mali byť vyberaní nielen na základe odborných schopností, ale predovšetkým na základe silného morálneho charakteru, ktorý by mohol slúžiť ako vzor pre žiakov. Barclay bol súčasťou širšieho intelektuálneho hnutia známeho ako Škótske osvietenstvo, ktoré spájalo filozofiu, morálku a výchovu do jednej celistvej vízie ľudského rozvoja. F. Hutcheson, ďalší významný predstaviteľ tohto smeru, presadzoval potrebu hlbšieho štúdia ľudského charakteru ako základ pre pochopenie morálnej filozofie. Učil, že človek je schopný morálneho rozlišovania vďaka prirodzenému morálnemu cíteniu, ktoré je mu vlastné už od narodenia. Táto pozitívna antropológia vytvárala podmienky pre výchovu, zameranú na rozvíjanie čností prostredníctvom príkladu a vnútorného presvedčenia. Podobný dôraz na formovanie charakteru nachádzame aj u J. Locka, ktorý tvrdil, že samotné intelektuálne schopnosti nie sú zárukou dobrej spoločnosti. Výchovný ideál chápal ako poznanie spojené s pestovaním sebadisciplíny, rozvážnosti a čnostného života. Na druhej strane H. More zastáva pesimistickejší pohľad na ľudskú prirodzenosť. More tvrdila, že deti sa rodia so skazenou prirodzenosťou, ktorú je potrebné „napraviť". Výchova mala podľa nej plniť najmä disciplinárnu funkciu. Tieto rozdielne pohľady nám zobrazujú napätie medzi dvoma výchovnými postojmi: jeden sa opiera o dôveru v schopnosť človeka rozvíjať sa k dobru cez slobodu a príklad, druhý vychádza zo skepsy voči ľudskej prirodzenosti a volí cestu externého donucovania a regulácie. V teologickom kontexte tieto prístupy korešpondujú s odlišným chápaním antropológie – buď ako otvorenej pre milosť a rast v čnosti, alebo ako bytostne porušenej a potrebujúcej prísnu korekciu

Pod vplyvom liberálneho protestantizmu na konci 19. storočia došlo k výraznému posunu v chápaní výchovy charakteru. Táto sa postupne začala redukovať na čisto morálnu výchovu, pričom kresťanské náboženské prvky, boli zámerne potláčané alebo úplne vylučované. Morálnosť sa začala vnímať ako autonómna doména, nezávislá od náboženského základu, čo otvorilo priestor pre vznik rôznych sekulárnych iniciatív usilujúcich sa o formovanie charakteru mimo religiozity človeka a mimo náboženskej výchovy. V roku 1886 bola v Spojených štátoch založená Etická únia (Ethical Union), združenie agnostikov, ktorého cieľom bolo vytvoriť ideologický rámec pre sekulárne chápanie morálnosti. Táto organizácia neskôr iniciovala vznik Ligy morálnych zásad (League for Moral Principles), ktorá sa otvorene profilovala ako odporca kresťanského vplyvu v školstve. Usilovala sa presadzovať tzv. „morálnu reformu" spoločnosti prostredníctvom legislatívnych opatrení, ktoré mali nahradiť kresťanskú etiku univerzálne platnými sekulárnymi hodnotami. Ich prístupy možno považovať za pokusy o moralizmus bez Boha. Išlo o snahu pestovať čnosti bez ich ukotvenia v Božej milosti a v pravde, ktoré pramenia z Božieho zjavenia. V konečnom dôsledku takáto výchova riskuje, že sa stane formou morálnej povrchnosti, ktorá síce vonkajškovo udržiava istý etický poriadok, ale nenapomáha skutočnej premene srdca. (Atrhur, 2003).

Po roku 1960 sa psychológia stala dominantnou disciplínou v oblasti morálnej a charakterovej výchovy. Postupne sa do popredia dostali aj filozofické, sociologické a teologické prístupy, avšak boli často zatlačené do úzadia. Progresívne pedagogické smery kládli dôraz na individuálne práva a potreby dieťaťa, čím sa formovanie charakteru posúvalo do rámca inkluzívnosti a morálnej neutrality. Hoci niektorí myslitelia ako Gilbert Ryle poukazovali na možnosť výchovy k čnostiam, takéto hlasy boli skôr výnimkou (Mlynarčík, 2013)

Od 90. rokov 20. storočia však badať obnovený záujem o čnosti ako kľúčový nástroj formácie charakteru. Táto snaha sa dnes odzrkadľuje aj v rôznych mimoškolských aktivitách, ktoré podporujú osobnostný rast mladých. Príkladom je program DofE – Cena Vojvodu z Edinburghu, do ktorého sa zapájajú aj slovenské deti a mládež. Cez zážitkové aktivity ako turistika, horolezectvo či dobrovoľníctvo sa účastníci učia zodpovednosti, vytrvalosti a službe druhým (Brestovanský, 2022).

3 NEUROVEDA O FORMOVANÍ CHARAKTERU

Neurovedu chápeme medziodborovú vednú oblasť, ktorá komplexne skúma stavbu, funkcie a mechanizmy nervovej sústavy a mozgu na viacerých úrovniach, pričom sa opiera aj o štúdium správania, vnímania, pamäti a učenia. Ak sa môžeme zamýšľať nad formovaním charakteru z pohľadu neurovedy, môžeme si klásť otázku: Je morálny život jednotlivca založený výlučne na vedomom dodržiavaní morálnych princípov? Hoci sa môže zdať, že morálna integrita závisí od individuálneho rozhodovania na základe racionálnych pravidiel, moderný výskum v oblasti neurovied a psychológie ukazuje, že realita je komplexnejšia. Človek neprichádza na svet ako čisté plátno, ktoré sa následne zapĺňa logickou štruktúrou morálneho myslenia. Naopak, ukazuje sa, že morálne správanie je výsledkom dynamického prepojenia biologických, psychologických a sociálnych faktorov, ktoré ovplyvňujú naše rozhodovanie často pod prahom vedomej kontroly. Skúsenosť je síce kľúčová pre morálny rast, avšak samotná logika a vedomé hodnotenie situácií nepredstavujú jediný základ morálneho konania. Veľká časť nášho každodenného rozhodovania je riadená automatizovanými vzorcami správania, ktoré sú výsledkom učenia – niekedy vedomého, často však nevedomého. Tieto vzorce vytvárajú v našom vnútri akési siete asociácií a dispozícií, ktoré nám pomáhajú rýchlo a intuitívne reagovať na rôzne situácie. Tieto morálne dispozície možno chápať ako hlboko zakorenené sklony alebo tendencie konať určitým spôsobom. Predstavujú integrovaný rámec, v ktorom sa spája biologická výbava človeka s jeho osobnou históriou a spoločenským kontextom. Dispozície nie sú nemenné – sú formovateľné výchovou, skúsenosťou, napodobňovaním príkladov a cieleným rozvíjaním cností. Sú ako tiché oporné trámy morálneho života, ktoré nesú naše hodnotové rozhodnutia aj v situáciách, keď si ich plne neuvedomujeme (Peterson, 2017).

Na biologickej úrovni učenie prebieha prostredníctvom troch základných mechanizmov: vytvárania nových spojení medzi doposiaľ neprepojenými neurónmi, posilňovania alebo oslabovania už existujúcich spojení a procesom neurogenézy, teda vzniku nových neurónov.

Tento jav označujeme ako neuroplasticitu – schopnosť mozgu meniť sa v reakcii na nové skúsenosti a podnety. Neuroveda nám týmto spôsobom umožňuje rozšíriť chápanie morálnych dispozícií: podobne ako naše myslenie, aj morálne postoje a konanie sa vyvíjajú v konkrétnom prostredí, na ktoré jednotlivec aktívne reaguje. Každá dispozícia, teda naučený sklon konať určitým spôsobom, interpretuje naše skúsenosti cez vlastný „filter" morálnych hodnôt. Tieto hodnoty určujú, čo v danom momente považujeme za dobré či vhodné. V tomto procese hrá kľúčovú úlohu aktivácia motivácie (čo znamená správne túžby), naša schopnosť vnímať dostupné možnosti a správne ich vyhodnotiť (t. j. rozlíšiť správny dôvod), ako aj následná činnosť, ktorá z týchto možností vyplýva (konkrétne rozhodnutie a konanie). Okrem toho mozog má aj ďalšie systémy, ktoré významne ovplyvňujú naše morálne vnímanie a správanie. Ide o obranné mechanizmy (napr. reakcie na ohrozenie), sociálne mechanizmy (napr. empatia, vzťahy, pripútanie) a schopnosť predstavivosti. Tieto tri zložky vytvárajú akýsi „trojuholník" vnímania sveta a výrazne prispievajú k formovaniu nášho charakteru. Hoci sa im z dôvodu rozsahu tohto príspevku nebudeme venovať detailne, ich vplyv nemožno prehliadnuť. Pre naše uvažovanie je rozhodujúci poznatok, že najadekvátnejšia, teda najzrelejšia a najpravdivejšia morálna odpoveď vzniká vtedy, keď sú obranné mechanizmy pod kontrolou, sociálne prepojenie je aktívne a predstavivosť je zapojená. Práve za takýchto okolností má človek najlepšie predpoklady vidieť realitu pravdivo, správne ju posúdiť a konať v súlade s dobrom (Peterson, 2017).

4 ÚLOHA UČITEĽA PRI FORMOVANÍ CHARAKTERU

Na základe doterajších poznatkov o charaktere sa v nasledujúcej časti pokúsime hľadať praktické uplatnenie tejto témy v kontexte učiteľského povolania. Ak totiž súhlasíme s tvrdením, že vzdelanie má človeka pripravovať na život, prirodzene si musíme položiť otázku: čo je skutočným cieľom ľudského života? Cieľom vzdelávania nemá byť len odovzdávanie poznatkov, ale predovšetkým pomoc človeku stať sa plnšie tým, kým je: človekom v najhlbšom a najpravdivejšom zmysle slova. Učitelia by si preto mali uvedomovať, aký druh formácie sprostredkúvajú svojim žiakom, pretože každé vyučovanie, aj to zdanlivo neutrálne, je praktickým vyjadrením určitých filozofických a antropologických predpokladov. Škola ako inštitúcia predstavuje štruktúrovaný a zámerný priestor, v ktorom sa človek formuje a usmerňuje k určitým cieľom. Tomáš Akvinský definuje vzdelávanie ako proces, v ktorom sú ľudské bytosti formované a vedené k svojmu naplneniu – k uskutočneniu svojho cieľa. Charakterové kvality majú prednosť pred ostatnými schopnosťami, pretože sú nosným pilierom každej činnosti. Kresťanská formácia charakteru neznamená uniformitu či donucovanie k určitému typu správania, ale skôr sprevádzanie jednotlivca na ceste rastu smerom k obrazu Boha, ktorý je prítomný v každom človeku (Arthur, 2021).

V súčasnosti často sledujeme trend zefektívňovania vzdelávania prostredníctvom rôznych štandardov, testovania, merateľných kompetencií a inšpekčných mechanizmov. Aj keď ide o nástroje, ktoré môžu prispieť k objektívnemu hodnoteniu, často dochádza k zámene: kvantifikovateľné výstupy sú kladené nad múdrosť, pochopenie a vnútorné formovanie. Na otázky zmyslu, cieľa, významu a hĺbky sa kladie menší dôraz. Učiteľ je často redukovaný na nositeľa funkcií s vopred stanovenými úlohami a očakávanými výsledkami, zatiaľ čo jeho osobnosť, charakter a schopnosť inšpirovať žiakov sa dostávajú do úzadia. Zo skúsenosti však vieme, že vzdelávanie nemôže byť hodnotovo neutrálne. Každý žiak potrebuje osobný príklad – človeka, ktorý ho neformuje iba vedomosťami, ale celou svojou osobnosťou. Niekoho, kto ho skutočne vníma a komu na ňom záleží. V tomto svetle sa učiteľské povolanie nemá vnímať iba ako profesia, ale ako povolanie, ktoré má hlboký etický a duchovný rozmer (Arthur, 2016).

Deti si osvojujú hodnoty ako úprimnosť, rešpekt či citlivosť voči druhým predovšetkým prostredníctvom vzťahov, ktoré nadväzujú s autoritami, ktorým dôverujú a ktoré obdivujú.

Veľký vplyv preto zohrávajú učitelia, ktorých osobnostné kvality sú pre žiakov hodné nasledovania. Medzi takéto vlastnosti patrí spravodlivosť, rozumnosť, pevnosť, trpezlivosť, tolerancia, ale aj ochota vysvetľovať a načúvať. U starších žiakov sa obzvlášť cení rešpektujúci prístup, sloboda od predsudkov, jemnosť, slušnosť a vnímavosť voči individuálnym potrebám. Vzhľadom na túto formujúcu úlohu je na učiteľa kladený vysoký nárok – nielen v oblasti odborných kompetencií, ale najmä v oblasti jeho morálneho charakteru (Brestovanský, 2022). Proces učenia je zároveň previazaný s množstvom zdieľaných návykov, hodnotových rámcov, tradícií a spôsobov uvažovania, ktoré učitelia sformovali na základe skúseností, často neformulovaných, ale o to silnejšie prítomných v ich pedagogickej praxi. Myslíme tým, napríklad intuíciu učiteľa, teda jeho schopnosť reagovať nie len na základe naučených pravidiel, ale z vnútornej múdrosti, ktorá pramení z dlhodobej interakcie s realitou výchovno-vzdelávacieho procesu. Redukovanie výučby na súbor konkrétnych kompetencií nedokáže zachytiť hĺbku a komplexnosť učiteľského povolania. Skutočne dobrý učiteľ je ten, kto dokáže rozšíriť horizont myslenia žiakov, kto ich vedie k reflexii, podporuje sebahodnotenie a vytvára priestor pre praktizovanie morálnych kvalít. Mnohí učitelia disponujú morálnou víziou, zmyslom pre dobro a vnútornou motiváciou formovať nielen myseľ, ale aj charakter. To neznamená, že sú morálne bezchybní. Znamená to, že sú ochotní vyučovať z toho, kým sú – so svojimi silnými stránkami i slabosťami – a tak viesť deti k objaveniu vlastného vnútorného učiteľa (Arthur, 2016).

5 CHARAKTER A KRESŤANSKÁ ETIKA

Učiteľ náboženstva vo svojej pedagogickej praxi prirodzene integruje aj teologický rozmer formovania charakteru. Teológia, ako štúdium Božej prirodzenosti, neostáva len pri abstraktných konceptoch, ale zahŕňa aj reflexiu ľudského správania vo vzťahu k Bohu. Preto ak má byť formovanie charakteru skutočne kresťanské, musí mať pevný teologický základ. Budovanie charakteru bez teologickej opory môže byť síce praktickejšie a jednoduchšie, no zároveň hrozí, že stratí orientáciu a hlbší zmysel. Bez „mapy“ poskytnutej vierou sa človek ľahko ocitne v spleti subjektívnych interpretácií dobra a hodnotového relativizmu. Morálna teológia, alebo teologická etika, skúma, ako viera formuje každodenné konanie kresťana. Oproti nej morálna filozofia (filozofická etika) ponúka reflexiu morálneho konania bez priameho odkazu na vieru. Ak však chýba teologické ukotvenie, výchovno-vzdelávací proces ľahko sklzne k zúženému humanizmu alebo naopak k sektárskemu prístupu, ktorý vylučuje rozumové poznanie (Arthur, 2021).

Kresťanské formovanie charakteru by nemalo byť chápané ako jednostranné odovzdávanie morálnych pravidiel. Skôr ide o sprevádzanie žiaka na jeho ceste hľadania životného zmyslu a cieľa – prostredníctvom budovania autentického vzťahu s transcendentným Bohom. Takéto formovanie presahuje rámec čisto kultúrnej výmeny. Vďaka teologickému rozmeru sa otvára priestor pre poznanie, ktoré siaha nad rámec ľudskej skúsenosti a kultúry. Cieľom nie je vytvárať z detí len „dobrých občanov“, ale pomáhať im objaviť ich identitu ako bytostí stvorených na obraz Boží, so všetkou dôstojnosťou a zodpovednosťou, ktorú toto poznanie prináša (Podzimek, 2022).

Cieľom kresťanského formovania charakteru nie je len vytvorenie morálne fungujúceho jednotlivca, ale umožnenie plnohodnotného kresťanského života. Nejde len o konanie na základe pravidiel a noriem, ale predovšetkým o životný štýl zakorenený vo vzťahu poznania a lásky k Bohu. Takýto vzťah je možný výhradne skrze osobu Ježiša Krista, v ktorom sa človeku otvára prístup k plnému obrazu Boha i človeka. V kontexte dnešnej sekulárnej kultúry môže byť oslabená predstava, že viera v Boha je zásadná pre rozvoj hlbokého morálneho charakteru. Kresťanská teológia však prináša pohľad, podľa ktorého skutočná morálna formácia nie je oddeliteľná od duchovnej dimenzie človeka. Charakterová etika ponúka rámec, v ktorom sa morálne cnosti chápu ako prostriedky na dosiahnutie vyššieho cieľa. Tým cieľom je pre kresťana jednota s Bohom. Práve tento cieľ dáva kresťanskej etike hlbokú koherenciu a význam. Nie je to len o správnom správaní, ale o transformácii osoby, ktorá sa postupne stáva viac podobnou Kristovi (Peschke, 2004). Kresťanská etika vyprodukovala niekoľko rôznych (navzájom prepojených) prístupov, ktoré v práci spomenieme. Prvým je prístup biblickej etiky, ktorá hľadí na Bibliu pred a nad všetky ostatné autority, a aplikuje jej učenie do súčasných morálnych situácií. Druhým je prístup etiky božského príkazu. Tu sa jedná o prístup ktorý zastáva to, o čom Boh prikazuje, že je správne. Na druhej strane zakazuje čokoľvek, čo Boh zakazuje. Kritériom dobra a zla teda je poslušnosť Božím príkazom. Tretím je prístup agapistickej etiky, ktorá za centrálnu tému v etike považuje biblický príkaz milovať Boha a blížneho. Štvrtým je prístup cnostnej etiky, ktorá do centra svojho učenia vkladá praktizovanie cností a ich vštepovanie do vnútra kresťanskej komunity. V tomto prístupe ide skôr o stávaní sa určitým typom človeka ako objavovanie správnej činnosti či pravidla v danej situácií, keďže charakter je formovaný aj rozpoznaný v skutku. Posledný prístup, ktorý spomenieme, je prístup etiky prirodzeného zákona, ktorá zastáva názor, že niektoré morálne princípy sú vo všetkých ľudských bytostiach na základe spôsobu, akým boli stvorení na Boží obraz. Preto reflexia ľudskej prirodzenosti ponúka obsah či princípy pre ľudskú morálku bez ohľadu na náboženstvo či kultúru. Toto poznanie je dostupné pre všetkých ľudí (Arthur, 2021).

ZÁVER

„Nepripodobňujte sa tomuto svetu, ale premeňte sa obnovením zmýšľania, aby ste vedeli rozpoznať, čo je Božia vôľa: čo je dobré, milé a dokonalé“ (Rim 12,2). Apoštol Pavol v týchto slovách vyzýva kresťanov k vnútornej premene, ktorá sa začína v mysli a má dopad na celý spôsob života a praktické konanie človeka. V tomto duchu vnímame formovanie charakteru mladého človeka ako jednu z najzásadnejších úloh dnešnej doby. Pohľad na históriu a na súčasnosť ukazuje nutnosť obnovy morálky v spoločnosti. Aby sa tak stalo, musí byť morálka podaná a aplikovaná v plnosti svojho obsahu, svetla a sily. Iba tak bude schopná odpovedať na otázky o lepšom živote. Príspevkom sme chceli poukázať na to, že k obnove morálky patrí vytrvalá práca na formovaní charakteru. Človek je vo svojej podstate morálnou bytosťou ale musí sa naučiť rozlišovať dobro a zlo. Táto náročná výchovná úloha dnes padá aj na plecia učiteľov a katechétov. Príspevok túto úlohu zdôvodňuje a predstavuje jej teoretické základy.

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COMBINING PAID WORK AND INFORMAL CARE FOR OLDER ADULTS: A REVIEW OF STRATEGIES USED BY WORKING INFORMAL CAREGIVERS

Erik Šatara

Abstract

Population ageing and related demographic and social changes are placing increasing pressure on working informal caregivers. Combining work and informal care is thus becoming a challenge not only for individuals and families, but also for social policy in Europe. The aim of this review study is to examine the strategies used by working informal caregivers to balance work and informal care for older people (aged 64 and over). We conducted a narrative review, analysing seven empirical studies retrieved from the Web of Science database. We identified three main categories of strategies for combining work and informal care, namely: workplace-level strategies (flexible forms of employment, leave of absence, and others), adjustments to working hours, and changes in career trajectory. The findings indicate that the choice of these strategies is closely linked to the intensity and duration of informal care provided to an older person. A limitation of the selected studies is their limited consideration of the availability of formal services (e.g., social services) and the involvement of family or community members in providing care for older adults.

Keywords: *informal care, work, older adults, ageing population, flexible forms of employment*

1 INFORMAL CARE FOR OLDER PEOPLE IN THE CONTEXT OF SOCIAL CHANGE

Over the last two decades, European countries have seen significant changes in the ageing of their populations. The proportion of the population aged 65 and over at the European Union level has increased from 16.4% to 21.6% (Eurostat, 2025). According to Eurostat predictions (2024), older people aged 60 and over will make up 25% of Europe's population in 2030. In Slovakia, older people aged 65 and over accounted for 18.8% of the population in 20241 (Haasová, Orgoňová, 2025). It is important to emphasize that virtually all population development forecasts in Slovakia point to a further continuous increase in average life expectancy and an increase in the number of older people in the population (Bleha et al., 2018; Šprocha et al., 2024; Kaščáková et al., 2025).

These trends point to the accelerating ageing of the population and the need to address the socio-political challenges that this process brings (e.g., Lichner et al., 2023), particularly in the context of social security, health, and social care systems (e.g., Koutsogeorgopoulou, Morgavi, 2025). Countries that are and will be confronted with a growing elderly population should consider measures aimed at supporting health and social care systems, promoting lifelong learning, and ensuring the sustainability of social protection systems (United Nations, 2025; Labbas, Stanfors, 2025). Forden (2025) points out that, given the growing demand for care for older people in countries with a growing older population, it is crucial that policymakers consider the implications of policies that rely increasingly on informal care provided by individuals or families. This trend can also be seen in the Slovak context, where in recent years there has been a growing focus on the policy of "ageing in place" (e.g., Long-Term Care Strategy in the Slovak Republic, 2021; Strategy for Deinstitutionalization of Social Services, 2021).

One area affected by these demographic and political changes is the provision of care for older people in the home environment, where informal care plays a key role (Abed et al., 2025). With the ageing of the population, more people of working age across Europe are facing the competing demands of paid work and caring for older relatives (Koreshi, Alpass, 2022; Labbas, Stanfors, 2025). At the same time, it can be observed that the growing need for care for dependent persons in Europe is shifting towards home-based, informal care, which means that informal caregivers will play an increasingly important role in providing care for older people in the future. This development also opens space for discussion on the status, profile, and conditions of informal caregivers in the coming years (Abed et al., 2025). Abed et al. (2025) also point out the important fact that there is currently no uniform definition of informal caregivers in Europe. Most often, family members (children, grandchildren, partners) find themselves in this position, but also close people such as relatives, friends, or neighbours who provide unpaid care to older people. Informal caregivers are considered one of the most important sources of social support for older people with serious health problems or health disadvantages (Riffin et al., 2017; Feinberg, 2019). This has also been confirmed during the COVID-19 pandemic (e.g., Heintz et al., 2021; Elomäki, 2025).

Slovakia is one of the countries of Eastern Europe (e.g., Hyryavets, 2025). Labbas and Stanfors (2025) point out that countries in Southern and Eastern Europe are among those where informal care has a more significant impact on the working conditions and employment opportunities of informal caregivers than in the Nordic countries. Providing informal care entails several costs, which are often indirect and borne by the informal caregivers themselves. At the same time, they must ask themselves whether taking on this responsibility will allow them to remain in the labour market (Forden, 2025). Combining work and informal care is particularly challenging for older workers, who often face multiple concurrent circumstances, such as health problems, barriers in the workplace, and increasing care demands, which can negatively affect their ability to manage both roles simultaneously (Clancy et al., 2020).

As mentioned above, informal care for older people can be seen as a form of unpaid work, similar to domestic work or childcare, where there may also be a conflict between work and care (Labbas, Stanfors, 2025). Caring for an ageing family member with serious health problems or disabilities can be extremely stressful for people who are also economically active, especially if their needs are not sufficiently met by existing social policy instruments (Feinberg, 2019). Many of them also face working conditions that do not meet their needs, which can lead to a conflict between the working and family life of informal caregivers. In response to these challenges, several governments are creating labour market flexibility support systems to enable informal caregivers to better manage their work, caregiving, and family responsibilities (Korehsi, Alpass, 2023a). The Slovak Republic is no exception in this regard, with measures resulting from the *Concept of Social Services Financing Reform* (2024), which highlights the current lack of support for informal care.

1.1 Strategies for combining work and informal care for older people in the home environment

Providing informal care means taking on a new role, significantly reducing the time and resources that informal caregivers previously devoted to other activities (Raiber et al., 2024). Many foreign studies therefore focus on the relationship between the participation of people of working age in the labour market and caring for a loved one (Kröger, Yeandle, 2013; Ehrlich et al., 2023). Combining work and informal care can be seen as a combination of two conflicting social roles, which in many cases have incompatible demands (Plasier et al., 2015) that can lead to a conflict between work and care (Koreshi, Alpass, 2023a). According to the available predictions we have mentioned, this conflict will intensify in the future, especially for women (Labbas, Stanfors, 2025). In the past, women were the main providers of informal care, but today they are increasingly entering and remaining in the labour market, which limits the time they can devote to caring for their loved ones (Patterson et al., 2019; Ehrlich et al., 2023; Labbas, Stanfors, 2025).

The strategies that informal caregivers develop and choose are shaped by several factors, including their social networks and the availability of formal services (Brimblecombe et al., 2016), as well as opportunities for work-life balance support (Ujházyová et al., 2022). Raiber et al. (2024) point out that the age of the person being cared for at the time of assuming responsibility for care, as well as the gender of the caregiver, play a significant role in deciding whether to choose or not to choose a particular strategy. A key prerequisite for the application of any strategy for combining work and informal care is the very existence of a conflict between work and care, i.e., a situation where informal caregivers are unable to satisfactorily combine work responsibilities with the provision of care (Raiber et al., 2024). When working informal caregivers encounter difficulties in combining work and care, their overall burden increases (Oldenkamp et al., 2017).

Based on the available literature, strategies for reconciling work and informal care for older people in the home environment can be classified into several categories: workplace-level strategies (e.g., Raiber et al., 2024), which include, for example, changing career paths, leaving work, or transitioning to self-employment. The authors also point out that the option of reducing working hours should be added to these strategies. Flexible forms of employment also play an important role in reconciling work and informal care and are considered in the literature to be important tools for mitigating the conflict between care and work responsibilities (Baingridge, Broady, 2017; Bainbridge, Townsend, 2020; Koreshi, Alpass, 2023a; Koreshi, Alpass, 2023b). In the Slovak context, flexible forms of employment are addressed, for example, by Jusko (2014) and Kordošová (2023). Research also emphasizes that, in addition to these work-related strategies, other approaches should also be considered, such as delegating care during working hours to a formal care system (e.g., social services) or other family members (Potočník, Hlebec, 2025). These strategies reflect the broader context of service availability and family solidarity in providing care for older people. Considering these findings, we set ourselves the following goal: to find out what strategies working informal caregivers use to balance work and informal care.

2 METHODS

The aim of the review study was to analyse published research studies in the field of combining work and informal care for older people. For this purpose, we chose a narrative review study, which represents a comprehensive narrative synthesis of published research study results (Green et al., 2006; Mareš, 2013; Gregory, Denniss, 2018; Sukhera, 2022). In preparing the narrative review study, we followed the procedures described in the works of Mareš (2013) and Sukhera (2022). Informal care provided to older people was defined as providing or organizing care for a close older person (aged 64 and over) (Jeřábek et al., 2005). Since we are working with the concept of a working informal caregiver, we consider such a person to be an informal caregiver who provides unpaid care and support to a person with a health disability, chronic or acute illness, while remaining active in the labour market (Kröger, Yeandle, 2013). From the available research studies in the field of reconciling work and informal care for older people, we selected those that explicitly addressed the specific strategies used by working informal caregivers to reconcile these two different roles. The process of searching for and selecting scientific studies was based on predefined criteria. The review study included studies published in the Web of Science (WoS) database between January 1, 2015, and October 31, 2025. This time frame was chosen to analyse current scientific knowledge on the subject. The narrative review study included research papers that examined strategies for reconciling work and informal care with a focus on older adults. The search in the Web of Science database was carried out in accordance with the above criteria using the following keywords: family care, unpaid care, strategies, informal care, older adults, labour. The keywords were entered in English. Based on the selection of research studies using the PRISMA flow diagram (Moher et al., 2009), we analysed empirically verified knowledge about strategies for reconciling work and informal care for older adults in the form of a secondary analysis of existing studies. At the same time, we also focused on gender aspects and the impact of individual strategies on the person and career trajectory of working informal caregivers. The initial screening was carried out on a sample of 53 articles/studies. Of this number, 22 studies focusing on home care services, 4 review studies, four studies without access to the full text, and 13 studies that did not cover work-life balance strategies or focused on balancing parental and work responsibilities. After the initial selection, 11 studies remained, from which we subsequently selected 7 studies for in-depth analysis. The findings from these studies were then interpreted in the context of strategies for combining work and informal care for older people.

3 RESULTS

Given the focus of the narrative review study, a total of 53 scientific studies and articles were identified in the initial search. Based on predefined selection criteria, seven empirical studies were subsequently selected that met the specified conditions and were published in the Web of Science database. The selected studies focused on strategies for reconciling work and informal care for older people and formed the core of the analytical part of this review study. Table 1 provides an overview of the basic characteristics of the included studies, including research design, objectives, research sample, and identified strategies for reconciling work and informal care that the individual studies focused on.

Table 1 Studies included in the narrative review.

Author(s)	Research design	Objective of the study	Research sample	Identified strategies
Koreshi, Y. S.; Alpass, F., 2023a **New Zealand**	Quantitative research	Explore how older employees balance informal care responsibilities and work	Participants in the Health, Work and Retirement (HWR) study in 2018 N = 3,965 and in 2020 N = 4,344 participated in the survey. Analytical sample for the study N = 610 respondents	Flexible forms of work
Kim, S., 2023 **USA**	Quantitative research	Explore the relationship between paid leave provided by employers and the provision of informal care among workers aged 45 and over	The sample consisted of N = 3,475 workers aged 45 and older. They focused on this target group, which is most likely to provide care to older people They combine the 2011 and 2017-2018 federal surveys	Employer-provided paid leave/ Flexible working hours
Ehrlich, U. et al., 2023 **Germany**	Quantitative research	Explore the relationship between the economic situation of households, family care, and work among women	The data comes from a representative panel study of households, collected once a year from more than 30,000 respondents	Reduced working hours/Leaving work
Bainbridge, J. T. H.; Townsend, K., 2020 **Australia**	Quantitative research	To explore the relationship between flexible forms of work and the perceived support of working informal caregivers on workplace	The research sample consists of N = 600 employees who provided care for a loved one	Flexible working arrangements (reduced working hours, home office)

Gautun, H.; Bratt, Ch. 2024 **Norway**	Quantitative research	Explore how working people combine work and caring for older family members (parents)	The research sample consists of a representative sample of N = 6,049 respondents aged between 35 and 67.	Employer-provided paid leave (e.g., sick leave)/Vacation
Koreshi, Y. S.; Aplass, F., 2023b **New Zealand**	Quantitative research	Explore whether there is a difference in the use of flexible forms of work between people who provide informal care and those who do not.	The research sample consisted of N=1,907 older adults and N=296 caregivers, aged up to 70 years.	Reduced working hours/Flexible working hours/Home office
Raiber, K. et al., 2024 **Netherlands**	Quantitative research	Explore strategies for balancing work and caring for a loved one	The research sample consists of N = 3,673, retrospective data on informal care in the Netherlands.	Reduced working hours/Flexible working hours/ Home office/Combination of strategies

Source: Own processing

An analysis of selected studies has shown that working informal caregivers use various strategies to combine work and informal care, with these strategies differing in the intensity of their impact on working life and the influence on the informal caregiver's career trajectory. From the studies analysed, we can identify three main categories of strategies for combining work and care: (1) workplace strategies without adjustments to working hours, (2) adjustments to working hours, (3) changes in the employee's career trajectory.

Workplace strategies without changing working hours: These include flexible forms of employment that allow informal caregivers to adapt their work performance to their caregiving responsibilities without significantly affecting their working hours (e.g., in Slovakia, these options are regulated by Act No. 311/2001 Coll. Labour Code). These include adjustments to working hours, adaptation of work duties, and working from home (Ehrlich et al., 2022; Koreshi, Alpass, 2023a; Koreshi, Alpass, 2023b; Raiber et al., 2024). These strategies act as preventive mechanisms against the departure of informal caregivers from the labour market and alleviate the stress associated with providing care. Other important options for supporting the reconciliation of work and informal care that employees can choose include paid leave options (and in some cases unpaid leave options). These options allow working caregivers to respond to the needs of their care recipients in the short term without having to choose, for example, to adjust their working hours or terminate their employment (Feinberg, 2019; Bainbridge, Townsend, 2020; Heymann et al., 2022; Koreshi, Alpass, 2023a; Gautun, Bratt, 2024).

Adjustment of working hours: this is a strategy whereby informal caregivers can more effectively regulate the time they devote to work and caregiving. These strategies include a temporary or permanent reduction in working hours by adjusting working hours (e.g., reduced working hours). The choice of this strategy is related to the flexibility of the informal caregiver's workplace and the intensity of the informal care provided (Raiber et al., 2023; Ehlrich et al., 2023).

Changes in an employee's career: these are strategies that significantly affect the career trajectory of an informal caregiver. These strategies are used primarily in situations where work responsibilities significantly conflict with informal caregiving responsibilities. These include a **change of job** (job position, workplace), **a transition to self-employment**, or complete termination of employment (Raiber et al., 2024; Ehrlich et al., 2023).

Across studies, the theme of gender differences in the provision of informal care consistently emerges, reflecting long-standing differences in the division of care responsibilities, which is also directly reflected in the choice of specific strategies for combining work and care (Raiber et al., 2024). At the same time, it appears that systemic support options for combining work and care play an important role. In countries with well-developed social protection systems, flexible employment options, adjusting working hours, or changing career paths are perceived as "preventive strategies" that make it easier for working informal caregivers to care for older adults one while supporting their economic activity. Raiber et al. (2024) add that it is also necessary to consider the fact that working informal caregivers often combine several strategies at the same time and may also use support from formal care systems.

4 DISCUSSION

The ageing population in Europe is putting pressure on long-term care systems, which in many European countries rely heavily on informal care provided in the home environment. Combined with growing pressure to raise the retirement age, an increasing proportion of the working-age population will face the challenge of balancing work responsibilities with caring for older adults. The aim of this review study was therefore to examine the strategies used by working informal caregivers to combine work and informal care for older people. Understanding these strategies allows us to understand how working informal caregivers respond to the conflicting demands of these two roles. Analysis of empirical studies has shown that combining work and informal care is not a one-time decision, but a dynamic adaptation process in which individuals combine or change individual strategies depending on the growing demands of care and the availability of support in the work environment and long-term care services. Research shows that, especially in the case of intensive and long-term care for older people, informal caregivers gradually reevaluate their involvement in the labour market. Working informal caregivers must respond to the combination of time demands and unpredictability of caring for older people. The identified strategies for combining work and care can be understood as a set of responses to the conflict between the roles of employee and informal caregiver. On the one hand, these are strategies that allow full participation in work to be maintained without interfering with the work schedule, mainly through flexible forms of work and the use of leave. In the studies analysed, these strategies are interpreted as primary adaptation mechanisms that working informal caregivers use mainly in the initial stages of care or when the intensity of care is lower (Koreshi, Alpass, 2023a; Raiber et al., 2023; Ehrlich et al., 2023; Gautun, Bratt, 2024). However, the authors also point out that these measures do not address the cumulative burden resulting from long-term care (Koreshi, Alpass, 2023a; Koreshi, Alpass, 2023b). Taking paid and unpaid leave can be seen as a temporary strategy for combining work and informal care. It allows working informal caregivers to respond to the acute needs of the person they care for without significantly disrupting their work trajectory. Research conducted by Kim (2023) showed that the possibility of taking paid or unpaid leave increases the likelihood of providing care among workers aged 45 and over. In Slovakia, for example, we also have several legal options that allow employees to provide care to a loved one. An example would be accompanying a family member to a healthcare facility (according to Section 141(2), (c) of Act No. 311/2001 Coll. Labour Code), which can be used for a maximum of seven days per calendar year. There is also the option of short-term or long-term sick leave if the employee is caring for a sick relative whose health condition requires it (according to Section 39 of Act No. 461/2003 Coll. on social insurance). Access to paid leave options for employees often provides them with the opportunity to continue working without having to leave the labour market (Kim, 2023).

Another group of strategies consists of strategies based on adjusting working hours, primarily by reducing them. These strategies have a more significant impact on working life and are usually chosen in situations where flexible forms of work no longer meet the demands of caregiving. Elhrich et al. (2023) found that for women, marital status plays an important role in the choice of strategies. Women living in a partnership have greater income security, which can mitigate the negative effects of reducing working hours. Several studies also point to the risk of income loss and long-term negative consequences for the social security of informal caregivers, which may become apparent especially after retirement. Finally, it is also necessary to discuss strategies related to fundamental changes in the career path of informal caregivers, such as changing jobs, transitioning to self-employment, or terminating employment altogether. It appears that these strategies are a response to the conflict between work and care that cannot be resolved through flexible forms of employment or adjustments to working conditions (Raiber et al., 2024; Ehrlich et al., 2024). The choice of specific strategies for combining work and informal care is often determined by other aspects, in particular gender inequalities, the availability of formal services, and the situation on the labour market. The analysed studies predominantly focus on strategies for reconciling paid work and informal care that are directly linked to working conditions or the employment trajectory of the informal caregiver. Less attention is paid to strategies implemented outside the workplace, particularly the delegation of care responsibilities to formal care services or to other family or community members, even though the availability of such options may significantly shape decision-making regarding strategies adopted within the work environment (see Potočník, Hlebec, 2025). Some studies suggest that these strategies can be used simultaneously (e.g., Raiber et al., 2024) and can significantly influence the combination of work and informal care, both positively and negatively. The absence of an analysis of a broader spectrum of strategies for reconciling work and informal care has been identified in several studies (e.g., Kim, 2023). At the same time, it should be noted that some studies do not distinguish between caring for older people and caring for children (e.g., Ehrlich et al., 2023), which can lead to simplified interpretations of the specifics of caring for older people.

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ALTERNATÍVNE POLOHY GRAFICKÉHO MÉDIA V OBLASTI VÝTVARNEJ PEDAGOGIKY

ALTERNATIVE POSITIONS OF GRAPHIC MEDIA IN THE FIELD OF ART EDUCATION

Martin Ševčovič, Xénia Bergerová

Abstrakt

Príspevok sa zaoberá problematikou alternatívnych prístupov k médiu grafiky vyskytujúcich sa v prácach vybraných poslucháčov výtvarnej edukácie. Na úvod ponúka terminologické východiská k problematike. V ďalších častiach sa venuje sledovaniu výskytu alternatívnych prístupov k médiu z dvoch línií. Prvou je línia alternatívy matrice, kde sledujeme využitie netradičných materiálov pre realizáciu matrice. Druhú líniu sme nazvali alternatíva postupu realizácie odtlačku, kde sa zameriavame na sledovanie výskytu nových stratégií pri prenose informácie z matrice na médium snímania odtlačku.

Kľúčové slová:*, alternatívna grafika, grafika, grafická doska, grafický list, matrice, štočok, odtlačok*

Abstract

The article deals with the issue of alternative approaches to the medium of graphics found in the works of selected art education students. It begins by offering a terminological basis for the issue. The following sections examine the occurrence of alternative approaches to the medium from two perspectives. The first is the alternative matrix line, where we observe the use of non-traditional materials for the realization of the matrix. We have called the second line the alternative print realization process, where we focus on observing the occurrence of new strategies in the transfer of information from the matrix to the print capture medium.

Key words: *alternative graphics, graphics, graphics board, graphic letter, matrix, printing plate, print*

1 ÚVOD

Alternatívne polohy grafického média ku skupine takzvaných klasických grafických techník považujeme za potrebné implementovať do edukačného procesu budúcich výtvarných pedagógov z dôvodu potreby rozšírenia ich možností využitia princípu odtlačku pri realizácii vizuálnych znakov. Práve potreba vyjadrenia môže naraziť na handicap pri nedostatočnej úrovni uchopenia remeselných postupov, čo môže brániť k expresii, ktorú Valachová definuje ako: *„V najširšom zmysle slova je expresia výraz, to znamená konkrétne, materiálne alebo telesné, zmyslovo vnímateľné vyjadrenie nejakého konkrétneho významu"* (Valachová, 2022, s. 20). To že záber potreby vyjadrenia siaha aj za areál skupiny výtvarne nadaných Kováčová vidí vo využití expresie pri tvorivej činnosti nielen u výtvarníkov, ale aj u každej expresívne orientovanej činnosti, kedy: *„človek (bez ohľadu na vek a zdravotný stav) prezentuje svoje emócie (a jednoznačne využíva pri svojej aktivite expresiu)"* (Kováčová, 2021, s. 150).

Výtvarná teoretička Vrbanová umiestnila na úvod publikácie *Alternatívna slovenská grafika - netradičné, experimentálne a autorské podoby slovenskej grafiky v druhej polovici 20. storočia*, nasledujúci výrok: *„Tie princípy, ktoré sú zavedené, treba porušiť. To je aj v umení. Keď neporušíte, tak zostanete stáť na jednom mieste)"* (Bartusz, 2018 In: Vrbanová, 2019, s.

8). Z pohľadu nášho vnímania sa nejedná o potrebu nejakej formy anarchie, ale skôr by sme ju nazvali potrebou odvahy vystúpiť zo zaužívaného a nebáť sa uchopiť nové. Práve v tom duchu vedieme študentov pri výučbe grafického média, všímať si situácie, ktoré možno z technologického pohľadu vyhodnocujeme ako nevydarené. Práve tie nám častokrát pootvárajú dvere do oblastí, ktoré treba preskúmať a technologicky uchopiť.

2 TERMINOLOGICKÉ VÝCHODISKÁ K PROBLEMATIKE

Význam slova grafika z gréckeho „grafein", v preklade označujeme pojmom kresliť, čo nás môže lákať k neúplnej interpretácii toho, čo sa za touto nesmierne bohatou množinou postupov a definícii môže skrývať. Skôr datované slovníky ponúkajú definície predmetného významu prihliadajúc na areál množiny takzvaných klasických grafických techník: *„Grafika je z technologického hľadiska špecifický výtvarný odbor využívajúci k realizácii diela a jeho rozmnožovania niektorú z ručných remeselných tlačiarenských metód (techník). Vlastný výtvarný motív je najskôr spracovaný na grafickej doske – matrici. Matrica sa neskôr nanesie farbou a motív sa z nej otlačí na papier (či iný materiál), a to buď tlačou priamou, alebo pomocou niektorého typu lisu"* (Kubička a Zelinger 2004, s. 79). Tejto množiny sa významov sa drží obsah väčšiny známych publikácií a bádaní z oblasti grafického média. Ako príklad uvedieme jeden z najkomplexnejších výskumov v oblasti slovenskej grafiky v 20. storočí. Jedna z jeho autoriek, Böhmerová píše o dôležitom faktore, ktorý treba splniť, aby sa mohlo hovoriť o grafike v plnom význame: *„Stvárnenie námetu v takom materiáli, z ktorého možno cielene zhotovovať istý počet odtlačkov – grafických listov, následne číslovaných a signovaných"* (Böhmerová a Jančár 2007, s. 6). V súčasnosti po uplynutí niekoľkých desaťročí nazeráme na sledovanú oblasť nielen optikou množiny klasických grafických techník, ale sledujeme expanziu problematiky za hranice spomínaného priestoru a našou úlohou je skôr potreba zadefinovať kam až môže siahať problematika odtlačku, ktorého vznik je podmienený existenciou matrice, ako uvádza napríklad Brun: *„podstatou grafického umenia je existencia matrice, v jej nespočetných modifikáciách a jej projekcia v určitej finálnej forme"* (Benca a kol. 2011, s. 29). Nedá nám nespomenúť pri odhaľovaní vývinu grafického média v minulom storočí výskum Dr. Vrbanovej, ktorá sa celý život zaoberala sledovaním predmetnej problematiky. *„Ešte začiatkom 30. a 40. rokov 20. storočia boli možnosti technického vytvárania kópií vnímané ako úskalia pre samotný status a povahu umenia. Éru dôsledkov technických možností reprodukovania, ako aj jeho voľného šírenia avizovali ešte v prvej polovici 20. storočia najmä texty Waltera Benjamína (strata aury originality umeleckého diela) a neskôr v polovici 60. rokov Marshalla McLuhana (medium is the message global village)"* (Benca a kol., 2017, s. 7). Ako ďalej Vrbanová uvádza, pre grafiku v dvadsiatom storočí bol typický akademický kresbový základ cez neoavantgardné a experimentálne, či autorské polohy, až k aktuálnym stratégiám grafickej tvorby. Najmä avantgardné smery, ktoré priniesli nový náhľad na vnímanie média grafiky v európskom kontexte. V druhej polovici minulého storočia sú to najmä neoavantgardné smery ako popart a informel, ktoré využívali neobvyklé typy tlače ako monotypia, či štrukturálna grafika. Predpokladáme, že ak nazrieme hlbšie do minulosti, tak aj samotná dnes úž ustálená množina známych remeselných postupov a materiálov z množiny takzvaných grafických techník počas svojho vývoja prechádzala rôznymi formami transformácie a posúvania svojich hraníc, čo priamo úmerne súviselo aj s vývojom nových a implementáciou nových materiálov, postupov a stratégií. Silným príkladom nám môže poslúžiť vynález linolea a jeho využite ako matrice pri výškotlačových, ale aj hĺbkotlačových grafických technikách. Oprieme sa o tvrdenie historika umenia Williama Ivinsa: *„Bez grafík by sme dnes mali len málo našich moderných vied, technológií, archeológií a etnológií – pretože tie všetky sú závislé na informáciách tlmočených pomocou presne opakovateľných vizuálnych alebo obrazových tvrdeniach."* (Sturken a Cartwright 2009, s. 198.) Výrok nám napovedá, že okrem rôznorodosti zapojenia technologických postupov a širokej škály materiálov si grafické médium upevnilo svoju pozíciu najmä v oblasti reprodukovania informácií, čo malo priamy vplyv na formovanie stavu súčasnej spoločnosti. Aj keď rozvojom technológií sledujeme presun jej hlavnej úlohy do nehmotného sveta „elektronickej matrice„. Ak odvedieme našu pozornosť na časť grafického média, ktorá je stále využívaná pre komunikáciu ideí kódovaných do vizuálneho jazyka stretávame sa s označením tlačený obraz ako napríklad uvádza Michálek: *„grafikou sa dajú nazvať výtvarné návrhy a realizácie, ktoré využívajú grafické prostriedky. Grafickými prostriedkami sa však rozumie nielen obraz, ale aj text, či iné prvky vizuálnej komunikácie. Vyzdvihujúc medzinárodnosť slova grafika môžeme konštatovať, že sa nazeranie na toto slovo výrazne odlišuje a spôsobuje isté nejasnosti. Na základe tejto skutočnosti sa často v súčasných publikáciách rozlišuje nielen voľná a úžitková grafika, ale aj jej ďalšie významové odtiene, čo môžeme vidieť napríklad v názve jedného belgického múzea grafiky, ako Múzeum grafiky a tlačeného obrazu“* (Michálek 2016, s. 8). Benca toto rozvádza a píše: *„Grafika je prioritne pomenovaná oblasť, ktorej signifikátorom je odtlačok a multiplikácia diela s nosným prvkom matrice"* (Benca a kol. 2011, s. 32). Jule označil súčasný stav grafického média pojmom *hybridná grafika. „...výsledkom súčasných grafických experimentov, pri ktorých dochádza ku kombinácii moderných a klasických techník (namiesto ich polarizácie) je akási hybridná grafika"* (Jule, 2000, s. 45). O hybridných formách grafiky Noyce píše: *„dve dvojice protikladov - digitálne/tradičné a výtvarné umenie/masová tvorba. Obe z týchto dvojíc ležia na koncových bodoch úsečky a ich priebeh sprevádzajú nespočítateľné variácie. Úsečky sa premietajú najrôznejšími spôsobmi a môžu sa objavovať aj hybridné formy grafiky. ....Dôležité je, že neexistuje správna odpoveď, žiadna dokonalá kombinácia faktorov"* (Noyce, 2006, s. 5). Význam slova hybridné v našich končinách bolo skôr zamenené za výraz transformované, či transmediálne, ako píše Benca v zmysle *„...priepustnosti a premenlivosti grafiky a jej schopnosť interakcie naprieč médiami. Zároveň jej schopnosť adaptácie a asimilácie s prostredím ostatných umeleckých druhov. Pričom nemusí, ale aj môže prísť k asimilácii, čiže k splynutiu s inými médiami, a tým k marginalizácii alebo strate niektorého, alebo všetkých signifikantných znakov grafiky, ktorými sú: matrica, odtlačok, tlač, stopa, multiplikácia alebo vizuálny jazyk"* (Benca a kol. 2011, s. 7). Pre lepšiu orientáciu v problematike uvedieme „aktuálne formovo-výrazové kategórie média grafiky", ako ich definovala už spomínaná výtvarná teoretička Vrbanová. Prvou je definícia uchopujúca množinu klasických grafických techník, ako ju chápeme v dnešnej dobe po jej niekoľko storočí trvajúcej transformácií. *„Grafika na báze klasických techník - autonómny výtvarný druh založený na autorskom vytvorení a spracovaní matrice rôznymi technikami od kresby, maľby, cez tradičné výškotlačové alebo hĺbkotlačové techniky, až po vytvorenie autorskej elektronickej „nehmotnej" matrice, z ktorých autor následne mechanicky odtláča alebo ručne tlačí multiplikáty - autorské kópie pôvodiny diela"* (Benca a kol. 2011, s. 24). Ďalej takzvaná *elektronicky manipulovaná grafika*, *grafický objekt*, *3D grafika, matrica ako definitívne dielo*, alebo stratégie siahajúce až za hranice grafiky, či *„**alternatívne prístupy k médiu** - súbor autorských experimentálnych alebo netradičných (neetablovaných, nerozšírených) technicko-realizačných postupov pri vzniku grafickej matrice a odtlačku, ktoré spĺňajú elementárnu podmienku odtláčania z matrice, nemusia však splniť podmienku multiplikovateľnosti"* (Benca a kol. 2011, s. 24).

3 ALTERNATÍVNE PRÍSTUPY K MÉDIU V TVORIVOM PROCESE POSLUCHÁČOV ŠTUDIJNÉHO PROGRAMU VÝTVARNÁ EDUKÁCIA

Alternatívne prístupy k médiu sú stratégie, ktoré pokladáme za kľúčové pri rozvíjaní zručností ale aj pre rozširovanie hraníc schopnosti myslenia v predmetnom médiu. Sme zástancami postupnosti, kedy je na začiatku dôležité zoznámenie sa s princípmi postupov z množiny klasických grafických techník. Osvojenie si remeselných postupov a prácu s materiálmi, ktoré využívajú. Tým sa vytvára pevná pôda pre ďalšie možnosti experimentovania a využitia alternatívnych prístupov k médiu. Spĺňajú elementárnu podmienku odtláčania z matrice, nemusia však splniť podmienku multiplikovateľnosti. Alternatívu môžeme sledovať v dvoch oblastiach. Prvou je alternatíva matrice, druhou je alternatíva postupu realizácie odtlačku.

Tab. 1. *Delenie klasických grafických techník podľa spôsobu tlače a materiálov, ktoré využívajú pre vytváranie matrice.*

delenie klasických grafických techník podľa spôsobu tlače			***alternatívne polohy grafického média v edukačnom procese budúcich výtvarných pedagógov:***	
spôsob tlače	**grafické techniky**		**materiál matrice**	**alternatíva**
tlač z hĺbky (hĺbkotlač)	rytiny	suchá ihla	kov	**plast, tetrapak, kartón...**
		škriabaná rytina (mezzotinta)	kov	
		mediryt	medený plech	
		oceloryt	oceľový plech	
	lepty	čiarkový lept	kov: zinok, meď, hliník	
		zrnkový lept (akvatinta)	kov: zinok, meď, hliník	
tlač z výšky	drevorez		drevo	
	drevoryt (xylografia)		drevo lepené a naprieč rezané	
	Linorez, linoryt		linoleum	
	kameňoryt		kameň	
	cementoryt		cement	
	kaparez, kaparyt			**kapa doska**
	štrukturálna grafika			**lepiace pásky, fólie, prírodniny a iné materiály uchopiteľné na povrchu,**
tlač z plochy	kameňotlač (litografia)	pérová litografia	litografický kameň	
		kriedová litografia	litografický kameň	
		lavírovaná litografia	litografický kameň	
		škriabaná litografia	litografický kameň	
	algrafia		hliník	
	ofset		hliník	
tlač cez sito (pretlač)	sieťotlač (serigrafia)		sieťovina	

(vlastná realizácia)

3.1 Alternatíva matrice

Pre lepšiu orientáciu sme vypracovali tabuľku prehľadu vybraných grafických techník podľa spôsobu tlače a materiálov, ktoré využívajú pri realizácii matrice. Doplnili sme ju o postupy a materiály z množiny alternatívnych postupov, využívaných v prácach sledovaných subjektov študujúcich študijný program výtvarná edukácia, magisterský stupeň (Tab. 1.). Najčastejšie sa stretávame nahradzovaním kovových dosiek materiálmi z rôznych druhov plastov. Väčšinou zámerom autorov je získať odtlačok štruktúry, ktoré jednotlivé materiály ponúkajú. Niektoré plastové grafické dosky ponúkajú aj možnosti aplikovania kresby a jej následné odtláčanie a tak spĺňajú podmienku multiplikácie odtlačku. Iné zas ako sme už spomínali neslúžia pre autorovu manipuláciu ale skôr si autori apropriujú jej povrch a pomocou prioritne výškotlačových grafických postupov vytvárajú odtlačky s abstraktnou formou. Za zmienku stojí práca s materiálom označovaným pojmom *kapa*. Prioritne slúži na kašírovanie fotografií, ale šetrným zaobchádzaním po odstránení vrchnej časti povrchu tvoriaceho papierom sa odhalí penová časť, do ktorej sa dá ľahko rezať a rýpať. Pri odtláčaní tlačou z výšky dosahujeme charakter odtlačku, ktorý nám navodzuje rovnaký dojem ako pri výtlačkoch zhotovovaných pomocou tlače z plochy z litografického kameňa (Obr. 1).

Obr. 1 ukážka výstupov z Workshopu Nº2 s názvom Alternatívne postupy k množine klasických grafických techník, tlač z výšky z matrice z materiálu kapa (archív autorov).

Obr. 2 a 3 ukážka výstupov z Workshopu Nº2 s názvom Alternatívne postupy k množine klasických grafických techník, tlač z výšky z matrice z materiálu kapa (archív autorov).

Ako ukážku uvádzame vybrané výstupy z Workshopu N°2 s názvom *Alternatívne postupy k množine klasických grafických techník*, kedy sme programovo pracovali s využitím materiálu kapa, ale aj s možnosťami štrukturálnej grafiky, kedy sme vytvárali rôzne kompozície pomocou lepiacich pások (Obr. 2, 3). Často sa stretávame s matricami z tetrapaku, do ktorého je suchou cestou aplikovaná kresba a následne tlačená hĺbkotlačou ako napríklad pri práci od Karin Kohutiarovej (Obr. 4). Tá cyklus s názvom *Ryby* kolorovala odtlačkami štruktúr získaných z rôznych dostupných fólií pomocou tlače z výšky. Podobnú stratégiu zvolila aj Ivana Mária Čechvalová (Obr. 5). Environmentálnu tematiku a snímanie odtlačkov nájdených a apropriovaných matríc môžeme sledovať v prácach Sabiny Kubíkovej, kedy vytvárala kompozície odtláčaním cestou tlače z výšky vecí nájdených v prírode, ktoré tam svojou povahou nepatria (Obr. 6, 7). Akčnosť pri získavaní odtlačkov sledujeme v prácach Adriany Pastrňákovej, ktorá snímala pomocou farby dezény podrážok topánok odtláčaním na papier (Obr. 8, 9).


Obr. 4 ukážka procesu práce pri vytváraní kompozície odtlačku od Ivany Márie Čechvalovej (archív autorov).
Obr. 5 ukážka kompozície odtlačku od Karin Kohutiarovej (archív autorov).


Obr. 6 a 7 ukážky kompozícií odtlaćkov od Sabiny Kubíkovej (archív autorov).

Obr. 8 a 9 ukážky kompozícií odtlačkov od Adriany Pastrňákovej (archív autorov).

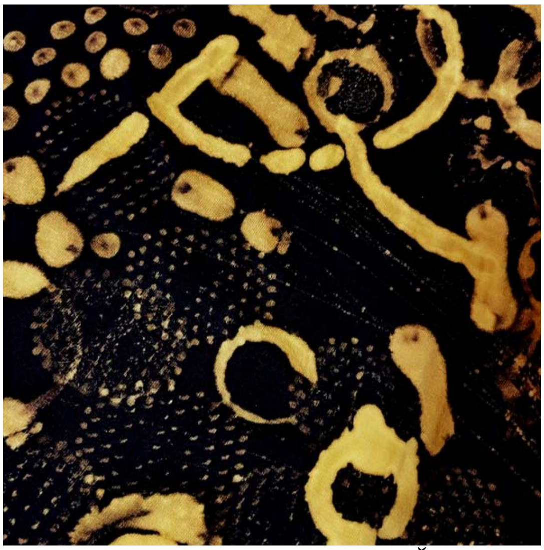
3.2 Alternatíva postupu realizácie odtlačku

Pre túto polohu je kľúčové sledovať stratégie a technologické postupy, ako sa výsledný odtlačok realizuje. Teda nenachádzame znaky základných postupov tlače ako je tlač z výšky, tlač z plochy, prietlač, či hĺbkotlač. Presun informácii z matrice na povrch snímania sa deje rôznymi inými cestami. Ako napríklad prenosom pigmentu z apropriovanej fotografie, či vý-

Obr. 10 a 11 ukážky kompozícií odtlačkov od Alexandry Schnekovej (archív autorov).

tlačku z novín na papier pomocou prenosového média. Ako ukážku uvádzame prácu Alexandry Schnekovej, ktorá autorskou technikou prenášala fotografie budov na nájdené a apropriované fragmenty zo zobrazovaných budov. Teda ako médium snímania odtlačku nám v tomto prípade slúžil betón a proces snímania prebiehal na základe chemického procesu pomocou zvoleného média zo spomínaných fotografií (Obr. 10, 11). Podobný princíp využívala Ema Fručeková, pri snímaní pigmentu z apropriovaných novín, v tomto prípade bol médiom snímania odtlačku farebný papier (Obr. 12, 13). Inú stratégiu zvolila Kristína Žáková, ktorá využívala výstupy po chemických reakciách nanesených látok na ready-made matrice odtlačené na textílie. Výsledný efekt vznikol zmenou farebnosti pigmentu na médiu snímania odtlačku (Obr. 14).

Obr. 12 a 13 ukážky kompozícií odtlačkov od Emy Fručekovej (archív autorov).



Obr. 14 ukážka kompozícií odtlačkov od Kristíny Žákovej (archív autorov).

Afiliácia
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NADANÝ ŽIAK V ŠKOLE

GIFTED PUPIL AT SCHOOL

Romana Schunová

Abstrakt

Téma nadania je vysoko aktuálna a skúma ju nielen psychológia, pedagogika, ale je predmetom záujmu aj ďalších odborov. Existujú rôzne druhy nadania, pričom uvedený výskum sa sústreďuje na intelektovo nadaných žiakov. Je dôležité vytvárať primerané výchovno-vzdelávacie podmienky pre optimálny rozvoj nadaných žiakov. V našom výskume sa zaoberáme otázkou, ako vnímajú nadaní žiaci školské prostredie a klímu školy, v ktorej prebieha výchovno-vzdelávací proces. Výskumný súbor tvorí 109 nadaných žiakov. Výsledky výskumu ukázali, že žiaci vnímajú školské prostredie a školskú klímu pozitívne.

Kľúčové slová: *nadanie, nadaný žiak, školské prostredie*

Abstract

The topic of giftedness is highly topical and is being explored not only by psychology and pedagogy, but also by other disciplines. There are different types of giftedness, and our research focuses on intellectually gifted pupils. It is important to create appropriate educational conditions for the optimal development of gifted pupils. In this research, we address the question of how gifted pupils perceive the school climate and conditions in which the educational process takes place. The research sample consists of 109 gifted pupils. The results of the research showed that pupils perceive the school environment and climate positively.

Key words: *giftedness, gifted pupil, school environment*

1 NADANIE A NADANÝ ŽIAK

Nadanie je biologicky daná vlastnosť, primárne znamená označenie pre vysokú úroveň inteligencie, ktorá je výsledkom predčasne rozvinutého a akcelerovaného spojenia mozgových funkcií, ktoré zahŕňajú zmysly, emócie, poznávanie a intuíciu. Sekundárne sa prejavuje v akcelerovanom procese myslenia, komplexnejšej identifikácii problému a jeho riešení, v používaní abstraktného myslenia, ktoré je často nezvyčajné a diverzné (Clarková, 2012). Nadanie sa chápe ako dar, ktorý umožňuje človeku presahovať výkony väčšiny ostatných, a ktorý umožňuje vyniknúť, hoci to nadaného človeka nestojí veľké úsilie. Nadanie je celá osobnosť človeka hodnotená z aspektu činnosti a možnej úspešnosti v nej (Dočkal, Duchovičová, 2017). Je výsledkom veľmi dynamického a interaktívneho procesu a prejavuje sa schopnosťami, ktoré sa prejavia v kognitívnej oblasti, poznávaní, chápaní, myslení, akademickej úspešnosti, kreativite. U nadaných sa zistila mimoriadna elektrická a biochemická aktivita mozgu a potvrdila sa obrovská schopnosť spracovania informácií (Laznibatová, 2012).

Existuje viacero druhov nadania, Dočkal a Duchovičová (2017) uvádzajú nasledovné druhy: pohybové, umelecké, rozumové (intelektové, akademické), praktické, tvorivé, všeobecné nadanie. Nasledujúca kapitola sa zaoberá témou intelektového nadania.

1.1 Intelektové nadanie

Zákon č. 245/2008 Z. z. o výchove a vzdelávaní (školský zákon) v §103 Výchova a vzdelávanie detí s nadaním alebo žiakov s nadaním vymedzuje intelektové nadanie ako jednu z oblastí nadania (popri umeleckom a športovom nadaní) (Jurášková a kol., 2023). Fábik (2019) opisuje intelektové nadanie ako niečo, čo sa v spoločnosti chápe ako vysoko nadpriemerná všeobecná intelektová spôsobilosť vzhľadom na populáciu. Dočkal (2005) považuje za intelektovo nadaného žiaka žiaka s akcelerovaným kognitívnym vývinom, ktorý je v porovnaní s rovesníkmi schopný výnimočných výkonov v jednej alebo viacerých intelektových činnostiach. Na to, aby bol žiak schopný nadanie využiť, potrebuje dostatočnú motiváciu, tvorivosť a adekvátnu stimuláciu z prostredia.

Na vzniku intelektového nadania sa podieľa dedičnosť a prostredie. V priebehu života je výška IQ relatívne stabilná, konštantná, a preto sa ani intelektové nadanie neobjavuje a ani nezaniká náhle alebo bezdôvodne (Fábik, 2019). Dieťa sa narodí s potenciálom pre nadanie a ďalej ho podporuje a posilňuje v rámci výchovy a vzdelávania. Pri definovaní intelektového nadania hovoríme o vysokom IQ, pričom presnejšie vymedzenie pojmu nadaný žiak si vyžiadala vzdelávacia prax (Hříbková, 2009).

Jednodimenzionálne poňatie nadania, kde v centre pozornosti boli rozumové schopnosti, bolo vystriedané multidimenzionálnym poňatím, to znamená, že vysoko rozvinuté rozumové schopnosti sú len jedným z predpokladov k podávaniu mimoriadneho výkonu. Výsledok a priebeh činnosti ovplyvňujú okrem schopností aj nekognitívne charakteristiky a osobnostné vlastnosti, vrátane vzájomných väzieb. Rozvoj schopností a ďalších vlastností osobnosti je závislý na interakcii osobnosti a sociálneho prostredia v priebehu celého života (Hříbková, 2009).

Za intelektovo nadané dieťa sa považuje dieťa s IQ nad 130. Dočkal (2005) uvádza, že stanovenie IQ hranicou 130 je limitujúce pri určovaní, či je dieťa nadané a vhodné na zaradenie do špeciálneho vzdelávacieho programu.

1.2 Intelektovo nadaný žiak v škole

Ako sme spomenuli vyššie, intelektovo nadaný žiak je žiak s IQ nad hodnotu 130. Existujú rôzne prístupy k nadaniu. Kognitívny prístup k nadaniu hovorí o výkonoch v kognitívnej oblasti, výnimočnosti v rámci učenia, pamäte, vedomostí, metakognície, atď.

V rámci kognitívneho prístupu sa uvádzajú intelektové a tvorivé charakteristiky nadaných žiakov, ku ktorým patria:

- žiaci používajú encyklopedické zdroje a moderné technológie,
- zaujímajú sa o vzťahy príčiny a následku,
- rozpoznávajú vzťahy medzi javmi,
- identifikujú nezrovnalosti,
- sú citliví na existenciu problémov,
- sú schopní správne a rýchle zovšeobecňovať,
- majú rozvinuté kritické myslenie, čo sa prejavuje tendenciou k pochybovaniu, polemike a zvýšenej sebakritike,
- majú bohatý slovník,
- využívajú abstraktné pojmy,
- pri hodnotení svojich a cudzích výsledkov činnosti sa riadia vlastnými kritériami,
- majú dlhšiu koncentráciu pozornosti ako ostatné deti v rovnakom veku (Hříbková, 2009).

K tvorivým charakteristikám nadaných žiakov patria:

- ľahko rozvinú fantáziu a imagináciu,
- sú intelektuálne hraví a zvedaví,
- sú schopní prijímať nové informácie a radi sa učia,
- sú flexibilní v myslení,
- spôsoby riešenia problémov a úloh sú originálne,
- typická je nekonvenčnosť v uvažovaní,
- majú vynikajúcu pamäť,
- sú výborní pozorovatelia a zapamätajú si detaily,
- pozornosť venujú len tomu, čo ich zaujalo (Hříbková, 2009).

K nekognitívnym charakteristikám nadaných žiakov patria:

- motivačné,
- emocionálne,
- sociálne charakteristiky (Hříbková, 2009).

Motivácia u nadaných žiakov je skôr vnútorná ako vonkajšia, nadané deti sú cieľavedomé, vyznačujú sa vytrvalosťou v prípade, že ich niečo zaujme, majú rôznorodé záujmy, duševná činnosť im robí radosť a neboja sa riskovať.

Čo sa týka emocionálnych charakteristík, nadaní žiaci majú zvýšenú potrebu emocionálnej podpory a emocionálneho prijatia, sú citliví, vnímaví, pôsobia ako emocionálne menej zrelí ako ich rovesníci, pri obhajovaní svojich názorov sa vyjadrujú expresívne, priťahuje ich estetická stránka veci (Hříbková, 2009). Laznibatová (2012) uvádza v rámci emocionálnej sféry zníženú adaptabilitu, úzkostlivosť, plačlivosť, zvýšenú predstavivosť, obrazotvornosť, hyperaktivitu, výbušnosť, impulzivitu a precitlivenosť. Negatívnym sa javí byť sklon k perfekcionizmu, a to hlavne, keď v ňom prevláda strach z možných chýb, čo môže viesť k nedostatku sebadôvery a brzdiť školský výkon (Dočkal, 2005).

K sociálnym charakteristikám môžeme zaradiť potrebu voľnosti a aktivity, nadaní priťahujú pozornosť okolia, v skupine majú väčšinou extrémnu pozíciu, majú buď vysoké alebo naopak veľmi nízke sociálne zručnosti, majú zmysel pre humor, ktorému možno nie každý porozumie, vyhľadávajú staršie deti pre komunikáciu, môžu mať vzhľadom na perfekcionizmus problém so sebadôverou a neadekvátnym utváraním sebaobrazu (Hříbková, 2009). Na to, aby sa vrodené vlohy mohli pretransformovať na schopnosti, ktoré sa pretavia do výkonov, sú nevyhnutné vlastnosti ako vôľa, ctižiadosť, ako aj vhodné spoločenské podmienky a príležitosti (Szobiová, 2004). V tomto ohľade zohráva dôležitú rolu školské prostredie a adekvátny prístup k nadaným žiakom v školách, aby mohli rozvinúť svoje nadanie.

Ku školským prejavom nadaných žiakov patria:

- preferujú individuálne učenie pred skupinovým,
- radi si samostatne vyhľadávajú informácie a pracujú s nimi,
- ich vedomosti presahujú požadovaný rozsah a hĺbku učiva,
- preferujú problémové úlohy,
- snažia sa o dokonalé splnenie úlohy,
- radi polemizujú s učiteľmi (Hříbková, 2009).

Nadaní žiaci kladú veľa otázok, majú neobvyklé nápady, samostatne robia závery, iniciujú projekty, vytvárajú nové riešenia, majú radosť z učenia a intelektuálnej činnosti (Laznibatová, 2012).

Študijné výsledky nadaných žiakov pozitívne korelujú so vzdelaním rodičov, podnetnosťou rodinného prostredia, úrovňou rodičovských ašpirácií, emocionálnou podporou, či aktívnym vedením ku snahe o dobrý výkon (Spera, 2005). Vysoké IQ nie je zárukou pre úspešný školský výkon. Nadaní žiaci z dôvodu vysokej inteligencie predpokladajú, že všetky úlohy zvládnu bez problémov a keď podajú nižší výkon, mávajú ťažkosti s motiváciou, následne môžeme u niektorých žiakov pozorovať strach zo zlyhania, neúspechu, zlyhávanie v školských výkonoch. Učiteľ by sa mal zaujímať o to, ako žiak posudzuje svoje schopnosti (Dweck, 2017). Dôležitý je postoj učiteľa k nadanému žiakovi (Hříbková, 2009).

2 NADANÝ ŽIAK A ŠKOLSKÉ PROSTREDIE

V rozvoji a podpore nadania zohráva dôležitú rolu školské prostredie a podpora pozitívnej školskej klímy. Škola ako inštitúcia predstavuje systém vlastných pravidiel, noriem a špecifických sociálnych vzťahov. Obdržálek a kol. (2004) definujú školskú klímu ako dlhodobejšie vzťahy spojené s citmi, ako ustálený systém spojený s prežívaním a medziľudskými vzťahmi. Takýto systém môže zohrávať veľkú úlohu v začleňovaní jednotlivca do kolektívu a posilňovať pocit spolupatričnosti medzi členmi komunity, má vplyv na emocionálne naladenie jej členov, ktoré ovplyvňuje kvalitu vzdelávania v škole. Grecmanová (2008) označuje klímu školy ako prejav jej prostredia s ekologickou, demografickou, sociálnou a kultúrnou dimenziou, ktorý vnímajú, prežívajú a hodnotia jej účastníci, t. j. žiaci, učitelia, rodičia, verejnosť, a pod. Školská klíma je dynamická a mení sa v závislosti od školských politík, vzájomných vzťahov medzi učiteľmi a žiakmi, zahŕňa rôzne aspekty, ktoré ovplyvňujú pracovný výkon aktérov školskej klímy, ale aj ich emocionálny stav.

Komplexnejšie vymedzenie školskej klímy zahŕňa interakcie medzi prostredím a osobnosťou, kultúru školy s jej normami a hodnotami a celkový súhrn individuálnych pohľadov členov školy. Užšie definície hovoria o organizačnej stránke, hovoria o hodnotách, cieľoch školy, o sprostredkovaní vzťahov medzi učiteľmi a žiakmi, o psychickom stave školy a pravidlách fungovania v triede (Petlák, 2006). Rozličné definície zdôrazňujú odlišné dimenzie klímy, od pravidiel a noriem, cez ekologické a sociálne prostredie, až po emocionálne a vzťahové faktory. Terminologická rozmanitosť poukazuje na mnohostrannosť a subjektívne vnímanie školského prostredia. Školská klíma je multidimenzionálny koncept, ktorý závisí od vnímania členov školskej komunity, je teda skôr subjektívnou realitou ľudí v škole (Ryberg a kol., 2020).

V súvislosti s faktormi, ktoré majú vplyv na školské prostredie a klímu, Petlák (2006) rozlišuje vnútorné a vonkajšie faktory, pričom k vnútorným faktorom zaraďuje vzťahy medzi učiteľmi, žiakmi, rodičmi, školskú infraštruktúru a vnútorné vybavenie školy, pričom vonkajšie faktory sú ekologické a sociálne prostredie. Škola reaguje na vonkajší kontext ako je typ školy, vzdelávací program, poloha školy, a pod. Škola nie je izolovaným subjektom, je prepojená so širším prostredím (Grecmanová, 2008). Jiang a Liu (2024) uvádzajú, že klíma školy je súhrn všetkých hmotných a nehmotných prvkov školského prostredia, ktoré každý člen vníma a ktoré formujú jeho psychické prežívanie a správanie. Cohen a kol. (2009) hovorí o štyroch faktoroch vplývajúcich na školské prostredie a klímu: bezpečnosť, medziľudské vzťahy, proces výučby a učenia, a vonkajšie prostredie. Ryberg a kol. (2020) uvádzajú faktory ako angažovanosť, ktorá predstavuje možnosti žiakov nadväzovať vzťahy a zúčastňovať sa na školských aktivitách; bezpečnosť, ktorá znamená chrániť žiakov po emocionálnej a fyzickej stránke; prostredie, ktoré zahŕňa kvalitu školských priestorov, podporných mechanizmov, úroveň akademických požiadaviek a disciplinárne opatrenia. Existujú aj faktory, na ktoré škola skôr nemá vplyv, ale na školskú klímu vplývajú, a to sú napríklad rodinné zázemie žiaka, aktuálny emocionálny stav členov výučby, zdravotný stav, a pod. Raoof a kol. (2024) hovoria o individuálnych faktoroch ako zlé duševné zdravie, emocionálne poruchy, poruchy správania, slabé sebapoňatie, strach zo zlyhania, poruchy učenia, a pod. Optimálna klíma podporuje rozvoj individuality a jedinečných vlastností žiakov i učiteľov. Je dôležité, aby sa k žiakom pristupovalo ako k jednotlivcom s jedinečným prežívaním, s dôrazom na ich osobitosti a s rešpektom k ich odlišnosti (Janoško, Svetlíková, 2021).

Školské prostredie a vhodná klíma pri vzdelávaní nadaných žiakov podporuje interpersonálne kompetencie ako rozvoj empatie, skupinovej činnosti, tolerancie, rozvoj kompetencií na pokojné riešenie konfliktov, taktu, korektnej komunikácie a argumentácie. Tiež je podstatné sústrediť sa na rozvoj intrapersonálnych kompetencií ako poznávanie seba samého, vedenie k sebaúcte, k porozumeniu sebe samému, poznaniu silných a slabých stránok, možnosti zdokonaľovania, optimalizácie perfekcionizmu (Dočkal, Duchovičová, 2017).

3 VÝSKUM

Cieľom výskumu bolo zistiť, ako vnímajú žiaci školské prostredie v školách pre nadané deti a či existujú rozdiely medzi jednotlivými ročníkmi. Výskum je kvantitatívny, exploračný a komparačný. Dáta boli spracované v MS Excel a pomocou štatistického programu SPSS.

Stanovili sme si výskumné otázky:
VO1: Aká je úroveň vnímania školskej klímy v školách pre nadaných žiakov?
VO2: Existujú rozdiely vo vnímaní školskej klímy v školách pre nadaných žiakov medzi jednotlivými ročníkmi?

Výskumný súbor tvorilo 109 participantov, žiakov z dvoch škôl pre nadané deti vo veku od 11 rokov do 15 rokov. Výber výskumného súboru bol zámerný.

3.1 Metóda výskumu

Vo výskume bola použitá dotazníková metóda, pričom nástrojom na meranie školskej klímy bol dotazník s názvom Georgia Secondary School Climate Survey, ktorý je určený pre žiakov 6. ročníka základných škôl až po 4. ročník stredných škôl. V rámci dotazníka participanti uvádzali sociodemografické údaje ako pohlavie, ročník a vek. Uvedený dotazník má tieto dimenzie: vzťahy v škole (VVŠ), charakter žiaka a jeho komunikácia (CHA), prostredie školy (PRŠ), sociálna opora dospelých (SOD), sociálna opora rovesníkov (SOR), kultúrna akceptácia (KUL), poriadok a disciplína (PAD), bezpečnosť (BEZ) a mentálne zdravie (MEN). Škála odpovedí je od úplne nesúhlasím po úplne súhlasím. Batéria dotazníkov Georgia School Climate Survey bola overovaná v rámci výskumného projektu Cross-cultural School Climate Study (La Salle, Meyers, 2014). Na Slovensku použili dotazník školskej klímy Gajdošová a Majerčáková Albertová (2018) na štyroch vybraných základných školách v Bratislavskom samosprávnom kraji. Výskumu sa zúčastnilo 529 žiakov, 125 pedagogických zamestnancov a odborných pracovníkov škôl a 614 rodičov. Na výskume participovalo 1571 participantov. Cieľom výskumu bolo overovať medzinárodné dotazníky školskej klímy. Celková úroveň hodnoty Cronbachova alfa je v dotazníku školskej klímy 0.864.

3.2 Výsledky výskumu

Výsledky v tabuľke č. 1 uvádzajú úroveň školskej klímy v škole pre nadané deti v Bratislavskom kraji. Celková úroveň školskej klímy je M=2.72, to znamená pásmo pozitívneho vnímania školskej klímy.

Tabuľka č. 1 Úroveň školskej klímy

Popisná štatistika pre GSCS

	VVŠ	CHA	PRŠ	SOD	SOR	KUL	PAD	BEZ	TOTAL	MEN
Priemer	2,82	3,21	2,39	3,03	3,08	2,73	2,51	1,98	2,72	6,16
Medián	3,00	3,17	2,50	3,25	3,33	2,80	2,60	2,00	2,74	6,63
Modus	2,80	3,50	2,50	4,00	3,33	2,60	2,80	1,00	2,26	7,00
Št. odchýlka	0,71	0,50	0,55	0,80	0,55	0,66	0,61	0,83	0,38	1,14
Šikmosť	-0,41	-0,75	0,16	-0,77	-0,60	-0,56	-0,25	0,65	-0,13	-2,21
Špicatosť	-0,55	1,69	-0,41	0,11	-0,26	0,08	-0,46	-0,47	-0,72	5,83
Minimum	1,20	1,33	1,25	1,00	2,00	1,00	1,00	1,00	1,96	1,00
Maximum	4,00	4,00	3,50	4,00	4,00	3,80	3,60	4,00	3,45	7,00

V škole pre nadané deti v Žilinskom kraji dosiahla úroveň školskej klímy hodnotu M=2.96, čo takisto znamená pásmo pozitívneho vnímania školskej klímy. Jednotlivé dimenzie dosiahli tieto hodnoty: 2.95 (VVŠ), 3.43 (CHA), 2.45 (PRŠ), 2.95 (SOD), 3.3 (SOR), 2.89 (KUL), 2.86 (PAD), 3.01 (BEZ).

Tabuľka č. 2 ukazuje, že existujú štatisticky významné rozdiely medzi jednotlivými ročníkmi v škole pre nadané deti v niektorých dimenziách, a to v dimenziách: vzťahy v škole (VVŠ), charakter žiaka a jeho komunikácia (CHA), prostredie školy (PRŠ), sociálna opora rovesníkov (SOR), kultúra školy (KUL).

Tabuľka č. 2 Rozdiely medzi ročníkmi

Rozdiely v GSCS podľa faktoru trieda

Štatistika	VVŠ	CHA	PRŠ	SOD	SOR	KUL	PAD	BEZ	TOTAL	MEN
H	13,809	8,004	14,476	6,821	17,532	8,884	7,481	4,450	13,784	4,735
df	3	3	3	3	3	3	3	3	3	3
p	**0,003**	**0,046**	**0,002**	0,078	**0,001**	**0,031**	0,058	0,217	**0,003**	0,192
η^2	0,161	0,075	0,171	0,057	0,217	0,088	0,067	0,022	0,161	0,026

V škole pre nadané deti v Žilinskom kraji boli zistené nasledovné hodnoty vnímania školskej klímy v jednotlivých ročníkoch: 5. ročník hodnota 3.0; 7. ročník hodnota 3.0 a 8. ročník hodnota 2.9.

3.3 Diskusia

Cieľom nášho výskumu bolo zistiť, ako vnímajú žiaci škôl pre nadané deti školskú klímu, pričom sme zistili, že žiaci oboch škôl vnímajú školskú klímu pozitívne. Takisto sme zisťovali rozdiely medzi jednotlivými ročníkmi. Ukázali sa štatisticky významné rozdiely medzi ročníkmi v škole pre nadané deti v Bratislavskom kraji v niekoľkých dimenziách, a to: vzťahy v škole, charakter žiaka a jeho komunikácia, prostredie školy, sociálna opora rovesníkov a kultúra školy. Výsledky pozitívneho vnímania školskej klímy sú podporené existenciou podporného prostredia a školských podporných tímov v oboch školách. Aby boli nadaní žiaci schopní podávať čo najlepšie výsledky vzhľadom na ich potenciál, je potrebné im poskytnúť čo najlepšiu podporu pre rast a rozvoj. Ak žiaci nevnímajú, že sa o nich učitelia zaujímajú, negatívne to môže ovplyvniť ich motiváciu a osobnú pohodu, ako aj školský výkon. Pozitívne vnímanie školského prostredia posilní ich sebavedomie, sebadôveru, sebaobraz.

Na Slovensku sa téme školskej klímy venovali Szobiová a Polák (2019). Výskumný súbor v ich výskume tvorilo 136 žiakov základnej školy, 12 pedagogických pracovníkov a odborných zamestnancov školy, 112 rodičov. Z výsledkov vyplynulo, že najnižšie hodnotili školskú klímu žiaci 1. stupňa M=1.97, hodnotenie spadá do negatívneho pásma vnímania školskej klímy. Gajdošová a Majerčáková Albertová (2018) naopak zistili pozitívne vnímanie školskej klímy, ako na 1. stupni, tak aj na 2. stupni základnej školy, pričom výskumu sa zúčastnilo 832 žiakov.

V zahraničí sa venovali výskumu školskej klímy napr. Kumar, Phil a Vijay (2013), pričom výsledkom ich výskumu bolo, že klíma školy má vplyv na dosahovanie výkonov a využitie potenciálu nadaných detí, pričom autori zdôraznili význam otvorenej školskej klímy. Podľa autorov má priateľská a príjemná atmosféra v školskom prostredí vplyv na well-being žiakov, na ich duševné zdravie, žiaci sa cítia nezávislejší a slobodnejší, dosahujú lepšie študijné výsledky.

Porozumieť potrebám nadaných je nevyhnutné. Vzdelávanie pedagogických pracovníkov v tejto oblasti vedie k zlepšovaniu školskej klímy a tým k lepším akademickým výsledkom a lepšiemu duševnému zdraviu a osobnej pohode nadaných žiakov.

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SÚVISLOSTI DIGITÁLNYCH MÉDIÍ VZHĽADOM NA POZORNOSŤ A GRAFOMOTORICKÉ ZRUČNOSTI DETÍ MLADŠIEHO ŠKOLSKÉHO VEKU

THE RELATIONSHIP BETWEEN DIGITAL MEDIA, ATTENTION, AND GRAPHOMOTOR SKILLS IN YOUNGER SCHOOL-AGED CHILDREN

Annamária Šimšíková, Jana Mastišová

Abstrakt

Deti mladšieho školského veku sú bežnými používateľmi digitálnych médií s pripojením na internet. V teoreticko-empirickej štúdii sa zameriavame na úlohu digitálnych médií vzhľadom na rozvoj grafomotorických zručností a pozornosti u detí mladšieho školského veku. V teoretickej časti analyzujeme súvislosti používania digitálnych médií a grafomotorických zručností detí mladšieho školského veku. V empirickej časti poskytujeme parciálne výsledky výskumu. Na základe obsahovej analýzy z interview so 198 pedagogickými zamestnancami základných škôl a 7 odbornými zamestnancami CPP v Slovenskej republike sme zistili, že 68 učiteľov a 3 odborní zamestnanci pozorujú prítomnosť technologických a interných distraktorov pozornosti u detí mladšieho školského veku v súvislosti s používaním digitálnych médií.

Kľúčové slová: *grafomotorické zručnosti, digitálne médiá, pozornosť, exekutívne funkcie, deti mladšieho školského veku*

Abstract

Younger school-aged children are regular users of internet-connected digital media. This theoretical-empirical study focuses on the role of digital media in relation to the development of graphomotor skills and attention in younger school-aged children. In the theoretical section, we analyze the connections between the use of digital media and the graphomotor skills of younger school-aged children. The empirical section presents partial research findings. Based on content analysis of interviews with 198 primary school teachers and 7 specialists from counseling and prevention centers in the Slovak Republic, we found that 68 teachers and 3 specialists reported observing the presence of technological and internal attention distractors among younger school-aged children, in connection with the use of digital media.

Key words: *graphomotor skills, digital media, attention, executive functions, children of early school age*

1 TEORETICKÉ VÝCHODISKÁ RIEŠENEJ PROBLEMATIKY

Hlavným faktorom zlepšenia grafomotoriky sú vývinové zmeny súvisiace s vekom, predovšetkým vo vekovom rozmedzí 4–6 rokov. Najvýraznejší pokrok vývinu grafomotoriky nastáva okolo 5. roku života. K maturácii exekutívnych funkcií dochádza v predškolskom a školskom veku (5–8 rokov), kedy dochádza k významným štrukturálnym a funkčným zmenám vo frontálnych (prefrontálnych) oblastiach mozgu. Dochádza napríklad k zlepšeniu schopnosti organizovať a kontrolovať pohyby a to na základe schopnosti sekvenčnej organizácii pohybov - zlepšuje sa schopnosť vykonávať a prepájať sériovo viacero motorických činností, ako sú: schopnosť sledovať a riadiť zložité pohybové vzory počas písania. Do vývinu grafomotoriky sa premieta aj zlepšenie schopnosti vnímať priestorové vzťahy a tvary, ktoré sa s vekom posilňuje (Vasileva, 2023).

Podľa výskumu Vasileva (2023) len približne 1/8 detí vo veku 6 rokov dosahuje úpl nú zrelosť grafomotorických zručností. Grafomotorické zručnosti sa podieľajú na úrovni budúceho písania, preto je potrebné ich rozvíjať vo viacerých oblastiach. Pre budúce písanie je potrebné rozvíjať predovšetkým psychické funkcie ako zmyslové vnímanie (zrakové, sluchové, hmatové, ale tiež vnímanie vlastného tela), diferenciačné schopnosti, priestorovú orientáciu a predstavivosť, pamäť, ale aj zrakové a sluchové analyticko-syntetické činnosti. O tom, ako sa bude u detí predškolského veku grafomotorika rozvíjať rozhoduje niekoľko faktorov, ktoré rozdeľujeme na endogénne a exogénne. Dôležitým faktorom je predovšetkým vývinová variabilita, nakoľko medzi deťmi vo veku 6 rokov sú veľké rozdiely v dozrievaní exekutívnych funkcií, vizuomotorickej koordinácie a schopnosti plánovať pohybové sekvencie. Ďalším faktorom ovplyvňujúcim úroveň grafomotoriky môže byť nedostatočná systematická príprava v predškolských zariadeniach, kde sa nevenuje dostatok času špecifickým grafomotorickým cvičeniam. Na úroveň pôsobia tiež sociálne a demografické faktory, teda prostredie, v ktorom dieťa vyrastá. To má významný vplyv na rozvoj hrubej a jemnej motoriky.

Podľa Doležalovej (2010) je grafomotoriku detí potrebné rozvíjať postupne. Začíname rozvojom hrubej motoriky a oboznamovaním sa grafických prostriedkov a materiálov. Postupne sa pokračuje rozvojom grafomotoriky pričom sa zameriavame na podporu jemnej motoriky a psychických funkcií. Súhlasíme s tvrdením Lipnickej et al. (2019), že rozvoj grafomotoriky dieťaťa v predprimárnom vzdelávaní je premyslené a postupné zdokonaľovanie kognitívnych a motorických funkcií organizmu pre vykonávanie primeraných pisateľských a kresliarskych činností. Pre rozvoj grafomotoriky je významná názornosť a aktívny prístup detí k nácviku prvkov tlačených a písaných písmen zábavnou formou, vhodnými postupmi a spôsobmi. Grafomotorické aktivity sú činnosti, v ktorých deti využívajú nielen kreslenie ale aj začiatočné písanie. Môžeme ich triediť podľa viacerých kritérií. Rozdeľujeme ich napríklad podľa cieľa a obsahu na grafomotorické uvoľňovacie cvičenia, cvičenia zamerané na nácvik určitého javu, dokresľovanie obrázkov, kreslenie podľa šablóny, alebo cvičenia zamerané na nácvik nových tvarových prvkov písmen.

Formálne sa deti v slovenských školách začínajú učiť písať v 1. ročníku základnej školy. Hovoríme o elementárnom písaní. Písanie prváka závisí predovšetkým od úrovne psychických procesov, vizuálno-motorickej činnosti a jej koordinácie so sluchovým vnímaním a myslením, ale aj od grafomotorických schopností. Úroveň grafomotorických zručností 6 – 7 ročných detí prichádzajúcich do základnej školy má určité odlišnosti, preto je pri ich nácviku písania potrebné postupovať individuálne.

Kuzeva et al. (2015) sledovali deti vo veku 7-9 rokov v prvom a druhom ročníku základných škôl. Zahrnuli aj deti so špeciálnymi vzdelávacími potrebami. Zistilo sa, že grafomotorické zručnosti sa vyvíjajú nerovnomerne medzi prvým a druhým ročníkom základnej školy. Na jednej strane sa zlepšuje rýchlosť písania a znižuje chybovosť, ale dochádza k zhoršeniu priestorových charakteristík písania.

Deti prichádzajú do kontaktu s digitálnou technológiou už v ranom veku, pred dosiahnutím psychomotorickej zrelosti. Borghi (2023) v naratívnej literárnej recenzii poukazuje na pozitívny vzťah medzi jemnou motorikou a schopnosťou písania, potenciálny negatívny vplyv skorého vystavenia digitálnym médiám na psychomotorický vývin.

Zistenia týkajúce sa vzťahu medzi používaním digitálnych zariadení a grafomotorickými zručnosťami sú v rôznych štúdiách nejednotné. Wollscheid et al. (2015) uviedli, že prístupy kognitívnej psychológie a neurovedy zdôrazňujúce motorické učenie a proprioceptívnu spätnú väzbu, konzistentne uprednostňujú písanie rukou a sociokultúrne prístupy môžu zdôrazňovať zapojenie, motiváciu, sociálny kontext a teda uprednostňujú digitálne písanie.

- Alamargot & Morin (2015) sa v rámci experimentálneho výskumu zamerali na akútne účinky digitálnych písacích povrchov a obvyklú pasívnu expozíciu obrazovkám. Experimentálne manipulovali s písacou plochou a porovnávali písanie rukou na digitálnom tablete s plastovým hrotom pera a písanie na papieri s guličkovým perom. Výskum preukázal, že písanie na digitálnych tabletoch narúša vykonávanie grafomotoriky prostredníctvom zmenenej propriokinestetickej spätnej väzby. Dochádza k modifikácii propriokinetickej spätnej väzby spôsobenej kombináciou obrazovky a pera s plastovým hrotom. Povrchy tabletov teda menia propriokinetickú spätnú väzbu a narúšajú grafomotorickú realizáciu. Mladšie deti, teda žiaci druhého ročníka (približne 7-8 rokov) vykazovali poruchy pri výpočte trajektórie segmentu (pauzy/ prestávky pera). Žiaci deviateho ročníka (približne 14-15 rokov) vykazovali zníženú kontrolu svalového prispôsobenia - svalovej úpravy v pohyboch perom. Autori tak poskytli mechanistický pohľad na rozdiely spojené s vekom. To naznačuje, že vývinové štádium osvojovania grafomotorických zručností určuje, ktoré aspekty písania sú najviac citlivé na poruchy spôsobené povrchom. Mladšie deti sa pri tvorbe písmen spoliehajú predovšetkým na percepčnú spätnú väzbu, čo znamená, že zmenená proprioceptívna spätná väzba z dotykových plôch tabletov narúša ich procesy výpočtu dráhy. Staršie deti, ktoré využívajú percepčnú spätnú väzbu najmä na úpravu pohybu, zažívajú miesto toho narušenie svalovej kontroly. To naznačuje, že digitálne povrchy môžu ovplyvňovať rôzne aspekty grafomotorického výkonu v závislosti od vývinového štádia u dieťaťa.
- Znížené trenie povrchov tabletov sa javí ako zásadná zmena pri vykonávaní grafomotorických úkonov. Písanie na tabletoch znižovalo čitateľnosť, zatiaľ čo zväčšovalo veľkosť písma a rýchlosť, pričom súčasne dochádzalo k zníženiu tlaku pri písaní vďaka ľahšiemu kĺzaniu stylusu po povrchu (No & Choi, 2021). Zistenie súvisí s pozorovaniami, že kombinácia obrazovky a plastového hrotu modifikuje propriokinetickú spätnú väzbu.
- Cherdyntseva and Yakubenko (2022) sa zameriavali na mladších školákov v prvých ročníkoch základnej školy, ktoré zažili dištančné vzdelávanie s digitálnymi vzdelávacími technológiami. Mladší školáci, ktorí sa zúčastnili dištančného vzdelávania, vykazovali nedostatočné tvorenie jednotlivých komponentov jemnej motoriky, konkrétne problémy s kreslením rovnej čiary a udržiavaním polohy ruky. Limitom štúdie je že absentuje diagnostické údaje z obdobia pred prechodom na dištančné vzdelávanie, čo vylučuje možnosť vyniesť kauzálne závery.
- Štúdia Daryanti and Fitriahadi (2022) priamo skúmala vzťah medzi intenzitou používania digitálnych zariadení a výsledkami pozornosti u detí vo veku 7 – 10 rokov. Zistili štatisticky významný vplyv intenzity používania gadgetov na narušenie pozornosti u detí mladšieho školského veku (p=0,000). Štúdia merala „narušenie sústredenia pozornosti“ ako hlavný výsledok. Smer asociácie bol negatívny, čo naznačuje, že vyššia intenzita používania gadgetov bola spojená s väčším narušením pozornosti. Z výsledkov bivariátnej analýzy sa zistilo, že intenzita používania gadgetov ovplyvňuje poruchy pozornosti u školopovinných detí.
- Operto et al., (2023) realizovali výskum ohľadom prirodzeného každodenného používania zariadení s 185 respondentmi vo veku 3-6 rokov, ktorí trávili priemerne 3,08 ± 2,30 hodiny denne na digitálnych zariadeniach, pričom prvá expozícia televízii nastala vo veku 17,15 mesiaca, smartfónom vo veku 29,56 mesiaca a tabletom vo veku 31,66 mesiaca. Štúdia vylúčila deti s lekárskymi alebo neuropsychiatrickými diagnózami. Na základe štandardizovaného testu na posúdenie jemných motorických zručností (APCM-2) sa zistilo, že neexistuje výrazná súvislosť medzi každodenným používaním digitálnych

zariadení a úrovňou jemnej motoriky (r=-0,036, p=0,640). Ďalej sa zistilo, že mladšie deti boli vystavené digitálnym zariadeniam skôr v mladšom veku než staršie deti a že deti s pracujúcimi rodičmi používali digitálne zariadenia viac, pričom faktory sa neprejavili významnými účinkami na jemné motorické zručnosti. Štúdia tak zdôraznila význam interaktívnych verzus pasívnych nástrojov a spoločného sledovania s rodičmi.

- Pre deti vo veku 5-6 rokov pilotné dôkazy naznačujú, že haptické zariadenia môžu podporovať grafomotorický vývoj s vysokou angažovanosťou a použiteľnosťou.

Štúdie naznačujú, že vek ovplyvňuje nielen rozvoj grafomotorických zručností, ale aj účinky používania digitálnych zariadení. Rôzne typy sledovanej expozície vo výskumoch predstavujú fragmentovaný pohľad na vzťah digitálnych zariadení k rozvoju grafomotoriky detí.
Na druhej strane digitálne médiá môžu slúžiť ako efektívne nástroje na hodnotenie grafomotorických ťažkostí. Štúdia Asselborn et al. (2018) ukázala, že hodnotenie na tablete môže dosiahnuť diagnostickú presnosť na úrovni človeka pre dysgrafiu, pričom diagnostický nástroj extrahoval 53 rukopisných čŕt opisujúcich dynamiku písania, tlak pera a jeho sklon. Tento prístup dosiahol citlivosť 96,6 % a špecificitu 99,2 % v porovnaní s hodnotením odborníkov. Podobne v pilotnej štúdií Ceccacci et al. (2024) testovali inovatívne haptické zariadenie (Geomagic Touch X). Je integrované do virtuálneho vzdelávacieho prostredia (VLE) a využíva Wacom grafický tablet + smart pen na zber dát o písaní (tlak, rýchlosť, uhol), RGB kamery na sledovanie držania tela a ruky a softvér s AI a DSS (Decision Support System) na analýzu motoriky, emócií. Analyzovali grafomotorický výkon a motorickú koordináciu detí v reálnom čase. Zistilo sa, že deti vo veku 5 rokov dokázali rýchlo zvládnuť prácu s haptickým zariadením, vykazovali vyššiu mieru zapojenia než pri klasických drevených grafomotorických doskách. Zariadenie poskytuje spätnú väzbu (force feedback) - vytvára odpor, ktorý simuluje reálny kontakt, čím simuluje odpor pri písaní, a to pomáha precvičovať jemnú motoriku a koordináciu pohybov. Zariadenie môže byť využité ako efektívna pedagogická pomôcka na prevenciu grafomotorických problémov u detí vo veku 5 až 6 rokov a môže slúžiť ako doplnkový tréningový zdroj na pozorovanie a zlepšovanie grafomotorických procesov.
V príspevku používame pojem digitálne médiá, termín zahŕňa internet ako médium, digitálne zariadenie (televízor, tablet, smartfón).

2 METODOLÓGIA

Parciálnym cieľom výskumu je zistiť asociácie pozornosti ako faktora grafomotorických zručností vzhľadom na používanie digitálnych médií u detí mladšieho školského veku v Slovenskej republike. Zisťovali sme, aká je úroveň pozornosti detí mladšieho školského veku.
V rámci aktuálne prebiehajúceho výskumu sa hĺbkového interview zatiaľ zúčastnilo 198 pedagogických zamestnancov základných škôl a 7 odborných zamestnancov CPP v Slovenskej republike.

3 ZISTENIA A DISKUSIA

Na základe analýzy realizovaných rozhovorov so 198 pedagogickými zamestnancami základných škôl a 7 odborných zamestnancov v CPP v Slovenskej republike zisťujeme, že 68 pedagogických zamestnancov a 3 odborní zamestnanci pozorovali súvislosť medzi používaním digitálnych médií a zníženou schopnosťou sústrediť sa a udržať pozornosť na vyučovaní u detí mladšieho školského veku. *„U veľa žiakov sa prejavuje porucha pozornosti, ktorá môže byť spôsobená práve používaním digitálnych zariadení"* (učiteľ, 27 r., Bratislavský kraj). „*Majú poruchy učenia aj pozornosti, koncentrácie*" (špeciálny pedagóg CPP, 55 r., Prešovský kraj). Viditeľná je *„zhoršená pozornosť a sústredenosť počas vyučovania."* (pedagogický asistent, 37 r., Banskobystrický kraj).

Pedagogickí a odborní zamestnanci identifikovali distraktory pozornosti u detí mladšieho školského veku:

1. Technologické distraktory:

a) digitálne médiá: *„Pozorujem skôr úpadok pozornosti, ktorý je často spojený s nadmerným používaním informačno-komunikačných technológií – najmä tabletov“* (učiteľ, 25 r. Žilinský kraj); *„Často pozorujem aj problémy so sústredením sa v triede alebo zníženú pozornosť pri výučbe po dlhšom používaní mobilu či tabletu“* (učiteľ, 51 r., Žilinský kraj); U žiakov so ŠVVP bolo pozorované, že *„mobilný telefón zvyšuje ich nepozornosť na vyučovaní“* (učiteľ, 55 r., Košický kraj).

b) multitasking: *„Rizík je veľa, napríklad deti si zvykajú na rýchle podnety, rýchle prepínanie pozornosti a krátke formy obsahu spôsobujú zníženú schopnosť sústrediť sa na dlhšie úlohy, čítanie či písanie“* (zástupca riaditeľa, 54 r., Žilinský kraj). Multitasking zasahuje rozsah pozornosti. Digitálne médiá s pripojením na internet totiž generujú počet informácií, ktoré ľudský mozog nedokáže efektívne spracovať naraz. Keď počet digitálnych podnetov zo zariadenia, notifikácie, aplikácií presiahne kapacitu pracovného pamäťového systému, dochádza ku kognitívnemu preťaženiu. V dôsledku častejšieho multitaskingu medzi úlohami dochádza k poklesu sústredenia, ďalej zvýšenej únave, pretože mozog spotrebúva viac energie na filtrovanie podnetov. Môže dôjsť tiež k chybovosti a stresu, čo následne môže viesť k zhoršeniu rozhodovania a pamäti. Podľa rozvojdietata.sk (2022, s. 1) „*Dieťa s nedostatočnou pozornosťou pri písaní začne veľmi rýchlo robiť chyby. Opakované chyby pri písaní následne zapríčiňujú, že sa mentálne úsilie dieťaťa oslabí natoľko, že začne pri písaní produkovať problémové správanie, aby mohlo túto aktivitu čo najskôr ukončiť, prípadne na chvíľku prerušiť*.“

2. Interné distraktory:

a) únava: „*Všímam si, že deti trávia neprimerane veľa času pri obrazovkách, často aj na úkor spánku či pohybu. Tento nadmerný čas v online prostredí môže negatívne ovplyvniť ich správanie aj pozornosť v škole“* (učiteľ, 45 r., Trnavský kraj). „*Vtedy sa môžu objaviť ťažkosti so spánkom, pozornosťou či správaním*“ (psychológ CPP, 27 r., Žilinský kraj). S únavou súvisí tenacita pozornosti, to je dĺžka sústredenia. Tenacita je príliš krátka, *„žiaci prichádzajú unavení, nevedia sa sústrediť, rýchlo vyčerpajú svoju pozornosť“* (učiteľ, 33 r., Košický kraj).

b) emócie: *„tiež pozorujeme u detí, ktoré pravidelne trávia viac času na digitálnych zariadeniach emočné ťažkosti a narušenú pozornosť“* (riaditeľ, 55 r. Prešovský kraj).

Identifikované bolo nadmerné používanie digitálnych médií: „*nevhodné a nadmerné používanie môže mať negatívny dopad na pozornosť, spánok a sociálne vzťahy dieťaťa*“ (špeciálny pedagóg CPP, 42 r., Žilinský kraj). *„U detí sa prejavuje nesústredenosť, bolesť hlavy a nevyspatosť, často spôsobené nadmerným používaním mobilov či tabletov, najmä vo večerných hodinách. Tieto prejavy negatívne ovplyvňujú ich pozornosť aj celkovú pohodu počas dňa“* (pedagogický asistent, 21 r., Prešovský kraj). Čas ako faktor (dlhé používanie) zvyšuje riziko oboch typov distraktorov: Pri externých distraktoroch (technologické), viac času spôsobuje zvyšovanie podnetov z prostredia a pri internom distraktore viac času stráveného s digitálnymi médiami spôsobuje silnejšie vnútorné prepojenie (závislosť) na médiu, čo vedie k rozptýleniu aj mimo používania digitálneho média.

Existuje málo vedeckých štúdii, ktoré by deklarovali korelácie jemnej motoriky a kognitívnych funkcií, špecificky úrovne pozornosti. Vo všeobecnosti je pozornosť dôležitou súčasťou výkonu pohybových schopností. Pozornosť je potrebná na správne využitie senzorickej spätnej väzby. Koordinovaný dobrovoľný pohyb si vyžaduje túto senzorickú spätnú väzbu v reálnom čase (Tseng et al., 2004). Koordinovaná vôľová motorika vyžaduje priebežnú senzorickú spätnú väzbu a udržaná pozornosť je jadrovou zložkou exekutívneho systému, potrebnou na rýchle reakcie. Poruchy udržanej pozornosti sa spájajú so stratou automatizácie pohybu (Koning, 2024).

Kübler et al. (2006) poukázali na skutočnosť, že exekutívne funkcie (vrátane pozornosti) sa aktivujú pri učení nových motorických vzorcov, kým sa úloha nestane automatickou. Pri grafomotorike to znamená, že pozornosť je kľúčová v počiatočných fázach písania a kreslenia.

Smith-Spark and Gordon (2022) analogicky poukazujú na skutočnosť, že exekutívne funkcie (pozornosť) a kognitívna kontrola sú faktorom grafomotoriky najmä v počiatočných fázach učenia (procese učenia sa nových alebo náročných motorických úloh alebo na motorickej adaptácii), či pri zložitých úlohách. V neskorších fázach, keď sa úloha stáva automatizovanou, úloha exekutívnych funkcii (pozornosti) klesá.

Zhou & Tolmie (2024) potvrdili teóriu „embodied cognition" - prepojenie motorického a kognitívneho vývoja. Zistili, že jemné motorické schopnosti predikujú výkon v exekutívnych funkciách, konkrétne v pracovnej pamäti a pozornosti u detí až do 11 rokov života.

Odporúčania:

V súčasnej dobe, kedy generácia Alfa od raného detstva disponuje digitálnymi médiami je vhodné podporiť u detí rozvoj grafomotorických zručností. To začína rozvojom udržanej pozornosti, teda dlhodobého sústredenia. „*Nemôžeme zakázať digitálny svet, ale osobne nepodporujem SmartBooks a podobné digitálne pomôcky pre deti na 1. stupni. Myslím si, že deti majú hlavne písať, čítať, strihať, modelovať, pohybovať sa veľa vonku*" (učiteľ, 47 r., Žilinský kraj).

Za účelom zlepšenia pozornosti, je vhodné zaradiť úlohy s jasnými pravidlami a presnosťou, ako napríklad motorické cvičenia zamerané na motorickú presnosť, ako napríklad úlohy vyžadujúce presné vedenie pohybu (presnostné), nakoľko sú opakovateľné, štruktúrované a vyžadujú vysokú koncentráciu, priamo trénujú schopnosť zamerať pozornosť na detail. Pri realizácií úloh zameraných na motorickú presnosť respondenti vykazovali významné zlepšenie selektívnej pozornosti ($p < 0{,}01$) (Frika & Alharbi, 2023).

Jedlickova and Sleziakova (2023) sa v rámci programu „Method of Good Start" zameranom na deti s poruchou písania a ADHD zamerali na stimuláciu jemnej motoriky s cielenými cvičeniami pre rozvoj pozornosti. Zistilo sa, že deti s ADHD a dysgrafiou preukázali zlepšenie motorického výkonu aj schopnosti udržať pozornosť.

Na rozvoj grafomotorických schopností je potrebné myslieť ešte pred nástupom do hlavného prúdu vzdelávania – povinná školská dochádzka. Podľa Vasileva (2023) u detí predškolského veku je vhodné aplikovať kombináciu vedených cvičení a voľnej kresby, ďalej systematicky rozvíjať vizuomotorickú koordináciu prostredníctvom opakovaných úloh, kde deti kreslia kontinuálne pohyby bez zdvíhania ruky, čím sa posilňuje plynulosť a spojitosť pohybov. Následne sa odporúča zahrnúť sériovú organizáciu (napr. pravidelné opakovanie dvojprvkových vzorov) so zameraním na automatizáciu, organizáciu sekvencií a kontrolu kresby.

Kombinácia motoriky a výtvarných činností efektívne rozvíja motorické a reakčné schopnosti, avšak bez výrazného účinku na pozornosť detí (Frika & Alharbi, 2023). Menej štruktúrované aktivity ako výtvarné aktivity napríklad kreatívne kreslenie sú vhodnejšie na rozvoj estetického vnímania, nie na rozvoj pozornosti u detí.

Spoločenské a rodinné faktory, napríklad čítanie doma, upútavky na text v okolí, navštevovanie knižníc silno ovplyvňujú kvalitu jemnej motoriky (Sinvani et al., 2023).

4 ZÁVER

V teoretickej rovine zisťujeme, že existujú empirické dôkazy o účinkoch digitálnych médií na grafomotorické zručnosti a intenzite používania digitálnych zariadení ovplyvňujúcej pozornosť, avšak žiadna štúdia priamo neskúmala, či pozornosť, alebo rozptyl pozornosti sprostredkováva alebo moderuje vzťah medzi používaním digitálnych zariadení a rozvojom grafomotorických zručností u malých detí. Neexistuje tiež exaktný dôkaz o tom, či rutinný čas trávený deťmi pri obrazovkách – takzvaný *screentime* ovplyvňuje rozvoj grafomotorických zručností detí. To predstavuje aj limity nášho výskumu. V empirickej rovine zisťujeme prítomnosť technologických a interných distraktorov pozornosti detí mladšieho školského veku vzhľadom na používanie digitálnych médii. Na základe zistení navrhujeme exaktne preskúmať frekvenciu času venovaného na rozvoj grafomotorických zručností a času, ktorý je venovaný používaniu digitálnych médií deťmi mladšieho školského veku.

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RIZIKÁ HRANIA DIGITÁLNYCH HIER DEŤMI MLADŠIEHO ŠKOLSKÉHO VEKU

RISKS OF DIGITAL GAMEPLAY AMONG CHILDREN OF YOUNGER SCHOOL AGE

Mária Karasová, Annamária Šimšíková

Abstrakt

Digitálne hry sú súčasťou detského sveta generácie Alfa. Vzhľadom na edukačné výzvy súčasnosti je nutné zaoberať sa otázkou, nakoľko sú vhodné a primerané pre ich vek. V príspevku sa zameriavame na aspekty hrania digitálnych hier u detí mladšieho školského veku. Aplikovali sme výskumné metódy: dotazník, pološtruktúrované interview, pozorovanie a obsahovú analýzu. Výskumu sa zúčastnilo 107 detí mladšieho školského veku vo veku (7-11) rokov. Deti mladšieho školského veku preferujú strieľacie, násilné a hororové hry. Vek hrania hier nevhodných pre danú vekovú kategóriu detí sa znižuje. V rámci multiplayer módov sa deti stretávajú s kyberagresiou a nevhodnou komunikáciou online. Primárnymi motívmi hrania digitálnych hier u detí mladšieho školského veku je zábava, eliminácia nudy a herní YouTuberi. V prípade detí je nutná časová a obsahová regulácia.

Klíčová slova: *digitálne hry, mladší školský vek, riziká hrania digitálnych hier, digitálne médiá*

Abstract

Digital games constitute an integral part of the world of Alpha generation children. In light of contemporary educational challenges, it is essential to examine the extent to which these games are suitable and age-appropriate. This paper focuses on the aspects of digital game playing among younger school-aged children. We employed research methods including questionnaires, semi-structured interviews, observation, and content analysis. The study involved 107 younger school-aged children aged 7 to 11 years. Findings indicate that children in this age group prefer shooting, violent, and horror games. The age at which children engage in games inappropriate for their developmental stage is decreasing. Within multiplayer modes, children are exposed to cyber aggression and inappropriate online communication. The primary motives for playing digital games among younger school-aged children include entertainment, boredom reduction, and influence from gaming YouTubers. Time and content regulation is necessary in the case of children.

Keywords: *digital games, younger school age, risks of playing digital games, digital media*

1 ÚVOD

Deti tzv. generácia Alfa (2013 – 2025), sa narodili do sveta digitálnych médií. Súčasťou životného prostredia tejto generácie sú neodmysliteľne digitálne zariadenia, napríklad smartfóny, ktorými bez väčších problémov manipulujú a využívajú ich na uspokojenie potrieb. Digitálne médiá sú pre deti lákavé, pretože sa dajú intuitívne ovládať a nie je ťažké získať akékoľvek informácie či aplikácie. Jednoduchosť dostupnosti digitálneho obsahu otvára množstvo závažných otázok, ktoré súvisia s následkami využívania digitálnych médií deťmi. Deti mladšieho školského veku sú najfrekventovanejšie fascinované digitálnymi hrami. V príspevku používame pojem digitálne hry, pretože terminologicky počítačové hry sú spojené s hraním hier primárne na počítači a digitálne hry okrem počítačov zahŕňajú aj zariadenia ako tablety, smartfóny a hracie konzoly. Práve cez tieto digitálne zariadenia deti najčastejšie pristupujú k digitálnym hrám. Podľa Kardarasa (2021) dôvodom, prečo sa deti zaujímajú o digitálne hry, ako sú fantasy, je hľadanie hlbšieho spojenia a zmysluplnosti, únik z reality, ktorý môže mať rôzne príčiny, ako napríklad neschopnosť detí zapadnúť do rovesníckej skupiny, pocit, že nie sú tak šikovní, ako ich rovesníci, prípadne ide o introvertné deti. Možno doplniť, že rovesnícka skupina predstavuje podporný faktor hrania digitálnych hier (keď hrajú všetci, musím aj ja), ďalej je to vzor starších súrodencov, nedostatok pozornosti, či stanovenie hraníc hrania hier zo strany rodičov detí. Obmedzenie digitálnej hry sa týka skôr časového limitu, nie obsahu (Karasová, 2017).

2 TEORETICKÉ VÝCHODISKÁ

Digitálne hry sa neustále inovujú, mnohé hry majú aktualizácie a vylepšenia v pravidelnej periodicite a to nielen v spojení s neustále sa zdokonaľujúcou grafikou, ale tiež efektami (najmä 3D), kvalitnejším zvukom, či možnosťami, aké hra ponúka. Za dobrú hru sa považuje taká, ktorá obsahuje prvky (realita vs. fikcia, príbeh, pravidlá, hráči, čas, odmeňovanie, dostupnosť, dizajn a iné) dodávajúce kvalitu a má ciele spojené s poskytovaním spätnej väzby hráčovi. Ciele hry (merateľné výsledky) ovplyvňujú kvalitu hry (Karasová, Koperdanová, 2021). Dnešné hry poskytujú virtuálny zážitok na vysokej úrovni. Vovádzajú do sveta, z ktorého sa vďaka vyplavovaniu dopamínu, hráč ťažko vracia k realite.

Účinky hier na správanie sa hráčov môžu byť pozitívne, ako napríklad zlepšovanie sociálnych a mentálnych zručností, schopnosť riešiť problémové situácie, rovnako však môžu byť aj negatívne, kde okrem iného patria agresia, násilie, úzkosť a stres (Quiwaider, Alabed, Duwairi, 2019).

Systém odmeňovania motivuje hráča pokračovať v hre, pretože vyvoláva pocit úspechu a spôsobuje pozitívne emócie (Serc, 2020). Práve rýchle odmeňovanie a túžba po výhre posilňujú vyplavovanie dopamínu v mozgu dieťaťa (Mikulcová, 2017). Stimulácie rôzneho druhu menia štruktúry mozgu a ovplyvňujú spôsob myslenia ľudí, čo sa deje počas celého života. Myslenie ľudí je modifikované v dôsledku permanentného vystavenia podnetmi z médií a kultúry. Je dôležité si uvedomiť, že vzorce myslenia sa menia postupne vzhľadom na množstvo hodín, počas ktorých sú vystavení podnetom a sústredenej pozornosti (Prensky, 2001). Skeny ľudského mozgu preukázali, že svietiace obrazovky – dotykové displeje – stimulujú centrum potešenia v mozgu a sú schopné zvýšiť hladiny dopamínu. Keďže dopamín je neurotransmiter spôsobujúci príjemné pocity, dotykové obrazovky sú návykové nielen pre deti. Vo vyššej miere to platí pre deti, ktorých mozog je vo vývoji a nedokáže sa vysporiadať s takou úrovňou stimulácie (Kardaras, 2021). Zvýšenou aktiváciou dopamínu sa mozog prispôsobuje situácii, a preto dlhodobé narušenie systému odmeňovania môže viesť k abstinenčným stavom, rastúcej tolerancii a negatívnemu posilňovaniu. Vek tu zohráva dôležitú rolu: čím sú užívatelia mladší, tým sú náchylnejší (Blinka et al., 2015; Spitzer, 2015; Kardaras, 2021). Stavy spojené s nadmerným hraním hier sa označujú ako nadmerné hranie online aj offline hier, netolizmus (IAD), prípadne ako internetová herná porucha (IGD, GD) (Patarák, 2018; Fertaľová et al, 2019; Kardaras, 2021; André et al, 2022; Kol, Topgul, 2022). Detskí a adolescentní psychiatri, tiež pracovníci školského zdravotníctva deklarujú výskyt poruchového hrania medzi žiakmi. Opisujú nutkavosť hrania, psychické a fyzické symptómy, zhoršený školský výkon ako súčasti poruchy. Bola preukázaná diferenciácia nadmerného hrania hier vzhľadom na pohlavie v prospech mužskej populácie. Prevalencia býva vyššia v prípade adolescentov. Hranie hier má u chlapcov skôr sociálny charakter, u dievčat emocionálny (André et al, 2022).

Vystavovanie detí vo vývine prílišnému množstvu podnetov predstavuje problém. U detí predškolského a mladšieho školského veku nie je možné s istotou konštatovať, že ide o závislosť, avšak ich návyky v súčasnosti vo veľkej miere predikujú vyššiu pravdepodobnosť vzniku závislosti vo vyššom veku.

Výzvou a silným rizikovým faktorom hrania digitálnych hier je gamifikácia. Jej základom je systém odmeňovania, ktorý je využívaný nielen v hrách ale i v neherných oblastiach spojených s marketingom. Marketing túto techniku využíva na oslovenie zákazníkov a sprostredkovanie výhod zapojením sa do vernostných programov a nákupných aplikácií (Held, 2015). Napriek frekventovanému zdôrazňovaniu edukačného charakteru hier, nepoznáme dostatočné štúdie, ktoré by potvrdzovali prospešnosť využívania dotykových obrazoviek v kontexte lepších študijných výsledkov žiakov (Kardaras, 2021).

V prípade populárnej hry ako je napríklad *Minecraft* sa stretávame s množstvom marketingu, ktorý profituje tiež z počítačovej literatúry. Tento druh literatúry je nenáročný, skôr doplnkom pre hráčov, pričom hráči po nej siahnu väčšinou len v prípade, že nemôžu hrať danú hru (Karasová, Koperdanová, 2021). V roku 2017 najpreferovanejšou knihou prevažne u chlapcov bola kniha *Minecraft,* pričom práve u chlapcov rapídne klesá čitateľská gramotnosť (Chanasová, 2017). Okrem knižnej formy sa s príručkami ako hrať konkrétnu hru, stretávame aj na internete (Alterego, 2019; Literama, 2019). Tie majú nielen podobu textu, príťažlivého grafického spracovania v podobe komiksov, či v ikonickej, ktoré už dnes aj tak nie sú primárnym záujmom hráčov, preto viac odkazujú na videá, ktoré nie sú typickými príručkami, skôr laickými návodmi mnohých influencerov. Aj jedna z novších kníh *Minecraft: Nová knižka na celý rok* (2022) presmeruje pozornosť čitateľov na stránku *wikiminecraft*, prípadne iné virtuálne komunity, kde si môžu hráči navzájom radiť a zdieľať svoje herné postupy a budovať komunitu. Rovnako odkazuje na videá. Tým sa snaha o zlepšenie čitateľskej gramotnosti rýchlo presmeruje opäť ku digitálnemu obsahu a tvorbe virtuálnych vzťahov. Obsahovo je kniha tvorená prevažne popisným štýlom veľkých obrázkov, text je skôr chudobný. Pritom práve deti mladšieho školského veku potrebujú rozvíjať čítanie s porozumením. Kniha je opäť skôr reklamou a vstupenkou do virtuality.

Deti mladšieho školského veku radi sledujú Youtuberov, ktorí hrajú hry a komentujú ich. Okrem preberania vzorcov správania, najmä komunikačných, sledujú herné techniky. Medzi najsledovanejších hráčov patrili v roku 2019 *Gogoman, Moon, Asimister, Evžen* (Hlavatovič, 2019). Množstvo hier je založených na mikrotransakciách, ktorých rafinovanosť je spojená s vyššou pravdepodobnosťou výhry a s rôznymi vylepšeniami (Procházka, 2020). S tým sa stretávame nielen pri hrách, ku ktorým deti pristupujú cez Obchod Play, ale tiež v prípade platforiem ako napríklad *Roblox.* Pre rozsah príspevku sme uviedli len niektoré prvky hier a herného priemyslu ako aj dôsledky ich hrania.

3 METODIKA VÝSKUMU A INTERPRETÁCIA

V príspevku predstavujeme parciálne výsledky výskumu zameraného na úlohu digitálnych médií s pripojením na internet u detí mladšieho školského veku, špecificky identifikáciu pozitív a rizík.

Parciálnymi cieľmi bolo zistiť preferencie digitálnych hier u detí mladšieho školského veku analyzovať obsah digitálnych hier z hľadiska rizikovosti a zistiť dôvody hrania digitálnych hier u detí mladšieho školského veku. Vzhľadom na ciele boli stanovené výskumné otázky:

VO1: Aké sú preferencie digitálnych hier u detí mladšieho školského veku?

VO2: Aké sú riziká hrania digitálnych hier vzhľadom na správanie detí mladšieho školského veku?

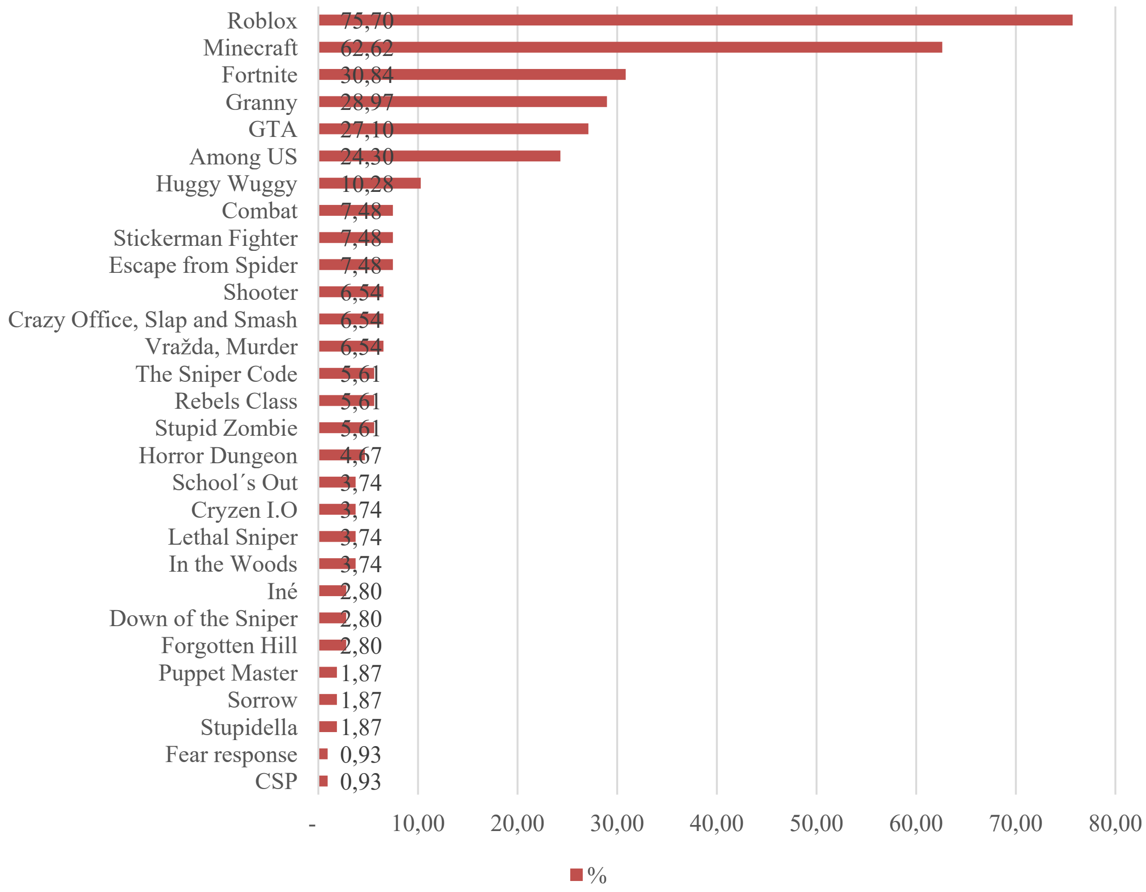
VO3: Aké sú dôvody hrania digitálnych hier u detí mladšieho školského veku?

Výskum má kvantitatívno-kvalitatívny charakter. Triangulácia bola zabezpečená použitím výskumných metód: dotazník, pološtruktúrované interview, pozorovanie a obsahová analýza.

Pološtruktúrované interview boli realizované s deťmi mladšieho školského veku 7 – 11 (N=107) v Slovenskej republike, (AM=9,02) rokov. Interview sa zúčastnilo 60 chlapcov a 47 dievčat.

3.1 Interpretácia zistení

Vzhľadom na preferencie digitálnych hier u detí mladšieho školského veku prinášame zistenia, že medzi najfrekventovanejšie zariadenia, ktoré využívajú deti na hranie digitálnych hier patria mobil (81,3%), počítač (47,7%), tablet (46,7%) a konzola (20,6%). Zariadenia s nižším zastúpením boli Ipad, PS, nintendo, x-box a podobné.
Následne sme sa zamerali na identifikovanie preferencií digitálnych hier u detí mladšieho školského veku. Zistenia poskytujeme formou grafu:



Graf 1: Preferencie digitálnych hier (N=107)

Empirické dáta naznačujú, že medzi najčastejšie hrané hry patria hry z platformy *Roblox, Minecraft, Fortnite, Granny a GTA.* Je zrejmé, že z obsahového hľadiska ide prevažne o násilné strieľacie hry (*Fortnite, GTA),* hororové hry (deti uvádzali hry podobné *Granny*, ktoré hrali aj na platforme *Roblox)* a hry, ktorých veková hranica je stanovená tvorcami hry nad 18 rokov *(GTA*).
Na základe interview zisťujeme, že bezprostredne počas hrania hier sa deti prevažne orientujú na obsah a dynamiku hry, preto v niektorých prípadoch deti nepoznali presný názov hry, ale boli schopné poskytnúť opis hry. Dominantou u chlapcov sú strieľacie hry, teda s násilnou tematikou, pričom sme zistili zvýšený záujem o tieto hry aj v prípade dievčat.

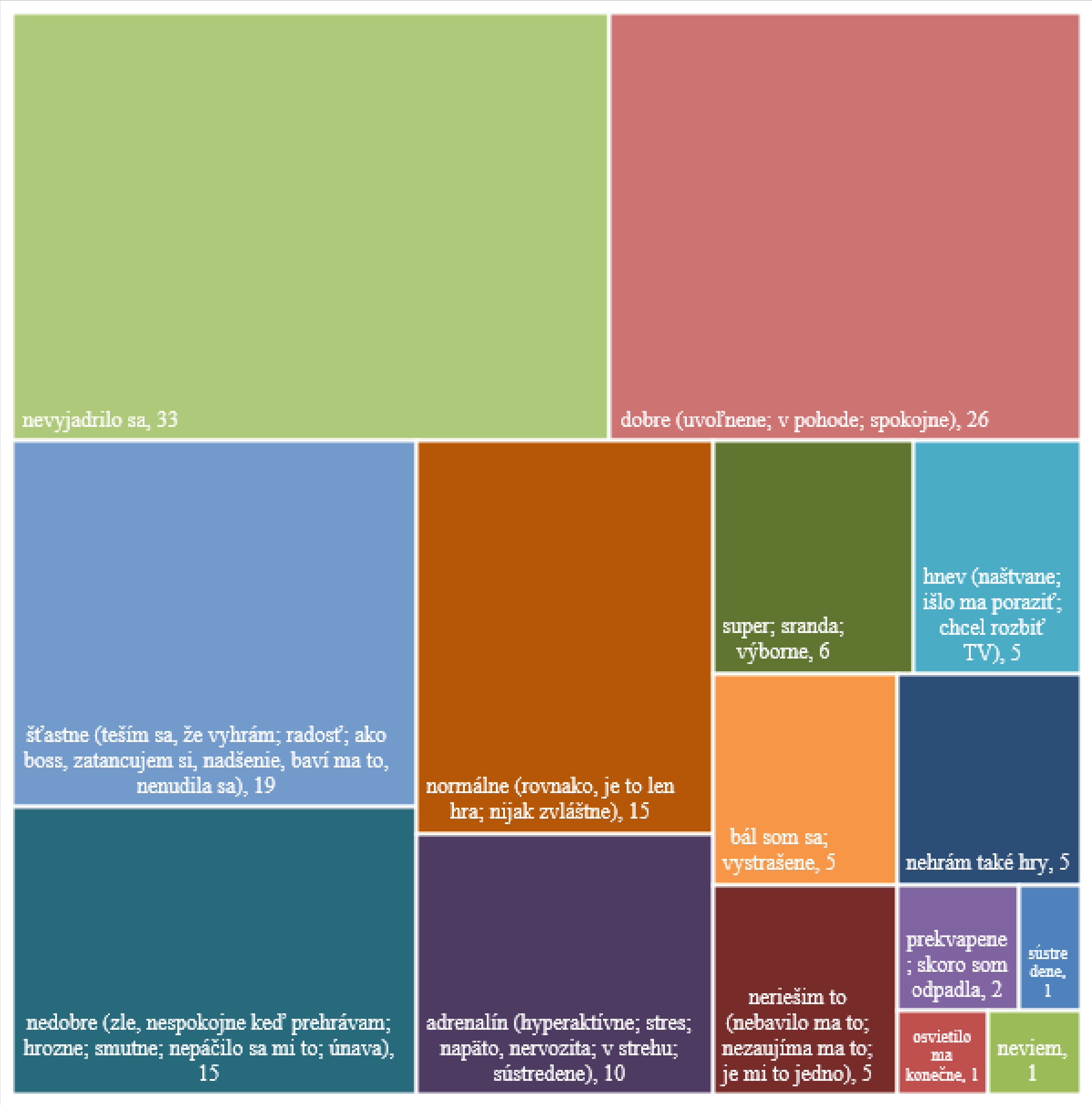
Vzhľadom na preferencie digitálnych hier u detí mladšieho školského veku a rizík spojeným s ich hraním prinášame nasledovné zistenia: V komparácii zistení záujmu detí v predošlých rokoch (Juszczyk, Karasová et al. 2017; Karasová, Koperdanová, 2021) je evidentný mierny posun záujmu o niektoré hry. Vo všetkých výskumoch boli cieľovou skupinou deti mladšieho školského veku, primárne žiaci 3. a 4. ročníka základnej školy.

Tabuľka 1: Komparácia hrania najfrekventovanejších hier u detí mladšieho školského veku

	2017	2021	2025
1.	Minecraft (creative, survival)	Minecraft (survival)	Roblox
2.	Friv	IO games (Slither.io, Agar.io, Evowars.io)	Minecraft (survival, horor mód)
3.	GTA	Roblox	Fortnite
4.	Agar.io, Slither.io	Granny	Granny
5.	Kizi land	GTA, Counter Strike	GTA

Zdroj: vlastné spracovanie podľa (Juszczyk, Karasová et al. 2017; Karasová, Koperdanová, 2021)

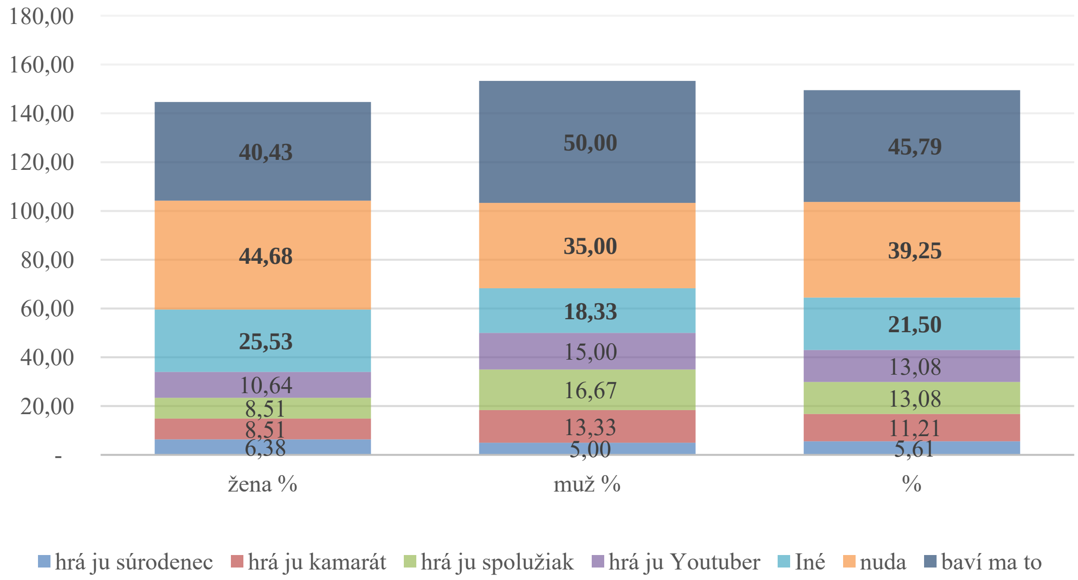
Z tabuľky je zrejmé, že napriek miernemu poklesu pretrváva záujem o hru *Minecraft*. Respondenti aktuálne prebiehajúceho výskumu uvádzali, že ich už veľmi nezaujíma základný režim hry „creative", prevláda skôr „survival" ktorý je zameraný na bojovanie so zombie, zároveň chlapci častejšie uvádzali horor mód, ktorý vedia nájsť prostredníctvom internetu. Respondenti ďalej uvádzajú, že ich na platforme *Roblox* láka hrať bojové, strieľacie a hororové hry, rovnako aj hry so sexuálnymi motívmi.
Hororovú hru *Granny* hrajú už aj deti mladšie ako 7 rokov. Napriek prestížnemu postaveniu v rovesníckej skupine sme zaznamenali aj tvrdenia respondentov, že majú strach z tmy, boja sa byť samé a nemôžu zaspať. Viacerí respondenti: žiaci štvrtého ročníka uviedli, že sa báli hororových hier ako je napríklad *Granny* v prvom ročníku základnej školy, teraz sa už neboja a vyhľadávajú práve viac hororových hier a strieľačiek.
Záujem chlapcov pretrváva o strieľacie hry, pričom zvýšenú pozornosť venujú najmä hre vhodnej od 18 rokov - *GTA*, ktorú hrajú napriek zákazu, často bez vedomia rodičov. Niektorí respondenti uviedli, že ich najviac zaujíma „striptíz bar", ktorý je súčasťou hry, okrem naháňačiek s autami a s tým spojené demolácie a násilie.
Ďalej sme zistili riziká vzhľadom na online komunitu. Na základe tvrdení respondentov je zrejmé, že sa stretávajú s ničením ich vytvorených svetov v prípade hier ako je *Minecraft* a *Roblox*, a tiež so šikanovaním na rôznych úrovniach (vyčleňovanie hráčov zo skupiny, nadávanie, ponižovanie, sabotovanie tvorby hráča a pod.). Viacerí respondenti potvrdili, že s nimi komunikoval niekto nevhodne, používal vulgarizmy, prípadne zistili, že za identitou veku primeraného hráča sa skrýva dospelý človek.
Niektorí respondenti uviedli aj hry zamerané na precvičovanie učiva, z popisu bolo zrejmé, že ide o edukačné hry, jeden respondent uviedol *Duolingo*.
V súčasnosti už nie je záujem o jednoduché hry typu *IO games*, Hoci respondenti uvádzali viaceré hry na princípe prekonávania prekážok s cieľom zbierania bodov, čím prekonajú level do určitého stanoveného limitu, tieto hry nie sú tak populárne ako hry s násilnou tematikou.
Vzhľadom na riziká hrania digitálnych hier sme ďalej zisťovali súvislosti hrania digitálnych hier a afektívnou a konatívnou stránkou osobnosti dieťaťa mladšieho školského veku. Zisťovali sme, ako sa deti mladšieho školského veku cítia počas a po hraní hry s prvkami násilia a agresie. Zistenia predstavuje nasledujúca mapa pojmov.



Obrázok 1: Sebareflexia respondentov vzhľadom na výrok: „Ako si sa cítil/a pri a po hraní digitálnej hry s prvkami násilia? (N=107)

Deti mladšieho školského veku uviedli viaceré pocity z hrania digitálnych hier a to počas hrania a bezprostredne po hraní. Tretina detí nevedela, prípadne nechcela popísať svoje pocity. Pokiaľ v hre zažívajú úspech, prejavujú radosť, uvoľnenosť, prežívajú šťastie. Akonáhle sa im nedarí, oveľa častejšie prejavujú hnev, ktorý uvoľňujú búchaním po stole a iných predmetoch, prípadne kričaním do vankúša (jedno dievča uviedlo, že kričí do vankúša preto, aby ju nepočuli rodičia, pretože nemajú radi, keď kričí, a tiež preto, aby nezistili, že hrá hru). Okrem prejavov hnevu respondenti uvádzali nepokoj, smútok, únavu, nervozitu ale aj stres, hyperaktivitu a neustálu potrebu byť v strehu.
Ďalej na základe rozhovorov a pozorovaní zisťujeme, že po hraní akejkoľvek hry (nemusí byť bezprostredne s násilným obsahom) sa u detí mladšieho školského veku prejavujú znaky hyperaktívneho správania (potreba behať, skákať, prejavovať akúkoľvek zvýšenú fyzickú aktivitu).

Vzhľadom na dôvody hrania digitálnych hier u detí mladšieho školského veku prinášame zistenia prostredníctvom Grafu 2.



Graf 2: Incentívy hrania digitálnych hier detí mladšieho školského veku vzhľadom na pohlavie (N=107)

Je evidentné, že 50% chlapcov a 40,43% dievčat hrajú hry, pretože ich to baví, a následne 44,68% žien a 35% mužov uviedlo ako motív hrania hier elimináciu nudy. Ďalej sú motívom ďalšie rôzne okolnosti. Ako dôvod hrania Youtubera, čo deti považujú za vzor, aby hru hrali tiež, uviedlo 8,51% žien a 16,67% mužov. Respondenti uvádzali, že radi sledujú YouTuberov, ako hrajú ich obľúbené hry. Taktiež sme zistili, že u 5% mužov a u 6,38 % žien je dôvod hrania hry starší súrodenec a prejavujú nadšenie, keď si ich môžu zahrať aj oni. V takýchto prípadoch sa častejšie objavujú nevhodné hry, ku ktorým sa deti mladšieho školského veku dostávajú príliš skoro.

3.2 Diskusia

Vzhľadom na preferencie hrania digitálnych hier deťmi mladšieho školského veku a rizík pôsobiacich na správanie detí sme zistili, že respondenti prejavujú najväčší záujem o hry ako sú: *Roblox*, *Minecraft, Fortnite, Granny* a *GTA.* Z uvedenej skladby hier je zrejmé, že ide o hry s prvkami násilia, hororu a sexu. Hry sú dynamické, akčné, s rozmanitými možnosťami a variabilitou. Od strieľačiek s nižším grafickým prepracovaním sa tu stretneme s hrami, ktoré majú grafiku prepracovanú do najmenších realistických detailov.

Veľmi rýchlo (približne 5 rokov) si získala prvú pozíciu platforma *Roblox*, ktorá sa spopularizovala osobitne počas pandémie Covid-19. Platforma obsahuje nespočetné množstvo neustále pribúdajúcich hier, ktoré môžu byť vytvárané nielen dospelými, ale aj deťmi. Je nutné zvážiť vhodnosť platformy pre deti mladšieho školského veku. V pedagogickej praxi sa na jednej strane stretávame s názormi rodičov, že sa vlastnou tvorbou dieťa učí programovať a do určitej miery aj tvoriť, na druhej strane je otázne do akej miery je tomu tak v skutočnosti. Vzhľadom na vyhľadávanie bojových, strieľacích hier na platforme Roblox existuje riziko, že vzory správania a prežívania situácií v reálnom živote sú poznačené zážitkami z takýchto hier. Deti sa identifikujú s fiktívnou vytvorenou postavou. Deti ďalej prejavujú morálnu otupenosť a tiež sa správajú agresívnejšie nielen pri hre ale aj pri riešení konfliktov a iných bežných situácií v živote, čo deklarovali aj učitelia.

Potvrdilo sa, že deti viac vyhľadávajú hororové hry na platforme *Roblox*. Na potenciálny negatívny dopad opakovaného konzumu strašidelno-fascinujúcich obsahov poukázala Šimšíková (2025), podľa ktorej u detí môže viesť k vyššej tolerancií voči strašidelným, morbídnym, hostilným, virtuálnym obsahom, desenzitizácii, potrebe zbierať viac intenzívne fiktívne zážitky, silnejšie podnety, alebo sa u dieťaťa v dôsledku hyperreaktivity môže spustiť túžba konzumovať obsahy pri vyhasnutí záľuby a potešenia.
V našom výskume sme sa stretli s respondentami vo veku 7 rokov, ktorí majú skúsenosť s hraním hier so sexuálnym obsahom, pričom radi fascinujú detailnými opismi z hier svojich spolužiakov. Podľa Fortim (2025), hracie platformy poskytujú sexuálny obsah, ktorý môže zahŕňať sexuálne simulácie, erotické roleplay, zmyselné animácie avatarov, kódovaný sexuálny jazyk a sexualizovaný chat. Konštatujeme, že to môže viesť k predčasnej sexualite detí.
Za riziko považujeme virtuálnu menu „*Robux*“, ktorú hráči získavajú nielen za svoje výkony v hre, ale aj kúpou vylepšení svojich avatarov a ich zbraní. Upozorňujeme, že takéto modelovanie správania predstavuje riziko vzniku konzumného správania, túžbe po statusových symboloch, dochádza k mikrotransakciám (impulzívnemu nakupovaniu), riziku závislosti, alebo aj ako uvádza Hardwick and Marcus (2025a) k finančnej negramotnosti. Podľa výskumu Hardwick et al. (2025b) s 22 deťmi vo veku 7–14 rokov tento nákupný systém môže predstavovať podvod, „cash grab“ a vedie k neúmyselnému preplateniu. Deti pociťovali zradu po nevydarenom nákupe a rodičia pocity sklamania a rodinné konflikty.
Ďalšie riziko, ktoré považujeme za zvlášť závažné je online komunita, kde sa deti v rámci multiplayer hier stretávajú s toxickým správaním: ničením ich vytvorených svetov, ako analogicky uvádzajú Ng et al. (2025), podľa ktorých prejavy vedú k znižovaniu hernej kvality, možnému psychologickému poškodeniu účastníkov. Respondenti sa ďalej stretli s formami kyberagresie, či kyberšikany akými sú: vyčleňovanie hráčov zo skupiny, nadávanie, ponižovanie, sabotovanie tvorby hráča a podobne. Podľa Zsila et al. (2022), skúsenosti so správaním ako sabotáž, vyčleňovanie, hostilná komunikácia či znevažovanie zažilo 66% (N=2097) hráčov hier. Správanie má negatívny dopad na psychofyzickú pohodu hráčov, znižuje požívateľský komfort hry a výkon tímu. Problém predstavuje aj komunikácia v online komunitách, obsahuje nevhodné slová a vulgarizmy, čo predstavuje riziko kultivovaného rečového prejavu.
Taktiež je potrebné poukázať na skutočnosť, že v čoraz nižšom veku sa deti stretávajú s predátorstvom, či zneužívaním rôzneho druhu. Medzi závažné skúsenosti respondentov patrí komunikácia s dospelými, ktorí si zvolili identitu dieťaťa, sexuálne návrhy a posielanie sexuálneho obsahu, vyhrážanie sa zabitím. Predovšetkým v prípade online hier sa deti stretávajú o oveľa väčšími rizikami ako pri offline hrách.
Vzhľadom na riziká hrania digitálnych hier sme ďalej u respondentov zistili prítomnosť negatívnych behaviorálnych a psychologických prejavov v dôsledku statického sedenia počas hrania hier kedy sa deti sústreďujú na hru (1 h a viac). Po jej ukončení dochádza zvýšenej potrebe pohybu, prejavujú sa znaky hyperaktívneho správania (potreba behať, skákať, zvýšená fyzická aktivita), ďalej narušeniu sebaregulácie (impulzívnemu správaniu po ukončení hry) a zvýšenej podráždenosti (nervozita, agresivita). Podobné prejavy boli potvrdené aj vyjadreniami učiteľov (Juszczyk, Karasová et al. 2017; Karasová, Koperdanová, 2021).
Vzhľadom na dôvody detí k hraniu digitálnych hier riziko predstavuje najčastejší motív zábava a následne eliminácia nudy. Nuda je potrebná z hľadiska podpory kreativity a fantázie. Podľa Miller et al. (2024) nuda pomáha deťom vybudovať odolnosť, schopnosť regulovať frustráciu, rozvíjať plánovanie, riešenie problémov, flexibilitu a organizáciu. Konštatujeme, že absencia okamžitej stimulácie núti mozog hľadať vlastné riešenia, čo vedie k tvorivosti. Ďalej podporuje rozvoj schopnosti sebariadenia, nakoľko sa dieťa učí samo nájsť aktivitu, čo

podporuje samostatnosť. Chvíle „ničnerobenia“ sú dôležité na mentálnu regeneráciu. Riziko okamžitej digitálnej stimulácie môže mať za následok brzdenie rozvoja trpezlivosti, pretože si dieťa zvykne na rýchle uspokojenie. Zároveň sa mozog adaptuje na krátke, intenzívne podnety (videá, hry), čo zhoršuje pozornosť v škole. Môže tiež dôjsť k obmedzeniu intrinsickej motivácie a namiesto hľadania vlastných aktivít sa bude dieťa spoliehať na externé zdroje zábavy. Časté siahanie po digitálnom zariadení tiež môže viesť k návyku na digitálnu stimuláciu. Tu upozorňujeme na neschopnosť pozitívneho trávenia voľného času u detí mladšieho školského veku.

Jedným z dôvodom hrania hier bolo sledovanie Youtuberov. Respondenti uvádzali, že radi sledujú Youtuberov, ako hrajú ich obľúbené hry, preto predpokladáme, že deti mladšieho školského veku si najskôr zahrajú hru a následne vyhľadávajú Youtuberov, ktorí im sprostredkujú herné grify, herné stratégie. To súhlasí so zisteniami Van Kessel et al. (2019), ktorí uvádzajú, že herný obsah patrí medzi najsledovanejšie kategórie na YouTube pre deti do 13 rokov. Herné kanály s detskými alebo priateľskými YouTubermi majú vysokú sledovanosť. Podľa Jarecke-Cheng (2023) záujem detí o sledovanie herných YouTuberov je podobný sledovaniu akéhokoľvek iného športu. Pre digitálne generácie predstavuje zábavu a poučenie. Zdieľanie zážitkov so spoločnými záujmami rezonuje na emocionálnej úrovni.

Záujem detí je značný, keď ide o nepoznané, rastie najmä silou sociálneho vplyvu, rovesníckeho pôsobenia, ktorý sa zvlášť ukazuje u tretiakov a štvrtákov. Deti nechcú byť horšie, zaostávať voči ostatným. Väčšinou sú v triede dominantní niekoľkí hráči, ktorí prinášajú neustále nové informácie o hrách, čo podnecuje k hraniu aj ostatných rovesníkov.

4 ZÁVER

Za posledných 10 rokov skúmania môžeme pozorovať tendencie znižovania vekovej hranice, kedy deti prvýkrát hrajú digitálne hry. Zároveň sa znižuje veková hranica hrania digitálnych hier nevhodných pre vekovú kategóriu detí mladšieho školského veku. Hry, o ktoré deti prejavujú záujem, sú prevažne strieľacie, násilné a hororové. Hranie takýchto hier prináša viac rizík ako výhod. Hranie digitálnych hier s prvkami agresie a násilia sa prejavuje na ich správaní. Vzhľadom na vek, deti preberajú vzorce správania sa z danej hry. Deti mladšieho školského veku sa v rámci multiplayer módov stretávajú tiež s kyberagresiou a nevhodnou komunikáciou. Primárnymi motívmi hrania hier je zábava, eliminácia nudy, herní YouTuberi. V prípade detí je nutná regulácia hier nie iba z časového hľadiska, čo nám potvrdili nie len rodičia ale i deti, ale najmä z obsahového.

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EDUCATIONAL AND FORMATIVE POTENTIAL OF POPULAR SONGS IN EARLY CHILDHOOD

Dominika Sondorová

Abstract

The paper describes the educational and formative potential of popular songs in the context of early childhood, focusing on their role in shaping the personality predispositions of preschool-aged children. Based on a review of relevant scholarly literature, it evaluates their potential to affect cognitive, emotional, and behavioral development, as well as the shaping of value orientations. It also identifies risks associated with inappropriate content that may adversely impact the child's psychological and social development. The findings suggest that pedagogically guided and purposefully implemented integration of popular music into the educational environment can foster positive developmental tendencies, whereas the absence of a qualitative selection of repertoire may diminish the formative and educational potential of musical experience.

Keywords: *child, preschool age, popular song*

1 INTRODUCTION

Preschool age represents a crucial developmental period during which the fundamental components of a child's personality – cognitive, emotional, social, and motor abilities – are formed most intensively. At this stage, music, and particularly children's popular songs, plays an indispensable role, as it naturally integrates rhythm, melody, lyrics, and movement into a complex experience that engages the child on multiple levels simultaneously. Empirical research confirms that musical stimuli activate brain regions associated with memory, attention, and language development, while the repetition of simple melodic–rhythmic structures supports vocabulary acquisition and fosters phonemic awareness (Lu, Shi, Musib, 2024). Music also functions as an effective tool of emotional education, as songs help children recognize and label basic emotions, thereby promoting emotional regulation and the ability to express feelings appropriately (Koníčková, 2023). Moreover, group-based musical activities demonstrably strengthen social bonds, synchronization, and prosocial behaviour, contributing to the development of social competence and collaboration skills (Lu, Shi, Musib, 2024). The motor dimension of music activities is equally significant – singing children's songs is often accompanied by clapping, movement, or playing simple rhythm instruments, which supports psychomotor development, coordination, and both fine and gross motor skills (Derevjaníková – Dzurilla, 2014). Popular songs thus represent not only an artistic medium but also an effective pedagogical tool that fosters the harmonious development of the child's personality while simultaneously shaping a positive relationship to music, culture, and values from early childhood.

2 THE ROLE OF POPULAR MUSIC IN SHAPING THE PERSONALITY COMPONENTS OF PRESCHOOL CHILDREN

The personality of a preschool-aged child comprises a complex interplay of physical, psychological, and social components, which are dynamically formed and shape further development. The physical dimension includes bodily dispositions, health status, and motor abilities. The psychological dimension is associated with cognitive processes, emotions, and temperament, which are particularly intense and variable during this period. The social dimension is manifested in the ability to establish relationships with peers as well as adults.

Preschool age is characterized by significant development of cognitive processes. Perception is global and syncretic, meaning that the child processes phenomena as wholes and experiences music as an emotional and aesthetic event rather than analytically. Emotional responses are spontaneous and intense, self-evaluation is high but unstable, and strongly influenced by feedback from adults (Bízová, 2010).

Popular songs as a stimulator of cognitive abilities in preschool children

Music, and particularly children's popular songs, represents a significant stimulatory factor in the cognitive development of preschool-aged children. Empirical studies confirm that musical activities related to singing and active acquisition of songs positively influence executive functions, particularly inhibitory control, working memory, and cognitive flexibility (Lu, Shi, Musib, 2024). Children's popular songs, characterized by simple melodies, rhythms, and frequent repetition, provide preschoolers with a structured musical stimulus that is both easily comprehensible and sufficiently engaging. Singing and rhythmically repeating lyrics expand vocabulary, support the acquisition of correct pronunciation and grammatical structures, and enhance phonological awareness, which is a crucial prerequisite for successful reading and writing development (Koníčková, 2023). Research also indicates that systematic musical activities, including regular singing of popular songs, can have effects on phonological skill development comparable to specialized language interventions, particularly in processing larger phonological units (Degé & Schwarzer, 2011). The rhythmic structure of these songs further facilitates the acquisition of intonation and stress patterns, thereby supporting more effective language learning (MyBrightWheel, 2023).

An important mechanism through which popular songs promote cognitive development is attention. Selective attention allows children to process recurring musical motifs, store them in working memory, and transfer them to long-term memory, optimizing learning processes (Duchovičová & Lazíková, 2008). Musical memory, closely linked to the rhythm and repetition typical of popular songs, develops concurrently. Children more easily memorize choruses and simple rhythmic patterns characteristic of popular songs. Rhythmic memory has been shown to be more robust than melodic memory, with children from approximately six years of age able to retain and reproduce more complex musical sequences.

Children's popular songs also stimulate creativity and imagination through simple lyrics and stories that children interpret and transform into their own mental images. This process fosters creative thinking, abstract reasoning, and pattern recognition, all of which are essential for intellectual growth (Hallam, 2010). Moreover, working with song content allows children to form "preconcepts"—intuitive, experience-based understandings of the world that serve as a foundation for further cognitive development (Duchovičová & Lazíková, 2008).

Overall, children's popular songs influence cognitive development in multiple ways: they enhance executive functions, support language development and phonological awareness, stimulate memory and attention, and simultaneously foster creativity and abstract thinking skills.

Children's popular songs as a tool for emotional stimulation and regulation of preschool children

Children's popular songs represent a significant means of emotional stimulation and regulation in the preschool period, as they combine musical simplicity with comprehensible lyrics and straightforward rhythmic-melodic structures. Compared to other musical forms, their affective impact is more immediate—children respond to fast tempos and cheerful melodies with increased activity and joy, whereas slower, calmer pieces induce relaxation and focus. In this way, songs become a tool through which children learn to recognize,

differentiate, and express their own emotions, thereby fostering the development of emotional intelligence and foundational skills for emotional regulation (Lucas, 2019).
The lyrics of children’s songs play a crucial role in emotional development, often containing narrative and situational elements. These provide children with models for naming and processing emotional states, for example, through joyful stories about friendship or songs describing sadness and loss. In this way, songs serve as a medium through which children learn not only to identify emotions but also to express them appropriately in social contexts. Emotional bonds formed with popular songs through repeated listening and performance contribute to their emotional stability and the ability to regulate affective states (Hallam, 2010).
Another important aspect of children’s popular songs is their collective nature. Group singing in preschool settings or family environments creates opportunities for social learning, cooperation, and shared emotional experiences. Synchronization of rhythm and melody enhances interpersonal connection and a sense of belonging, while children gain experiences of empathy, shared joy, and mutual encouragement (Learningpotential, 2020).
Popular songs thus serve not only aesthetic and recreational functions but also act as tools for fostering emotional maturity. Their impact is reflected in children’s ability to process emotions through music, strengthen emotional stability, and prepare for the demands of the school environment, where self-regulation and emotional intelligence are key prerequisites for successful adaptation (Tancsáková).

Children's popular songs as a means of supporting psychomotor development

In the context of psychomotor development, children’s popular songs hold a specific significance, as they integrate music, movement, and social interaction into a unified experience. Simple melodies and rhythmic patterns motivate children to engage in spontaneous motor expressions, which may take the form of dance, gestures, movement games, or playing simple musical instruments. These activities stimulate coordination, movement synchronisation, and the development of both fine and gross motor skills. Regular clapping, stomping, or manipulation of rhythmic instruments enhances dexterity and the precision of motor responses, thereby creating a solid foundation for subsequent motor development.
A key aspect is the development of rhythmic perception, which is closely linked to cognitive functions and the temporal organisation of behaviour. Popular songs with clear refrains and regular rhythmic structures help children acquire and reproduce rhythmic patterns more easily, maintain tempo, and improve auditory discrimination. Rhythmic training simultaneously supports movement coordination, attention, and memory—abilities essential for school readiness (Lu, Shi, Musib, 2024).
Children’s popular songs also exert a motivational effect: through their simple melodies and appealing lyrics, they sustain the child’s attention, encourage active participation in music-movement activities, and increase intrinsic motivation to repeat the task. Through collective singing and coordinated movement, children not only internalise motor patterns but also develop social competencies such as cooperation, turn-taking, and adherence to group rules (Lucas, 2019).
Children’s popular songs thus represent an effective means of comprehensive psychomotor stimulation, as they integrate musical, motor, and social dimensions, thereby strengthening not only motor skills but also the child’s emotional stability and cognitive growth (Juščáková & Fridman, 2020).

Social development of children in the context of collective musical activities with popular songs

Popular children's songs significantly contribute to the social development of preschool-aged children through group activities and shared musical experiences. Singing in a collective creates a natural environment for the development of social skills, as it requires mutual listening, coordination, turn-taking, and cooperation within a safe and structured setting. These activities strengthen the sense of belonging and support the child's ability to connect with peers. The lyrics of popular songs, which often address themes such as friendship, family, nature, or adventure, foster empathy and the formation of emotional bonds. Research indicates that children are more inclined to socialize and build relationships with individuals who sing or dance with them to familiar songs, thereby enhancing their social competence. Within a community context, music functions as a powerful social and emotional stimulus that enables children to build connections not only with educators but also with new members of the group. This socializing dimension of music is essential in early development, as it supports the formation of neural pathways that are crucial for future social interaction and competence (MyBrightWheel, 2023).

The influence of popular children's songs on the formation of moral attitudes and character tendencies

Popular children's songs also play an important educational and ethical role in shaping children's moral profile. The lyrics often contain stories with a clear value or moral message that teach children basic social norms and rules of behavior. Songs emphasizing the use of polite expressions, the importance of respect, gratitude, or solidarity contribute to the gradual internalization of basic values and the development of prosocial behavior (MyBrightWheel, 2023). Musical activities also influence the formation of character traits. Singing as a natural form of self-expression strengthens emotional openness, while regular musical activity promotes perseverance, discipline, and the ability to concentrate, which are key qualities for later life (Lu, Shi, Musib, 2024).

The aesthetic dimension of popular children's songs is also significant, as it shapes children's musical taste and cultural sensitivity. High-quality musical and aesthetic experiences in preschool age develop sensitivity to artistic expression and contribute to the formation of a lasting relationship with cultural values. The aesthetic function of music thus enriches overall personality development and can have a long-term impact on the formation of life preferences and values (Koníčková, 2023).

Negative consequences of inappropriate content in popular songs on the moral and value development of children

Music has a significant influence on the formation of a child's personality; however, not all musical stimuli exert a positive effect. The quality and content of music are decisive factors that shape healthy personality development in both preschool and early school-aged children. Inappropriate music, particularly aggressive productions with vulgar lyrics, loses its aesthetic and educational function. Instead of cultivating emotional and value-based systems, such music may induce desensitization, increase impulsivity, and reinforce tendencies toward aggressive behavior. Contemporary music aimed primarily at adolescents is often characterized by high sound intensity and perceptual simplicity, which, while facilitating passive reception, limits the need for active interpretation by children. This type of music suppresses creativity and the child's natural individual expression, potentially encouraging imitation of aggressive patterns, premature displays of maturity, and conflict-prone behaviors. Consequently, both the aesthetic and educational functions of music, as well as its positive influence on personality and emotional development, are diminished (Koníčková, 2023).

Research confirms that children regularly exposed to aggressive music tend to exhibit hyperactive behavior, reduced concentration, and more frequent attention deficits. Negative effects are also associated with high levels of acoustic load, where excessive decibels pose health risks impacting hearing function and overall psychological well-being. This so-called "musical smog," often mistakenly perceived as part of high-quality musical production, does not contribute to positive personality development and may have a destructive effect on the child's value system.
Therefore, it is crucial to guide children systematically and gently toward a valuable musical repertoire appropriate to their age and developmental stage. Song selection should adhere to principles of aesthetic education, emphasizing musical works that combine simplicity with artistic quality, thereby fostering emotional sensitivity, cognitive skills, and social competence. High-quality children's popular songs thus serve not only as a medium for artistic and motor expression but also as a significant protective factor against the negative effects of mass-produced music (Pirníková, 2009).

3 CONCLUSION

Popular songs represent a significant educational tool with the capacity to influence all dimensions of personality development in preschool-aged children. In the cognitive domain, their impact is observed primarily through the stimulation of executive functions, enhancement of phonological awareness, and support of language competencies, which constitute a key foundation for later academic success. In the affective domain, music facilitates emotional regulation, fosters empathy, and cultivates aesthetic perception, thereby contributing to the development of emotional maturity. Social development is simultaneously promoted through collective musical experiences, which aid in building interpersonal bonds and establishing neural structures essential for complex social competencies.
Despite these benefits, it is important to acknowledge that not all forms of popular music exert positive effects. Inappropriate selections, characterized by excessive acoustic load or unsuitable lyrical content, may disrupt natural personality development. Consequently, careful repertoire selection emphasizing high-quality, age-appropriate musical works is recommended. Empirical evidence further suggests that optimal impact on harmonious development can be achieved through regular musical engagement, with a frequency of at least three sessions per week, each lasting approximately 40 minutes. Such a structured approach provides a systematic framework that significantly contributes to the development of cognitive, emotional, social, and psychomotor skills, thereby laying a solid foundation for the child's future educational and personal growth.

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NEURORÓŻNORODNOŚĆ JAKO PERSPEKTYWA W PORADNICTWIE PSYCHOLOGICZNYM

NEURODIVERSITY AS A PERSPECTIVE IN PSYCHOLOGICAL COUNSELING

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Abstract

Artykuł analizuje koncepcję neuroróżnorodności jako kluczową zmianę paradygmatu w poradnictwie psychologicznym. Autorka wskazuje na odchodzenie od tradycyjnego modelu medycznego, skupionego na patologizacji i „naprawie" deficytów, w stronę modelu biopsychospołecznego (BPS) oraz podejścia afirmatywnego American Psychological Association (APA). W tekście omówiono taksonomię neuromniejszości, znaczenie języka inkluzywnego i praktyczne implikacje dla pracy w gabinecie, takie jak formułowanie psychologiczne zamiast sztywnego etykietowania, dostosowania sensoryczne oraz praca z mechanizmem maskowania. podkreśla, że zrozumienie unikalnych profili poznawczych (np. autystycznego wzorca funkcjonowania – AWF) pozwala na budowanie sojuszu z klientem i wspieranie jego dobrostanu w świecie niedostosowanym do neurodywergencji.

Keywords: *neuroróznorodność, neurodywergencja, zmiana paradygmatu, podejście afirmatywne, model biopsychospołeczny, poradnictwo psychologiczne*

Abstract

This article examines neurodiversity as a key paradigm shift in psychological counseling. The author points to a shift away from the traditional medical model, which focuses on pathologizing and "repairing" deficits, toward the biopsychosocial model (BPS) and the affirmative approach endorsed by the American Psychological Association (APA). The text discusses the taxonomy of neurominorities, the importance of inclusive language, and practical implications for practice, including psychological framing rather than rigid labeling, sensory adaptations, and working with the mechanism of masking. It emphasizes that understanding unique cognitive profiles (e.g., autistic pattern of functioning – AWF) enables the development of an alliance with the client and supports their well-being in a world not adapted to neurodivergence.

Keywords: *neurodiversity, neurodivergence, paradigm shift, affirmative approach, biopsychosocial model, psychological counseling*

1 WPROWADZENIE

„Neurodiversity" (po polsku: neuro-różnorodność, neurodywergencja) to koncepcja i ruch społeczny, który traktuje różnice w funkcjonowaniu mózgu — np. autyzm, ADHD, dysleksję, zaburzenia przetwarzania sensorycznego, zespół la Tourette'a czy inne profile poznawcze — jako naturalne warianty ludzkiej różnorodności, a nie wyłącznie jako patologię wymagającą „naprawy". Innymi słowy: różne sposoby myślenia i przetwarzania informacji są częścią ludzkiego spektrum, a nie tylko deficytem. W praktyce oznacza to kilka kluczowych konsekwencji, z ktorych trzy wydają się nawjażniejsze. Dotyczą one następujących aspektów:
1. *Paradigm shift*: Przejście od medycznego modelu (gdzie skupiamy się głównie na deficytach i leczeniu) do społeczno-prawnego/rozwojowego modelu, który podkreśla

potrzeby, mocne strony i bariery środowiskowe. 2. *Język i tożsamość*: Wśród niektórych osób preferowane jest „identity-first" (np. „I'm autistic"), bo autyzm jest dla nich integralną częścią tożsamości; inne osoby wolą „person-first" („person with autism"). Ważne jest respektowanie preferencji jednostki i 3. *Środowiskowe rozwiązania*: Zamiast tylko terapii indywidualnej — adaptacje w edukacji, miejscu pracy, dostępności sensorycznej, komunikacji.

Przegląd koncepcyjny opisujący przesunięcie paradygmatu na podejście neurodywersyjne, autorstwa E. Pellicano i J. Den Houting (2021) stanowi użyteczną podstawę teoretyczną do argumentacji za neuroaffirmatywną praktyką w poradnictwie i psychoterapii. W Polsce pojawiły się już opracowania wychodzące naprzeciw temu nowemu podejściu. Np. W opracowaniu monograficznym na temat autyzmu, traktującym zagadnienie w sposób kompleksowy: *Zaburzenie ze spektrum autyzmu. Od diagnostyki po odpowiednie postępowanie (*Janas-Kozik, Wilczyński (red.) 2024), pierwszy rozdział poświęcony jest pojęciu i perspektywie neuroróżnorodności. Zbiorowy artykuł polski zawierający praktyczne rekomendacje dla terapeutycznej pracy z dorosłymi z ASD, w całości przyjmuje perspektywę neuroafirmatywną (Dobiała, Stefańska-Klar i in. 2021). Wsparcie merytoryczne w języku polskim, spójne z powyższymi nurtami, znajdziemy również w innych opracowaniach polskich (por. Płatos (red.) 2018).

2 NEURORÓŻNORODNOŚĆ JAKO NOWA PERSPEKTYWA W NAUCE I PRAKTYCE

2.1. Model neurorożnorodności promowany przez BPS

Model neuroróżnorodności promowany przez Brytyjskie Towarzystwo Psychologiczne (British Psychological Society – BPS) opiera się na odejściu od czysto biomedycznego postrzegania różnic w funkcjonowaniu mózgu (jako „zaburzeń" do naprawienia) na rzecz modelu biopsychospołecznego.

Poniżej znajdziesz kluczowe założenia tego podejścia oraz strukturę taksonomii, którą BPS często przywołuje w swoich publikacjach.

1. Filary modelu BPS

W przeciwieństwie do tradycyjnej psychiatrii, BPS kładzie nacisk na trzy współpracujące ze sobą obszary, które pozwalają zrozumieć osobę neuroróżnorodną:

- **Domena biologiczna:** Uznaje naturalne różnice w strukturze i chemii mózgu (np. genetyczne uwarunkowania ADHD czy autyzmu).
- **Domena psychologiczna:** Skupia się na przekonaniach jednostki, jej tożsamości, mechanizmach radzenia sobie oraz unikalnych profilach poznawczych (np. wysokiej kreatywności przy jednoczesnych trudnościach z pamięcią operacyjną).
- **Domena społeczna:** Analizuje, jak otoczenie (szkoła, praca, społeczeństwo) wpływa na funkcjonowanie osoby. Model ten zakłada, że „niepełnosprawność" często wynika z niedopasowania środowiska do potrzeb jednostki, a nie z samego faktu bycia innym.

2. Taksonomia czterech grup (Podział na neuromniejszości)

BPS proponuje klasyfikację, która pomaga uporządkować dyskusję o neuroróżnorodności, dzieląc ją na cztery główne kategorie:

Tabela 1. Cztery grupy mniejszości neurodywergentnych wg BPS

Domena (kategoria)	Opis	Przykłady
Kliniczna	Tradycyjne diagnozy neurorozwojowe.	Autyzm, ADHD, Tourette.

Edukacyjna	Trudności związane z konkretnymi umiejętnościami nauki.	Dysleksja, dyskalkulia, dysgrafia.
Nabyta	Zmiany w funkcjonowaniu wynikające z czynników zewnętrznych.	Urazy mózgu (TBI), udary.
Zdrowie psychiczne	Stany wpływające na percepcję i przetwarzanie danych.	ChAD (choroba afektywna dwubiegunowa), OCD, schizofrenia.

Oprac. własne

3. Kluczowe zasady podejścia BPS

- **Podejście oparte na mocnych stronach (Strengths-based approach):** Zamiast pytać „Co jest z tobą nie tak?", psycholodzy pytają „W czym jesteś dobry i jakiego wsparcia potrzebujesz?".
- **Formułowanie zamiast etykietowania:** BPS zachęca do tzw. *formułowania psychologicznego*, czyli opisywania konkretnych potrzeb i kontekstu życia danej osoby, zamiast polegania wyłącznie na suchej diagnozie z klasyfikacji ICD czy DSM.
- **Inkluzywność w miejscu pracy:** Model ten jest szeroko stosowany w psychologii pracy (Occupational Psychology), promując „rozsądne dostosowania" (reasonable adjustments), takie jak elastyczny czas pracy czy ciche pokoje, które pozwalają wykorzystać potencjał osób neuroatypowych.

Według szacunków przytaczanych przez BPS, osoby należące do tzw. neuromniejszości stanowią od **15% do 20%** populacji.

2.2. Stanowiska innych organizacji zrzeszających psychologów i psychoterapeutów

Przejście na model neuroróżnorodności jest procesem globalnym, choć każda z wymienionych przez Ciebie organizacji znajduje się na nieco innym etapie tego procesu. Poniżej przedstawiam zestawienie stanowisk APA oraz polskich towarzystw (PTP i PTP-psychiatrycznego).

1. American Psychological Association (APA)

APA jest obecnie jedną z najbardziej progresywnych organizacji w tym zakresie, silnie ewoluując w stronę modelu afirmatywnego (Neurodiversity-Affirming).

- **Stanowisko:** APA oficjalnie uznaje neuroróżnorodność za istotny element **różnorodności ludzkiej** (podobnie jak rasa, płeć czy orientacja). W ostatnich latach organizacja ta kładzie ogromny nacisk na to, by psycholodzy unikali patologizacji cech neuroatypowych.
- **Kluczowe działania:**
  a) Wprowadzenie wytycznych dotyczących **języka inkluzywnego** (np. zalecanie używania języka tożsamościowego „osoba autystyczna" obok języka zorientowanego na osobę „osoba z autyzmem", zależnie od preferencji klienta).
  b) Publikacja standardów pracy z osobami neuroróżnorodnymi, które skupiają się na **poprawie jakości życia**, a nie na eliminowaniu zachowań (np. krytyka terapii dążących do wymuszonego maskowania).
  c) Promowanie modelu **traumy mniejszościowej** jako wyjaśnienia dla problemów ze zdrowiem psychicznym u osób neuroatypowych.

2. Polskie Towarzystwo Psychologiczne (PTP)
W Polsce proces ten jest mniej sformalizowany (brak jednego, centralnego dokumentu "stanowiska" na wzór BPS), ale widoczna jest wyraźna zmiana kierunku.

- **Stanowisko:** PTP opiera się na Kodeksie Etyczno-Zawodowym, który nakazuje szacunek dla godności i autonomii każdego człowieka. Choć w oficjalnych dokumentach PTP wciąż dominuje język kliniczny (zgodny z klasyfikacjami ICD/DSM), sekcje tematyczne i lokalne oddziały coraz częściej organizują szkolenia z zakresu **podejścia afirmatywnego**.
- **Praktyka:** PTP coraz silniej promuje standardy diagnostyczne, które są **podmiotowe**. Istnieje silny ruch wewnątrz towarzystwa (szczególnie w obszarze psychologii edukacyjnej i dziecięcej), który dąży do odejścia od „orzecznictwa o niepełnosprawności" na rzecz „oceny funkcjonalnej" (zgodnie z modelem ICF).

3. Polskie Towarzystwo Psychiatryczne (PTP-psychiatryczne)
Tutaj podejście jest najbardziej zakorzenione w **modelu medycznym**, co wynika ze specyfiki psychiatrii jako dziedziny medycyny, ale również tu zachodzą zmiany.

- **Stanowisko:** Oficjalnie PTP (psychiatryczne) posługuje się klasyfikacją **ICD-11**, która dokonała rewolucji, wprowadzając m.in. pojęcie „Spektrum Autyzmu" (zamiast Zespołu Aspergera).
- **Ewolucja:** Sekcje Dziecięce i Młodzieżowe PTP coraz częściej podkreślają, że diagnoza ADHD czy ASD to nie tylko „zespół objawów", ale **inny profil rozwoju**. Polscy psychiatrzy coraz częściej mówią o potrzebie wsparcia środowiskowego, a nie tylko farmakologicznego. Jednak model neuroróżnorodności jako koncepcja społeczna jest tu traktowany raczej jako uzupełnienie diagnozy medycznej niż jej zastępstwo.

Tabela nr 2 pozwala na porównanie podejść różnych organizacji zrzeszających psychologów i psychoterapeutów w kontekście neuroróżnorodności

Tabela 2. Stanowiska organizacji polskich i zagranicznych uwzględniających neurorożnorodność

Organizacja	Główny Model	Kluczowy akcent
BPS (UK)	Biopsychospołeczny	Formułowanie (przypadku)zamiast diagnozy, zmiana społeczna.
APA (USA)	Afirmatywny	Prawa obywatelskie, język inkluzywny, trauma mniejszościowa.
PTP (PL)	Rozwojowo-humanistyczny	Podmiotowość klienta, ocena funkcjonalna.
PTP Psychiatryczne (PL)	Kliniczno-medyczny	Klasyfikacja ICD-11, neurorozwojowość, farmakoterapia.

Oprac. własne

Dla osób prowadzących poradnictwo psychologiczne (counseling) oznacza to, że mogą one bezpiecznie powoływać się na APA jako standard światowy w zakresie etyki i języka, oraz na BPS w zakresie metodologii pracy (formułowanie psychologiczne). Polskie towarzystwa dają im dodatkowo bazę etyczną, choć obecnie to standardy brytyjskie i amerykańskie dostarczają dziś najbardziej konkretnych narzędzi do pracy afirmatywnej.

2.3. Dokumenty źródłowe dla zmian w paradygmacie w kierunku neuroróżnorodności

1. Model Neuroróżnorodności i Taksonomia (BPS)
Te pozycje potwierdzają przejście z modelu medycznego na biopsychospołeczny i klasyfikację neuromniejszości.

- **British Psychological Society (2023).** *Neurodiversity at Work: Guidance for Occupational Psychologists*. Leicester: BPS. (Kluczowy dokument definiujący model 4 grup).
- **British Psychological Society (2014).** *Clinical Psychology and the Medical Model: A survey of DCP members' views*. (Podstawa krytyki czysto medycznego podejścia).
- **Walker, N. (2021).** *Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities*. Autonomous Press. (Teoretyczne ugruntowanie paradygmatu neuroróżnorodności).

2. Formułowanie psychologiczne (Zamiast diagnozy)
Literatura wspierająca odejście od etykietowania na rzecz opisu funkcjonalnego.

- **Johnstone, L., & Dallos, R. (2013).** *Formulation in Psychology and Psychotherapy: Making sense of people's problems*. Routledge. (Fundamentalna praca o tzw. "formulation" promowanym przez BPS).
- **Johnstone, L., et al. (2018).** *The Power Threat Meaning Framework: Towards the identification of patterns in emotional distress, unusual experiences and troubled or troubling behaviour, as an alternative to functional psychiatric diagnosis*. Leicester: BPS.

3. Stanowiska Organizacji (APA, PTP i WHO)
Dokumenty potwierdzające afirmatywny kierunek zmian.

- **American Psychological Association (2022).** *Inclusive Language Guide*. (Zasady dotyczące języka tożsamościowego i afirmatywnego).
- **Polskie Towarzystwo Psychologiczne (2017).** *Kodeks Etyczno-Zawodowy Psychologa*. (Podstawa podmiotowości i autonomii klienta w polskim prawie).
- **World Health Organization (2019).** *International Classification of Diseases for Mortality and Morbidity Statistics (11th Revision)*. (Źródło zmian w nazewnictwie spektrum autyzmu i ADHD).

3 ZASTOSOWANIE POJĘCIA NEURORÓZNORODNOŚCI W PORADNICTWIE PSYCHOLOGICZNYM

Wprowadzenie modelu neuroróżnorodności do poradnictwa psychologicznego (counselingu) wymaga przejścia od roli „eksperta, który wie i poucza, a czasem również leczy” do roli „sojusznika, który wspiera w autentyczności”. Według wytycznych BPS, kluczem jest zrozumienie, że wiele trudności zgłaszanych przez klientów (lęk, depresja, niskie poczucie własnej wartości) to wtórne skutki życia w świecie niedostosowanym do ich profilu neurologicznego (trauma mniejszościowa).

Oto jak można uwzględnić tę perspektywę w swojej praktyce:

1. Praca na mocnych stronach (Strengths-based assessment)
Zamiast skupiać się wyłącznie na deficytach (trudnościach z koncentracją czy komunikacją), warto rozpocząć od identyfikacji unikalnych zasobów klienta.

Pytajmy o "Flow": *W jakich momentach klient traci poczucie czasu? Czy ma specjalistyczne pasje?*
Walidacja różnorodności: Pomóżmy klientowi zrozumieć, że jego mózg nie jest „zepsuty", ale działa na innym „systemie operacyjnym". To często kluczowy moment terapeutyczny, który zdejmuje z klienta ogromne poczucie winy.

2. Dostosowanie ram sesji (The Setting)
Standardowe ustawienie gabinetu może być dla osób neuroatypowych barierą. Bądźmy elastyczni:
Bodźce sensoryczne: Zapytaj na początku: „Czy światło nie jest za mocne? Czy ten zapach świecy Ci nie przeszkadza?". Pozwól klientowi używać gadżetów do stymulacji (fidget toys) lub unikać kontaktu wzrokowego, jeśli ułatwia mu to mówienie.
Czas i struktura: Niektóre osoby neuroatypowe potrzebują bardzo jasnej agendy sesji, inne z kolei mają trudności z punktualnością ze względu na „ślepotę czasową" (time blindness). Podejdź do tego z ciekawością, a nie oceną.

3. Język i Formułowanie (Psychological Formulation)
BPS promuje psychologiczne formułowanie zamiast sztywnej diagnozy. Zamiast mówić: „Masz fobię społeczną", możesmy sformułować to tak:
„Twoje doświadczenia sensoryczne sprawiają, że zatłoczone miejsca są dla Ciebie wyczerpujące, co naturalnie powoduje lęk przed wychodzeniem. To nie jest fobia, to Twoja reakcja na przeciążenie bodźcami".

4. Praca z "Maskowaniem" (Masking)
Maskowanie to proces, w którym osoby neuroatypowe (szczególnie kobiety w spektrum autyzmu) świadomie lub nieświadomie ukrywają swoje cechy, by dopasować się do społeczeństwa.
Cena maskowania: W pracy counselingowej ważne jest nazwanie kosztów maskowania: ogromnego zmęczenia, lęku i utraty tożsamości.
Cel terapii: Często celem nie jest „nauczenie klienta lepszych umiejętności społecznych", ale pomoc w odmaskowaniu (unmasking) i akceptacji siebie.

Tabela 3. Praktyczne techniki i dostosowania w gabinecie:

Obszar	Rozwiązania praktyczne
Komunikacja	Używaj konkretnego języka. Unikaj metafor, jeśli klient ma trudności z ich odczytaniem.
Przerwy	Zaproponuj krótkie przerwy na „reset sensoryczny" w trakcie dłuższych sesji.
Wsparcie wizualne	Rysuj schematy, używaj tablicy, przesyłaj podsumowania sesji w punktach (pomaga w pracy z ADHD/dysleksją).
Psychoedukacja	Polecaj materiały tworzone przez osoby neuroróżnorodne (podejście *Nothing about us without us*).

Oprac. własne

Etapy wdrażania w podejścia afirmatywnego wobec neuroróżnorodności w pracy psychologa:

1. Audyt gabinetu: Sprawdzamy, czy nasza przestrzeń jest „przyjazna sensorycznie".
2. Zmiana formularza zapisu: Dodajmy pytanie: *„Czy masz jakieś specyficzne potrzeby sensoryczne lub komunikacyjne, o których powinnam/powinienem wiedzieć?".*
3. Superwizja: Szukajmy superwizorów, którzy pracują w modelu neuroróżnorodności, a nie tylko w modelu medycznym.

4 TERMINOLOGIA AFIRMATYWNA

Wybór odpowiednich słów ma ogromne znaczenie – język, którego używamy, kształtuje to, jak klient postrzega samego siebie. W modelu afirmatywnym (zgodnym z BPS i APA) odchodzimy od języka medycznego na rzecz języka opisowego i tożsamościowego.
Oto zestawienie terminologii, która pomoże psychologowi zachować spójność z modelem neuroróżnorodności w języku polskim:

Tabela 4. Słowniczek terminologii afirmatywnej

Termin tradycyjny (medyczny)	Termin afirmatywny (wspierający)	Dlaczego to ważne?
Zaburzenie (np. zaburzenia ze spektrum autyzmu)	Neuroróżnorodność / Różnica / Cecha/ Wzorzec[1]	„Zaburzenie" sugeruje coś, co trzeba naprawić. „Różnica" wskazuje na unikalny profil poznawczy.
Objawy / Symptomy	Cechy / Charakterystyka / Potrzeby	„Objawy" kojarzą się z chorobą. „Cechy" to stałe elementy tożsamości osoby.
Deficyty (np. w komunikacji)	Różnice w stylu komunikacji / Wyzwania	Model BPS podkreśla, że trudność wynika z niedopasowania stylów, a nie braku umiejętności u jednostki.
Wysoko-/niskofunkcjonujący	Zróżnicowane potrzeby wsparcia	Etykiety funkcjonowania są krzywdzące – „wysoko" bagatelizuje trudności, „nisko" odbiera podmiotowość.
Leczenie, np. autyzmu, ADHD, itp.	Wsparcie / Adaptacja / Współpraca	W neuroróżnorodności nie leczymy mózgu, lecz wspieramy osobę w lepszym funkcjonowaniu.

Oprac. własne

Kiedy jednak powinniśmy używać języka medycznego?
Jako diagności i „counselerzy" musimy poruszać się między wieloma światami. Są sytuacje, w których musimy używać języka klinicznego (np. „zaburzenie") lub będzie to wskazane. Dzieje się tak przynajmniej w dwóch przypadkach, gdy:
-wymaga tego system: w dokumentacji medycznej, opiniach do szkoły/ZUS/sądu czy orzeczeniach, itp.
- potrzebuje tego sam klient: niektórzy klienci odczuwają ulgę, używając terminów medycznych, bo daje im to poczucie „ważności" ich cierpienia. Zawsze podążaj za językiem klienta.
Z drugiej strony, złotą zasadą staje się używanie języka akcentującego tożsamość neurodywergencyjną danej osoby lub opisowego, skoncentrowanego na zaburzeniu oddzielonym od osoby (osoba z autyzmem) zamiast posługiwania się medycznym etykietowaniem w rozmowie na jej temat. W języku angielskim określa się to podejście językowe jako: "Identity-first" vs "Person-first".

- Person-first language: „Osoba z autyzmem" (akcentuje osobę, oddzielając ją od diagnozy) – tradycyjnie preferowane przez profesjonalistów.
- Identity-first language: „Osoba autystyczna" (akcentuje, że autyzm jest nieodłączną częścią tożsamości) – coraz częściej preferowane przez same osoby neuroróżnorodne, jednak warto spytać klienta, jaki język preferuje, czy też jest jej/mu to obojętne (podążanie za klientem)

[1] Przykładem może być stosowanie przez autorkę artykułu pojęcia „autystycznego wzorca funkcjonowania" AWF, zbliżonego do określenia „różnic indywidualnych" stosowanego w psychologii osobowości bardziej, niż do medycznego określenia „zaburzenie" . AWF — neutralne, psychologiczne pojęcie opisowe (niekoniecznie medyczne) — pozwala na prowadzenie bezpiecznego poradnictwa bez konieczności formalnej diagnozy (por. R. Stefańska-Klar, 2024)

Oto praktyczny przykład zmiany narracji:
Zamiast powiedzieć:
„Twoje objawy ADHD powodują deficyty w koncentracji, co wymaga leczenia behawioralnego".

Można powiedzieć (w duchu BPS):
„Twój profil poznawczy charakteryzuje się dużą potrzebą stymulacji i szybkim przetwarzaniem informacji. Wspólnie poszukamy strategii, które pomogą Ci zarządzać uwagą w środowiskach, które nie są do tego dostosowane".

5 ZAKOŃCZENIE

Wprowadzenie paradygmatu neuroróżnorodności do poradnictwa psychologicznego stanowi nie tylko zmianę teoretyczną, ale przede wszystkim etyczną i praktyczną rewolucję. Przejście od pytania „co jest z tobą nie tak?" do „jakiego wsparcia potrzebujesz?" pozwala na pełniejszą podmiotowość klienta i redukcję traumy mniejszościowej wynikającej z presji maskowania. Choć w polskim systemie pomocowym wciąż silnie obecny jest język kliniczny (wymagany m.in. przez system orzecznictwa), rosnąca świadomość oraz wsparcie ze strony światowych organizacji, takich jak APA i BPS, dostarczają konkretnych narzędzi do pracy afirmatywnej.
Wnioski płynące z analizy wskazują, że przyszłość poradnictwa leży w elastyczności – od audytu sensorycznego gabinetu po uważność na preferencje językowe i tożsamościowe osób neurodywergentnych. Kluczem do skutecznej pomocy staje się akceptacja faktu, że różnice w funkcjonowaniu mózgu są naturalnym elementem ludzkiego spektrum, a rolą terapeuty jest bycie sojusznikiem, który pomaga klientowi odnaleźć autentyczność i budować życie w zgodzie z jego unikalnym profilem poznawczym.

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HODNOCENÍ TRAUMATICKÝCH SYMPTOMŮ U MLADŠÍCH DĚTÍ

THE TRAUMA SYMPTOM CHECKLIST FOR YOUNG CHILDREN

Jan Tirpák, Miriam Uhrinová, Natálie Badinková

Abstrakt

Článek se zabývá hodnocením traumatických symptomů u dětí ve věku 3–12 let vychovateli školských zařízení pro výkon ústavní výchovy. Výzkum tvoří výsledky standardizovaného šetření pomocí TSCYC-Hodnocení traumatických symptomů u mladších dětí (Briere, 2018) na vzorku 86 vybraných respondentů. Text reflektuje klíčové aspekty související s tímto výzkumem.

Klíčová slova: *trauma, děti, ústavní výchova, standardizovaný dotazník, vychovatelé*

Abstract

The article deals with the assessment of traumatic symptoms in children aged 3–12 by educators in institutional care facilities. The research consists of the results of a standardized survey using the TSCYC–Trauma Symptom Checklist for Young Children (Briere, 2018) on a sample of 86 selected respondents. The text reflects the key aspects related to this research.

Key words: *trauma, children, institutional care, standardized questionnaire, educators*

1 ÚVOD A TEORETICKÁ VÝCHODISKA

Předmětem našeho odborného zájmu je problematika hodnocení traumatických symptomů u dětí ve věku 3–12 let vychovateli školských zařízení pro výkon ústavní výchovy. Uvedené téma je z našeho pohledu velmi aktuální, neboť výskyt traumatu u dětí představuje zásadní faktor ovlivňující jejich emocionální, sociální i kognitivní vývoj. K našemu tvrzení máme řadu opodstatněných důvodů.

Všeobecně se předpokládá, že základ jakékoliv odborné péče by měl být charakterizován holistickým přístupem, který v obecné rovině integruje postupy přispívající k péči, intimitě, důvěře a svým pojetím vytváří podmínky pro sociálně-emocionální rozvoj a učení jedince (Pramling Samuelsson, Wagner & Ødegaard, 2020). Tento pohled rezonuje s etikou péče, přispívající k fyzické, duševní pohodě a zdraví člověka (Noddings, 2013).

Holistický přístup k péči o děti zdůrazňuje potřebu sledovat a podporovat všechny aspekty jejich života a rozvoje. Námi uvedené zahrnuje nejen uspokojování jejich základních fyziologických potřeb, ale také naplňování pocitu bezpečí, jistoty, přijetí, uznání, úcty a seberealizace. Integrace těchto aspektů do poskytování kvalitní institucionální péče vytváří komplexní prostředí, které je pro děti příznivé a podporuje jejich komplexní rozvoj. (Barber & Delfabbro, 2003)

Avšak jednotlivé děti mohou mít různé potřeby v závislosti na jejich osobnosti, vývojovém stádiu a dalších faktorech. Respektování těchto individuálních rozdílů a poskytování péče přizpůsobené každému jednotlivému dítěti jsou naprosto podstatné pro účinnou podporu jeho osobního růstu a rozvoje. (Chor et al., 2012)

Systém školských zařízení pro výkon ústavní a ochranné výchovy v České republice (diagnostické ústavy, dětské domovy, dětské domovy se školou a výchovné ústavy) je svou podstatou primárně zaměřen na výchovu dětí (Sekera, 2009). Z těchto důvodů je v uvedených institucích zcela zásadní, aby realizovaná výchova aktivně formovala,

socializovala (eventuálně resocializovala) osobnost jedince. Pro děti postrádající stabilní rodinné prostředí nebo potýkající se s problémy či dokonce závažnými poruchami chování, má deklarovaný proces socializace především překonat negativní vzory a pomoc dětem naučit se novým a společností tolerovaným způsobům interakce. (Smolík, Svoboda et al., 2012)
Připouštíme, že jednou z funkcí těchto zařízení je i zprostředkování a zajištění dítěti tzv. plné přímé zaopatření, což zahrnuje saturaci jeho základních životních potřeb (zákon č. 109/2002 Sb.). Přesto výchovné aktivity a činnosti v těchto zařízeních (popřípadě ještě do výčtu můžeme zařadit vzdělávací úlohu dětských domovů se školou) považujeme za dominantní a určující (Škoviera, 2007; Sekera, 2009; Smolík, Svoboda et al., 2012).
Na mezinárodní úrovni probíhá neustálá a dlouhodobá diskuse o problematice ústavní péče u dětí. Odborné debaty se dotýkají mnoha důležitých otázek, jako je komplexní vytváření optimálního prostředí pro děti mimo jejich biologickou rodinu, volba nejlepších postupů v péči a výchově v daném prostředí, role pedagogů (vychovatelů) v těchto zařízeních. V dané oblasti proto výzkumy zahrnují zkoumání strategií péče, výchovných postupů, podmínek prostředí a interakcí mezi dětmi a vychovateli. Identifikace konkrétních potřeb, silných i slabých stránek tohoto systému umožňuje efektivnější plánování a zkvalitňování péče a výchovy dětí vyrůstající mimo svou biologickou rodinu. Systematické hodnocení traumatických symptomů přitom představuje klíčový proces, neboť pomáhá včas odhalit vznikající problémy, správně nasměrovat potřebnou intervenci a zajistit dítěti adekvátní podporu odpovídající jeho individuální situaci. (Knapp, 2006; Chance, Dickson, Bennett & Stone, 2010; Marshall & Burton, 2010; Souverein et al., 2013; Dozier et al., 2014; Melkman, 2015)
Snahy kvantifikovat a popsat celosvětově institucionální péči o děti nelze, protože chybí dostatek vysoce kvalitních dat. Mnoho zemí totiž běžně nesbírá nebo dlouhodobě nesleduje údaje o dětech v ústavní péči (Berens & Nelson, 2015). V odborné literatuře proto existuje pouze malá shoda ohledně účinnosti a vhodnosti ústavní péče pro děti, což reflektuje komplexnost této problematiky způsobené roztříštěným metodologickým přístupem jednotlivých studií (Frensch & Cameron, 2002; Preyde et al., 2009; Preyde et al., 2011).
Některá zkoumání věnující se účinnosti a efektivitě ústavní péče často zahrnují různé vědecké záměry, což vede k nejednoznačným závěrům a rozporům v interpretaci výsledků. Značná část výzkumů používají longitudinální přístupy a sledují děti v náhradní výchovné péči po delší časové období (Dunn, Culhane & Taussig, 2010). Naopak jiné průzkumy se zaměřují na paralelní design šetření. Ten na jedné straně poskytuje relevantní výsledky současného stavu, ale na straně druhé nezohledňuje dynamiku možných změn v čase (Souverein et al., 2013). Popsaný metodologický rozkol komplikuje snahu o vytvoření jednotného pohledu na účelnost ústavní péče. Jedním z cílů náhradní výchovné péče je poskytnout především bezpečné a strukturované prostředí (Rose, 2014). Z našeho pohledu je nezpochybnitelné, že vhodnost ústavní péče by měla být vždy posuzována spíše s ohledem na typ a závažnost problémů konkrétních dětí (Ryan & Testa, 2005; Andrews & Bonta, 2010; Dunn, Culhane, & Taussig, 2010; Jakobsen, 2013; Tirpák, 2024).
Zastáváme názor, že vhodné institucionální prostředí může zajistit v prvé řadě bezpečí a ochranu dětí přicházející z nevhodného prostředí (De Swart et al., 2012; Souverein et al., 2013; Tirpák, 2024). Existují však důkazy, že samotný život v ústavním zařízení může mít sám o sobě negativní dopad na vývoj dětí (Preyde et al., 2009; Melkman, 2015), zvláště v důsledku odloučení dětí od biologických rodičů se mohou vyvinout různé internalizující (deprese, úzkost, somatické stížnosti, obsedantně kompulzivní syndrom, sociální izolace, nekomunikativnost) a externalizující (problémy s pozorností, delikventní chování, agresivní chování) problémy v chování (White & King, 2011; Van der Helm, Stams, & Van der Laan, 2012) či případně duševní problémy (Johnson, Browne, & Hamilton-Giachritsis, 2006).

Vzhledem k výše uvedeným zjištěním je proto nezbytné systematicky zkoumat, jaké specifické potřeby a projevy ohrožení se u dětí v institucionální péči objevují.

2 METODOLOGIE

Výzkumná studie se zaměřuje na analýzu dat získaných v rámci výzkumu provedeného v zařízeních náhradní výchovné péče. Výzkum byl proveden v dětských domovech na souhrnném vzorku 86 dětí, kdy deset dětí bylo ve věku od 3 do 4 let, čtyřicet tři bylo ve věku 5–9 let a třicet tři v rozmezí 10–12 let. Z celkového počtu 86 hodnocených dětí bylo 40 chlapců (47 %) a 46 dívek (53 %).
Dětské domovy zaujímají ve struktuře školských zařízení pro výkon ústavní výchovy zvláštní místo. Jejich primárním úkolem je zajištění náhradní výchovné péče dětem od 4 do 18 let věku bez závažných poruch chování. Cílem dětských domovů je vytvořit institucionální prostředí, podporující rozvoj osobnosti dětí, poskytnout jim pocit bezpečí a možnost uspokojovat své psychické a fyzické potřeby. (Smolík, Svoboda et al., 2012)
Data pro analýzu byla získaná za pomoci standardizovaného dotazníku TSCYC-Hodnocení traumatických symptomů u mladších dětí (Briere, 2018), který lze použít k vyhodnocení traumatických symptomů u dětí ve věkovém rozmezí od 3 do 12 let. Pečující osoba (vychovatel, pedagog) hodnotí na čtyřbodové škále každý symptom od 1 (nikdy) po 4 (velmi často), podle toho, jak často daný jev pozorovala během posledního měsíce. K dispozici jsou normy pro českou populaci, kdy je možný přepočet hrubého skóre na T-skór (střední hodnota je 50 a standardní odchylka je ±10) a tím porovnat výsledky jednotlivců se standardním vzorkem populace. V rámci dotazníku TSCYC jsou T-skóry v rozmezí 50–64 jsou považovány za normu, T-skóry v rozmezí mezi 65–69 jsou považovány za potencionálně problematické a T-skóry vyšší nebo rovné 70 se interpretují jako klinicky významné.
Klinické škály dotazníku TSCYC měří rozsah, který dítě přiřazuje osmi různým typům symptomů potenciálně se vztahujících k traumatu. Jedná se o úzkost (ANX), depresi (DEP), hněv/agresi (ANG), posttraumatický stres-intruzi (PTS-I), posttraumatický stres-averzi (PTS-AV), posttraumatický stres-arousal (PTS-AR), disociaci (DIS) a sexuální obavy (SC). Dále obsahuje jednu souhrnnou škálu posttraumatický stres-celkem (PTS-TOT). V našem výzkumu jsme se zaměřili na pět vybraných škál (tab. 1). Jednalo se o úzkost (ANX), depresi (DEP), hněv/agresi (ANG), disociaci (DIS) a sexuální obavy (SC).

Klinické škály	
Úzkost (ANX)	Generalizovaná úzkost a obavy, specifické strachy (například ze zabití), zvýšená bázlivost a vnímání/vytušení blížícího se nebezpečí.
Deprese (DEP)	Pocity smutku, neštěstí, uplakanost, depresivní vzhled, depresivní přemýšlení (sebeobviňování a sebepoškozování)
Hněv/agrese (ANG)	Agresivní pocity a chování, včetně pocitů zuřivosti, rozladěnosti, snadno se rozzlobí, křičení, bouchání, praní a krutost ke zvířatům.
Disociace (DIS)	Disociativní symptomatika, včetně emoční neangažovanosti, zírání do volného prostoru, unikání do světa fantazií, roztržitost, stav jako v transu, omezená pozornost k vnějšímu prostředí.
Sexuální obavy (SC)	Znalosti o sexu, chování a pocity nebo obavy, které jsou atypické, protože se objevují dříve, než se očekává nebo s větší než obvyklou frekvencí a ustrašené reakce na sexuální podněty.

Tabulka 1: Stručný popis validizačních a klinických škál TSCYC (Briere, 2018, s. 8)

Klinické škály dotazníku TSCYC představují klíčovou část nástroje určeného k hodnocení traumatických symptomů u dětí a tvoří komplexní obraz traumatických zkušeností.

Mezi specifické projevy související se závažnými formami traumatu patří úzkost (ANX). Škála odráží emoční napětí, obavy a zvýšenou vnímavost k potenciálnímu ohrožení. Úzkost u dětí často vychází z narušeného pocitu bezpečí a dlouhodobé expozice nepředvídatelným či ohrožujícím podmínkám. Děti mohou reagovat přehnaným strachem, zvýšenou lekavostí nebo vyhýbáním se situacím považující za rizikové. Škála ANX umožňuje zachytit projevy představující stresové reakce a zvýšenou citlivost na vnější podněty. Jedná se o oblast představující nejčastější projev dětské traumatické zkušenosti.
Deprese (DEP) je škálou zaměřující se na emoční ladění dítěte a identifikaci projevů narušené afektivní regulace. Depresivní projevy u dětí mívají specifickou podobu, kdy se méně objevují verbální popisy smutku. Důsledkem jsou spíše změny v chování, jako je snížená aktivita, únava, sociální stažení nebo podrážděnost. Zmíněné projevy je nutné interpretovat v kontextu životních zkušeností dítěte, protože depresivní ladění může být důsledkem dlouhodobé nejistoty, odloučení či zanedbávání.
Regulace hněvu a impulzivity je hodnocena prostřednictvím škály hněv/agrese (ANG). Oblast se soustředí na intenzitu a četnost afektivních reakcí. Agresivní chování často představuje nevhodný způsob zvládání frustrace či pocitu ohrožení. Děti mohou reagovat výbuchy hněvu, impulzivitou nebo fyzickým či verbálním napadáním. Škála ANG tudíž poskytuje důležité informace o tom, jak dítě zvládá napětí a jak reaguje na stresové situace.
Významnou klinickou oblastí je disociace (DIS), neboť zachycuje projevy odpojení od okolní reality, snížení pozornosti či únik do fantazie. Disociativní projevy jsou u traumatizovaných dětí poměrně časté, protože představují způsob obrany dítěte před přetěžujícím emočním zážitkem. Projevy jsou někdy zaměňovány za symptomy hyperkinetických poruch, nicméně sami o sobě představují adaptivní reakci na intenzivní emoční stres.
Poslední specifickou oblast z pohledu traumatických symptomů sleduje škála sexuální obavy (SC). Doména se zaměřuje na chování či reakce spojené s tělesnou a intimní blízkostí, které nejsou typické pro daný věk dítěte. Projevy totiž mohou souviset se zkušeností se sexuálním zneužíváním nebo s jiným narušením hranic. Dítě může reagovat nadměrnou úzkostí nebo naopak nevhodnými modely chování. Z diagnostického hlediska je škála mimořádně významná, protože projevy spojené se sexualitou bývají často přehlíženy nebo nesprávně interpretovány. (Briere, 2018)

3 VÝSLEDKY ŠETŘENÍ A JEJICH DISKUSE

V další části textu se snažíme poskytnout komplexní interpretaci výsledků získaných z pěti klinických škál dotazníku TSCYC u dětí umístěných v institucionální péči. Námi sledované jednotlivé oblasti hodnocení z pohledu vychovatelů představují klíčové oblasti, jejichž analýza umožňuje vytvořit obraz sledované skupiny respondentů v rámci náhradní výchovné péče.
V rámci jednotlivých etap výzkumu jsme se ve všech případech snažili o výběr vhodných deskriptivních a induktivních metod statistické analýzy pro vyhodnocení získaných dat. Zpracování a analýza dat byla provedena za pomoci statistického softwaru Statgraphics Centurion XV. Využité statistické veličiny u deskriptivní a induktivní části tohoto textu jsou ve shodě s odbornou literaturou (Hendl, 2012). Jedná se o následující značení: Ø = aritmetický průměr, Mod. = modus, Med. = medián, Max. = maximum, Min. = minimum, N = počet respondentů, p = pozorovaná hladina významnosti (p-level), r = korelační koeficient, SD = směrodatná odchylka, t = testové kritérium příslušného Studentova t-testu, α = Cronbachovo alfa, HS = hrubé skóre. Z pohledu testovaného standardizovaného nástroje bylo k dispozici T-skóre klinických škál TSCYC.
Zastáváme názor, že deskriptivní analýza hodnot sledovaných škál (tab. 2) poskytuje obraz o míře psychické zátěže sledovaného vzorku dětí umístěných v dětských domovech.

Výsledky představují klíčový vstup pro interpretaci toho, jaké typy obtíží jsou u těchto dětí přítomny. Již na první pohled je patrné, že sledované symptomy se mezi dětmi značně liší, což potvrzuje jejich vysoká heterogenita. Zároveň však jednotlivé škály naznačují společný trend zvýšené míry negativních emocí a maladaptivních mechanismů typických pro děti v náhradní výchovné péči.

Škála	Průměr	Med.	Mod.	SD	Min.	Max.	*N* nad T>65
ANX	51,980	51	44	10,443	37	82	8
DEP	52,640	49	44	11,832	37	89	13
ANG	57,663	54	41	16,782	35	110	21
DIS	52,780	50	39	12,982	39	105	14
SC	57,430	51	45	19,550	43	110	19

Tabulka 2: Hodnoty vybraných ukazatelů výzkumného šetření v oblasti jednotlivých klinických škál TSCYC/úzkost (ANX), deprese (DEP), hněv/agrese (ANG), disociace (DIS), sexuální obavy (SC)

Hodnoty úzkosti (ANX) ukazují, že většina dětí se pohybuje v pásmu mírných až středních obtíží, nicméně část souboru má zvýšené hodnoty, které již signalizují významnější psychickou zátěž. Průměrný T-skór se nachází jen mírně nad populační normou, ale rozptyl hodnot naznačuje, že u některých dětí může být úzkost výrazně zvýšená a projevovat se jako přetrvávající napětí, pocit ohrožení či nadměrné obavy.

Podobně jako úzkost vykazuje i deprese (DEP)mírně zvýšené hodnoty ve srovnání s normou populace, přičemž část souboru dosahuje vysokých hodnot. Uvedené výsledky mohou naznačovat u části sledovaných dětí přítomnost výraznějšího emočního utrpení. Depresivní symptomy u dětí se mohou projevovat odtažitostí, pocitem smutku, sníženou motivací, podrážděností či nízkým sebevědomím. Uvedené projevy jsou totiž často ovlivněny zkušeností s nestabilitou rodinného prostředí, nedostatečnou emoční podporou nebo prožitými traumaty. Z hlediska deskriptivní statistiky je patrné, že depresivní symptomy mají širší variabilitu než úzkost.

Ze všech škál nejvýraznější hodnoty vykazuje oblast hněvu a agrese (ANG). Průměrná hodnota této škály je ze všech nejvyšší. Velmi široké rozpětí hodnot naznačuje existenci skupiny dětí, které projevují agresivní chování v intenzitě přesahující běžnou míru. U sledované skupiny může agrese představovat formu obranného mechanismu, vznikající v reakci na předchozí ohrožující nebo traumatické situace. Projevy agrese však mohou být také důsledkem potíží v emoční regulaci, frustrace, absence stabilního vztahového vzoru nebo naučených způsobů chování.

Specifickou oblast projevů spojených s traumatem představuje disociace (DIS). Disociace se u dětí může objevovat jako únik od přetěžujících emocí nebo stresorů a projevuje se například zasněností, ztrátou kontaktu s realitou, emoční otupělostí či neschopností plně vnímat své okolí. Průměrné hodnoty disociace ukazují na mírně zvýšenou zátěž. Zastáváme názor, že je nutné poukázat především na velký rozptyl hodnot odhalující existenci dvou odlišných skupin dětí (první s minimálními nebo mírnými projevy a druhou s výrazně zvýšenými či extrémními hodnotami disociace). U druhé skupiny pravděpodobně disociace představuje mechanismus odpoutání od reality v emočně ohrožujících situacích v prostředí institucionální péče.

Velmi významné jsou i výsledky škály sexuálních obav (SC). Škála zachycuje úzkostné reakce na situace spojené s tělesnou blízkostí, neadekvátní sexuální chování nebo zvýšený zájem o sexualitu. Průměrná zjištěná hodnota T-skóre je jedna z nejvyšších, což naznačuje významné ovlivnění uvedené škály u dětí v institucionální péči. Zvláště alarmující jsou

extrémně vysoké hodnoty u některých dětí, které mohou ukazovat na vážnou traumatickou historii vyžadující specializovanou odbornou intervenci.
Celkově deskriptivní statistika ukazuje, že sledované děti představují vysoce heterogenní skupinu se zvýšenou mírou symptomatologie napříč všemi sledovanými oblastmi. Zatímco některé děti vykazují hodnoty v normálním rozmezí, u jiných se vyskytují výrazné projevy emoční nebo behaviorální dysregulace. Největší zátěž se projevuje v oblastech agrese a sexuality, zatímco úzkost, deprese a disociace jsou přítomny v mírně až středně zvýšené míře, přičemž u části dětí jsou klinicky významné. Kombinace symptomů je typická pro děti s historií kumulativního traumatu a poukazuje na potřebu intenzivní, odborně vedené podpory, reflektující individuální potřeby každého dítěte v systému náhradní výchovné péče.
Domníváme se, že námi zjištěné závěry zároveň představují významný podklad pro další analýzy, zejména pro zkoumání vztahů mezi symptomy a jejich hlubších souvislostí odhalující komplexní vzorce spojené s traumatickou zkušeností.
Korelační analýza (tab. 3) mezi jednotlivými klinickými škálami poskytuje důležité informace o tom, jak jsou jednotlivé symptomy vzájemně propojené a jak společně vytvářejí typické vzorce chování a prožívání u dětí vyrůstajících v institucionální péči.

Škála	**ANX**	**DEP**	**ANG**	**DIS**	**SC**
ANX		<0,001 r = 0,543*** r^2 = 29,48 %	<0,001 r = 0,425*** r^2 = 18,06 %	0,004 r = 0,307*** r^2 = 9,42 %	<0,001 r = 0,384*** r^2 = 14,75 %
DEP	<0,001 r = 0,543*** r^2 = 29,48 %		<0,001 r = 0,510*** r^2 = 26,01 %	<0,001 r = 0,427*** r^2 = 18,23 %	<0,001 r = 0,351*** r^2 = 12,32 %
ANG	<0,001 r = 0,425*** r^2 = 18,06 %	<0,001 r = 0,510*** r^2 = 26,01 %		0,023 r = 0,244** r^2 = 5,95 %	<0,001 r = 0,513*** r^2 = 26,32 %
DIS	0,004 r = 0,307*** r^2 = 9,42 %	<0,001 r = 0,427*** r^2 = 18,23 %	0,023 r = 0,244** r^2 = 5,95 %		0,339 r = 0,104 ** r^2 = 1,08 %
SC	<0,001 r = 0,384*** r^2 = 14,75 %	<0,001 r = 0,351*** r^2 = 12,32 %	<0,001 r = 0,513*** r^2 = 26,32 %	0,339 r = 0,104 ** r^2 = 1,08 %	

Vysvětlivky: * Nulová až velmi nízká, ** Malá, nízká, *** Střední, **** Velká, vysoká (Hendl, 2012)
Tabulka 3: Korelace mezi jednotlivými klinickými škálami TSCYC/úzkost (ANX), deprese (DEP), hněv/agrese (ANG), disociace (DIS), sexuální obavy (SC)

Pro interpretaci zjištěných korelačních koeficientů byla využita kategorizace síly asociace podle Hendla (2012), kdy hodnoty blízké nule představují nulovou až velmi nízkou míru asociace. Korelace v rozmezí 0,1 až 0,3 jsou hodnoceny jako malé až nízké. Rozmezí 0,3 až 0,7 označuje střední sílu asociace. Korelační koeficienty v rozmezí 0,7 až 1,0 pak vyjadřují vysokou asociaci.
Jedním z nejsilnějších zjištěných vztahů je korelace mezi úzkostí (ANX) a depresí (DEP). Koeficient 0,543 ukazuje na středně silný vztah, přičemž obě klinické škály mají téměř 30 % sdílené variance (r^2). Tudíž značná část prožívání jedné oblasti se překrývá s druhou. Zjištěná souvislost není u dětí v institucionální péči překvapující. Úzkost a deprese často vycházejí ze stejné psychosociální příčiny. Kromě toho některé případové studie naznačují skutečnost, že závažné poruchy chování mohou být spojovány s abnormálním vývojem mozku v důsledku zanedbávání a traumatizace (Fairchild et al., 2013; Raine, 2013).

Tyto poznatky nás nutí k zamyšlení nad tím, jaký vliv má prostředí a podmínky institucionální výchovy na rozvoj a chování dětí umístěných v těchto zařízeních.
Podobně středně významný vztah se objevuje i mezi depresí (DEP) a agresí/hněvem (ANG). Z našeho pohledu výsledek ukazuje na propojenost internalizovaných a externalizovaných projevů. Děti prožívající hluboký smutek, frustraci nebo bezmoc, mohou reagovat agresí v případě nedostatečně rozvinutých schopností emoční regulace. V tomto ohledu představuje agrese sekundární projev depresivního ladění, zejména pokud dítě nemá prostor či podporu pro vyjádření svých emocí jiným způsobem.
Rovněž vztah mezi úzkostí (ANX) a agresí (DEP) vykazuje střední hodnotu (0,425). V systému školských zařízení pro výkon ústavní výchovy je uvedený vztah často interpretován jako forma obranného mechanismu (Sekera, 2009). Agresivní chování funguje jako strategie získání kontroly v prostředí, kde se dítě cítí bezmocně.
Dalším významným zjištěním je středně silná korelace mezi agresí (ANG) a sexuálními obavami (SC) (0,513). Zvýšené sexuální projevy či úzkost spojená se sexualitou mohou být důsledkem narušených hranic, traumatické zkušenosti či naučeného chování z původního prostředí. Spojení agresivních projevů se sexuálními obavami může ukazovat na kumulovanou zátěž, v níž dítě reaguje současně zvýšenou obrannou i naopak přehnanou citlivostí v oblasti tělesné a intimní blízkosti. Zjištěná kombinace představuje v praxi významnou výzvu, protože typicky vyžaduje interdisciplinární spolupráci psychologa, speciálního pedagoga a sociálního pracovníka. V prostředí dětského domova to může být obzvlášť náročné, jelikož klinický psycholog nebývá standardně stálým členem interního týmu a odborná podpora tak často závisí na externí spolupráci, dostupnosti odborníků a kapacitách zařízení.
Domníváme se, že zajímavým a klinicky důležitým zjištěním je absence významné korelace mezi disociací a sexuálními obavami (0,104). Výsledek poukazuje, že ačkoli obě oblasti mohou být výrazně ovlivněny traumatem, jedná se o relativně nezávislé dimenze. Dítě s vysokou mírou disociace tak nemusí nutně vykazovat sexuální úzkost nebo nevhodné sexuální projevy a naopak. Sexualita a disociace jsou pravděpodobně ovlivňovány rozdílnými typy zkušeností nebo rozdílnými aspekty traumatu. Z praktického hlediska to poukazuje na nutnost hodnotit tyto dvě oblasti nezávisle na sobě a nepředpokládat, že zvýšená disociace automaticky znamená problémy v oblasti sexuality.

4 ZÁVĚR A DISKUSE

Souhrnně lze říci, že výsledky výzkumu potvrzují u sledované skupiny dětí vyrůstajících v systému školských zařízení pro výkon ústavní výchovy zvýšenou psychosociální zátěž. Jedná se o specifickou skupinu s výrazně vyšším rizikem různorodých obtíží. Zátěž se navíc projevuje napříč jednotlivými hodnoticími škálami. U každé škály se objevuje v odlišné míře a podobě, což ukazuje na široké spektrum problémů přítomných ve sledované skupině dětí.
Analýza symptomů úzkosti, deprese, hněvu a agrese, disociace a sexuálních obav ukázala, že všechny děti nejsou zatížený ve stejné míře.
nejsou všechny děti zatíženy ve stejné míře, v populaci se výrazně častěji vyskytují projevy emoční nestability, narušené regulace emocí či maladaptivních strategií než v běžné populaci.
Zvláště alarmující je však vysoká variabilita výsledků a přítomnost extrémních hodnot, naznačující existenci skupiny dětí s velmi výraznými klinickými příznaky, vyžadující odborné sledování a cílenou intervenci. V prostředí dětského domova je však situace obzvlášť složitější, jelikož klinický psycholog není běžně stabilní součástí pracovního týmu. Zařízení proto musí využívat externí odborníky, jejichž dostupnost a kapacity mohou být omezené.
Významným zjištěním je také středně silná vzájemná propojenost jednotlivých oblastí. Korelace mezi jednotlivými škálami ukázaly, že symptomy se typicky nevyskytují izolovaně. Velmi často spíše tvoří soubor vzorců charakteristických pro děti s traumatickými

zkušenostmi, nestabilním prostředím nebo nedostatkem bezpečného vztahového zázemí. Propojení úzkosti, deprese a agrese ukazuje, že emoční zátěž a frustrace se u těchto dětí mohou projevovat ve formě navenek i vnitřně směřovaného chování. Naopak slabé nebo chybějící vztahy mezi oblastmi disociace a sexuální obavy spíše poukazují na specifickou povahu jednotlivých symptomatických domén a potřebu posuzovat je odděleně.

Děti v institucionální péči žijí ve zvýšeně náročných podmínkách, které mohou dále umocňovat jejich obtíže. Absence stabilního pečujícího vztahu, časté změny prostředí, nedostatečná individualizace péče či omezený přístup k pravidelné odborné podpoře patří mezi faktory zvyšující pravděpodobnost rozvoje či udržování psychosociálních problémů. Zjištěná kombinace traumatických symptomů (včetně zvýšené agresivity, problémů v oblasti sexuality nebo disociace) představuje významnou výzvu především pro pracovníky (vychovatele) těchto zařízení.

Výsledky mohou posloužit jako podklad pro další výzkumy zaměřené na obdobnou problematiku a přispět tak k rozšíření speciálně pedagogické teorie ve školských zařízeních pro výkon ústavní a ochranné výchovy. Domníváme se, že oblast traumatických symptomů u dětí v náhradní výchovné péči si zasluhuje hlubší a systematičtější analýzu. Do budoucna by tudíž bylo vhodné realizovat obdobný výzkum například i ve výchovných ústavech či dětských domovech se školou. Jedná se o zařízení pracující s odlišnou cílovou skupinou než standardní dětské domovy (děti se závažnou poruchou chování). Umožnilo by to porovnat specifika projevů traumatických symptomů, odlišnosti v dynamice skupiny i rozdíly v nárocích kladených na pedagogické pracovníky (vychovatele). Jako výzkumný nástroj by mohl posloužit standardizovaný nástroj Hodnocení traumatických symptomů u dětí a adolescentů TSCC (Briere, 2022). Závěrem lze konstatovat, že zjištění našeho výzkumu pouze potvrzují nutnost systematického a dlouhodobého monitorování psychického stavu jednotlivých dětí v ústavní péči. Zároveň však zastáváme názor o potřebě posílené odborné podpory přímo v prostředí těchto zařízení.

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COUNSELING AKO NÁSTROJ PREVENCIE SYNDRÓMU VYHORENIA (BURNOUT) V POMÁHAJÚCICH PROFESIÁCH

COUNSELING AS A TOOL FOR THE PREVENTION OF BURNOUT SYNDROME IN HELPING PROFESSIONS

Krzysztof Trębski

Abstrakt

Syndróm vyhorenia predstavuje významný psychosociálny problém v pomáhajúcich profesiách, ktorý vzniká ako dôsledok nesúladu medzi pracovnými nárokmi, osobnými zdrojmi a možnosťami regenerácie. Cieľom príspevku je analyzovať counseling ako bezpečný a reflexívny priestor umožňujúci spracovanie emocionálnej záťaže a posilňovanie profesijnej odolnosti a poukázať na jeho význam ako efektívneho nástroja prevencie syndrómu vyhorenia. Príspevok vychádza zo súčasných teoretických a empirických poznatkov a zdôrazňuje význam sebauvedomenia, sebaregulácie a nastavovania profesionálnych hraníc. Zároveň poukazuje na potrebu systematickej prevencie a integrácie counselingu do systému profesijnej podpory v kombinácii so supervíziou a sebaopaterou.).

Kľúčové slová: *Syndróm vyhorenia (burnout), counseling, prevencia vyhorenia, pomáhajúce profesie.*

Abstract

Burnout syndrome represents a significant psychosocial problem in helping professions, arising as a result of an imbalance between work demands, personal resources, and opportunities for recovery. The aim of this paper is to analyze counseling as a safe and reflective space that enables the processing of emotional burden and the strengthening of professional resilience, and to highlight its significance as an effective tool for the prevention of burnout syndrome. The paper draws on current theoretical and empirical findings and emphasizes the importance of self-awareness, self-regulation, and the establishment of professional boundaries. It also points to the need for systematic prevention and the integration of counseling into systems of professional support in combination with supervision and self-care.

Keywords: *Burnout syndrome, counseling, burnout prevention, helping professions.*

ÚVOD

Syndróm vyhorenia (burnout) predstavuje komplexný psychologický fenomén, ktorý sa najčastejšie vyskytuje u profesionálov pracujúcich v pomáhajúcich profesiách, ako sú counselori, psychológovia, psychoterapeuti, sociálni pracovníci či zdravotnícki pracovníci.

Pomáhajúce profesie priťahujú ľudí, ktorí v sebe nosia silnú vnútornú motiváciu prinášať úžitok druhým a nachádzať v tejto službe zmysel vlastného života. Hoci je táto motivácia hlboko prosociálna a hodnotná, môže vytvárať aj priestor pre nadmernú idealizáciu povolania či vlastnej profesionálnej identity. Keď sa idealizované predstavy stretnú s tvrdou realitou náročnej každodennej praxe, vzniká napätie, ktoré môže prerásť do frustrácie, sklamania a pocitu osobného zlyhania.

Pracovníci v pomáhajúcich profesiách sa zároveň ocitajú pod dvojitou záťažou - zápasia s vlastným stresom a zároveň absorbujú emocionálne napätie ľudí, ktorým poskytujú pomoc. Ak sa táto záťaž dlhodobo neventiluje a nepracuje sa s ňou, môže sa postupne rozvíjať psychické i fyzické vyčerpanie, strata energie a celkový úpadok, ktorý narúša profesionálnu efektivitu aj osobnú pohodu.

Výskumy ukazujú, že už po niekoľkých mesiacoch intenzívnej práce môže dochádzať k poklesu morálky, nadšenia a motivácie, k strate idealizmu či k prejavom apatie, podráždenosti alebo až cynizmu voči vlastnej práci i jej príjemcom (Maslach, 1978, 56-58). Syndróm vyhorenia predstavuje špecifickú formu pracovného stresu, ktorá vzniká v kontexte vzťahu medzi profesionálom a klientom. Maslach (1982) ho opisuje prostredníctvom troch dimenzií: emocionálne vyčerpanie, depersonalizácia ako obranný mechanizmus vedúci k emočnému odstupu a pocit zníženej osobnej efektívnosti. Kľúčové je uvedomiť si, že samotný stres ešte nevedie k vyhoreniu - kritickým faktorom je jeho dlhodobé, neriešené a kumulatívne pôsobenie (Rupert, Miller, Dorociak, 2015).

Reakcia na stres však nie je u všetkých rovnaká. Psychologické, behaviorálne a vzťahové charakteristiky jednotlivca môžu zvyšovať alebo znižovať jeho odolnosť. Vyššia sebaúcta, schopnosť vyjadrovať emócie, dôvera vo vlastné zručnosti pri riešení problémov, optimizmus, kvalitná sociálna sieť, schopnosť požiadať o pomoc, pozitívny postoj k zmene či zdravý životný štýl - to všetko môže významne prispieť k odolnosti voči stresu a k prevencii zdravotných následkov (Abramson, 2022).

Syndróm vyhorenia sa prejavuje naprieč biologickou, psychologickou a sociálnou rovinou, a práve ich prepojenie vytvára komplexný obraz tohto fenoménu. Ako upozorňuje Honzák (2009), pomáhajúci odborníci často v nadšení a altruistickej túžbe pomáhať iným nevedia, že „na tejto ceste ich čaká nebezpečná a zradná pasca". Povolanie, ktoré si kedysi s presvedčením vybrali, môžu postupne začať odmietať či dokonca nenávidieť - a tí, ktorým mali slúžiť, sa niekedy stávajú obeťami ich cynizmu, nezáujmu či obranného odstupu.

Práve tu vstupuje do hry counseling ako kľúčový nástroj prevencie. Cielená podpora, reflexívny priestor a rozvíjanie osobných zdrojov môžu pomôcť profesionálom udržiavať psychickú rovnováhu, posilňovať odolnosť voči stresu a predchádzať postupnému úpadku, ktorý je typický pre syndróm vyhorenia. Counseling umožňuje spracovanie záťaže, posilnenie sebauvedomenia a budovanie zdravých profesionálnych hraníc - čo sú základné predpoklady pre udržateľný výkon pomáhajúcich profesií.

1 SYNDRÓM VYHORENIA A JEHO A CHARAKTERISTIKY

Syndróm vyhorenia predstavuje komplexný psychický stav charakterizovaný dlhodobým emocionálnym, kognitívnym a neraz aj fyzickým vyčerpaním, ktorý vzniká ako reakcia na chronické pôsobenie stresorov, predovšetkým v pracovnom prostredí. Vysokú mieru výskytu vykazuje najmä medzi odborníkmi pôsobiacimi v pomáhajúcich profesiách, ktorí sú opakovane vystavovaní intenzívnej emocionálnej záťaži a nepretržitému kontaktu s potrebami a problémami druhých ľudí. Pojem burnout zaviedol do odbornej literatúry Herbert J. Freudenberger (1974), ktorý ho opísal ako stav únavy, frustrácie a sklamania vznikajúci u jednotlivcov celým nasadením oddaných práci, vzťahu alebo poslaniu, avšak bez dosiahnutia očakávaných výsledkov. V podobnom duchu Pines a Aronson (1988) definujú vyhorenie ako fyzické, emocionálne a mentálne vyčerpanie spôsobené dlhodobým vystavením emočne náročným situáciám. Podľa Rush (2003) ide predovšetkým o dôsledok nesúladu medzi vysokým osobným nasadením a nedostatočne napĺňajúcimi výsledkami práce, pričom riziko vzniku syndrómu býva najvyššie u jednotlivcov s výrazným vnútorným odhodlaním.

Súčasné teoretické konceptualizácie burnout syndrómu ho chápu ako multidimenzionálny jav pozostávajúci z troch základných zložiek: emocionálneho vyčerpania, depersonalizácie a zníženého pocitu osobného úspechu. Emocionálne vyčerpanie sa prejavuje postupnou stratou energetických zdrojov a neschopnosťou poskytovať ďalšiu emocionálnu podporu. Depersonalizácia predstavuje negatívny, cynický a odosobnený postoj voči klientom či kolegom, ktorý slúži ako maladaptívny mechanizmus psychickej ochrany. Znížený pocit osobného úspechu sa spája s klesajúcou sebadôverou, percepciou vlastnej nekompetentnosti a pocitom straty profesijného zmyslu.

Autori ako Kallwass (2007) rozširujú chápanie syndrómu vyhorenia o jeho somatické aspekty a upozorňujú na prítomnosť psychosomatických ťažkostí a pokles pracovnej výkonnosti. Potschkamp (2013) opisuje vyhorenie ako postupný proces eskalujúceho emocionálneho vyčerpania, ktorý môže vyústiť až do závažných zdravotných komplikácií. Takáto dynamika je výrazne akcentovaná práve v pomáhajúcich profesiách, kde intenzita emocionálnej náročnosti predstavuje stabilnú súčasť pracovnej záťaže.
Syndróm vyhorenia býva neraz zamieňaný s inými psychickými stavmi, najmä so stresom, depresiou alebo fyzickou únavou, avšak každé z týchto vymedzení odkazuje na odlišný fenomén. Zatiaľ čo stres môže vzniknúť v širokej škále životných situácií, vyhorenie je špecificky viazané na pracovný kontext a dlhodobé emocionálne nasadenie. Chronický stres môže predstavovať rizikový faktor vzniku vyhorenia, no nie každý stresový stav vedie k jeho rozvoju. Od depresie sa burnout odlišuje najmä tým, že spravidla neobsahuje výrazné pocity viny a jeho symptómy sú prevažne viazané na pracovné prostredie a medziľudské interakcie. Oproti bežnej únave, ktorá ustupuje po odpočinku, je únava pri vyhorení perzistentná, sprevádzaná pocitom zlyhania a nereaguje na bežné regeneračné mechanizmy. Hoci jednotná definícia syndrómu vyhorenia zatiaľ nebola konsenzuálne prijatá, odborná literatúra sa zhoduje na jeho základných charakteristikách. Ide o stav sprevádzaný negatívnym emocionálnym prežívaním, pretrvávajúcou únavou, poklesom motivácie a zhoršením pracovnej výkonnosti, pričom jeho vznik je úzko spojený s pracovným prostredím a typicky sa objavuje u inak psychicky zdravých jedincov. Burnout možno chápať ako výsledok dlhodobého pôsobenia nadmernej emocionálnej a pracovnej záťaže, ktorá môže významne narušiť nielen profesijné fungovanie, ale aj celkovú kvalitu života jednotlivca.

2 DETERMINANTY SYNDRÓMU VYHORENIA

Syndróm vyhorenia vzniká najčastejšie kombináciou subjektívnych a objektívnych príčin. K subjektívnym patria predovšetkým vysoké očakávania a idealistické predstavy o práci, kým objektívne vyplývajú najmä z dlhodobého pôsobenia chronického stresu pri práci s ľuďmi. Napriek tomu, že syndróm vyhorenia môže postihnúť kohokoľvek, existujú rozdiely v jeho výskyte v závislosti od osobnostných vlastností, pohlavia a charakteru práce (Kallwas, 2007). Najviac ohrození sú ľudia so slabším sebavedomím, s pocitom zanedbateľného významu vlastnej práce, s neschopnosťou stanoviť si reálne ciele, s nadmernou mierou zodpovednosti a s tendenciou vnímať každé zlyhanie ako osobnú prehru. Ich sebavedomie je často závislé od hodnotenia okolia. Vyššie riziko sa objavuje aj u osôb s nízkou toleranciou voči záťaži, nižšou mierou empatie, narušenou komunikáciou s okolím či nadmernou potrebou pomáhať iným, pričom riziko ďalej zvyšujú aj hostilita, súťaživosť, túžba po úspechu alebo necitlivosť k okoliu. Situáciu zhoršuje kombinácia pracovnej záťaže a stresu zo súkromného života spolu s absenciou protektívnych faktorov, akými sú záujmy, oddychové aktivity či sociálna podpora. Z hľadiska pohlavia sú vyhorením častejšie ohrozené ženy, čo súvisí s kumuláciou profesijných a domácich povinností, výchovou detí a snahou byť rovnako výkonne v práci i v rodine. Vyšší výskyt sa opisuje aj u ľudí, ktorí sa práci venujú s nadmerným nasadením, kladú na seba neustále vyššie požiadavky a očakávajú, že práve práca bude jediným zdrojom zmyslu ich života. K rizikovým činiteľom patrí aj postupná strata ideálov, frustrácia z nenaplnenia existenciálnych potrieb či potreby spoločenského uznania, ako aj tzv. teror príležitostí - stav, keď človek nedokáže odolávať množstvu ponúk a výziev, nedokáže si stanoviť realistické hranice svojich možností, čo vedie k napätiu, zneisteniu a obavám (Kebza, Šolcová, 2003). K významným faktorom vyhorenia patrí pracovné prostredie, charakter práce, pracovné podmienky a kvalita medziľudských vzťahov. Nepriaznivo pôsobí dlhodobé preťažovanie, stresujúce podnety, prísny či autoritatívny režim, častá kontrola, nízka miera autonómie, ale aj konflikty, nedorozumenia, absentujúca úcta a podpora či nedostatok komunikácie. Významnú úlohu zohráva aj nedostatočné spoločenské uznanie v kontraste so stúpajúcimi požiadavkami - nedostatok ocenenia, rešpektu, pochvaly, spolupráce či zmyslu pre spoločnú zodpovednosť. Najviac sa syndróm vyhorenia vyskytuje v pomáhajúcich profesiách, kde prevláda „výdaj nad príjmom“, teda vysoké osobné a emocionálne nasadenie pri súčasnom nedostatku uznania, pričom zamestnanci sú dlhodobo vystavení bezprostrednému kontaktu s ľuďmi v náročných situáciách.

Podľa Maslach (1976) sa syndróm vyhorenia rozvíja v štyroch fázach. Najskôr sa prejavuje idealistickým nadšením, túžbou rozdať sa a dlhodobým preťažovaním, sprevádzaným zvýšenou túžbou po sebarealizácii. Neskôr nastupuje emocionálne a fyzické vyčerpanie, stagnácia, únava, pochybnosti, dezorganizácia hodnôt a popieranie vznikajúceho napätia. Tretia fáza sa vyznačuje dehumanizáciou druhých, úbytkom empatie, nevrlosťou, agresivitou a cynizmom ako obranným mechanizmom. Vo štvrtom, terminálnom štádiu sa objavuje celkové vyčerpanie, negativizmus, ľahostajnosť, pocity prázdnoty, zúfalstvo, oslabená imunita a zvýšený výskyt somatických problémov, úzkosti či depresie.

Podrobnejší dvanásťstupňový priebeh vyhorenia opísal John W. James (Křivohlavý, 1998, 62), ktorý zahŕňa postupné zvyšovanie nasadenia a snahu ukázať sa v pozitívnom svetle, odmietanie delegovania, zanedbávanie vlastných potrieb, absolutizáciu práce, deformáciu hodnôt, popieranie napätia, stratu nádejí, vyhľadávanie útekových stratégií, viditeľné zmeny v správaní, depersonalizáciu, prázdnotu, depresívne prežívanie až po úplné fyzické, psychické a emocionálne vyčerpanie, sprevádzané stratou energie, motivácie a pocitom nezmyselnosti. Napokon, ako uvádza Křivohlavý(Křivohlavý, 1998, 65), k vyhoreniu prispieva aj prežívanie neprekonateľnej prekážky, ktorá sa stáva zdrojom stresu a vedie k mobilizácii síl, po ktorej nasleduje distres vznikajúci v dôsledku prevahy stresorov nad salutormi. Nasleduje frustrácia potrieb, ktorá sa môže kumulovať a zasahovať fyzické, psychické aj sociálno-psychologické potreby, pričom najčastejšie ide o frustráciu existenciálnej potreby zmysluplnosti života, práce či prežívania. Riziko zvyšuje aj nadmerná emocionálna záťaž a prostredie či organizácia práce, ktoré môžu psychickú záťaž tlmiť alebo naopak výrazne zosilňovať.

Významné teoretické vysvetlenie ponúka Model pracovných požiadaviek a zdrojov (Demerouti et al., 2001). Tento model predpokladá, že vyhorenie vzniká vtedy, keď dochádza k nerovnováhe medzi pracovnými nárokmi a dostupnými zdrojmi. Pracovné nároky predstavujú aspekty práce vyžadujúce sústavnú fyzickú, kognitívnu alebo emocionálnu námahu a sú kľúčovými prediktormi následného vyčerpania a zdravotných ťažkostí. Pracovné zdroje - fyzické, psychologické, sociálne a organizačné - napomáhajú zvládať pracovnú záťaž, redukovať negatívny dopad nárokov a podporovať profesionálny aj osobnostný rast (napr. supervízia či odborný rozvoj). Základným východiskom modelu je teda predpoklad, že vyhorenie vzniká v situácii, keď sú požiadavky vysoké a zdroje obmedzené (Chirico, 2016).

Empirické poznatky zároveň potvrdzujú, že pravdepodobnosť vzniku vyhorenia je determinovaná kombináciou organizačných a individuálnych faktorov (Cummings et al., 2021). Medzi organizačné faktory patrí najmä nadmerný počet klientov na jedného pracovníka, obmedzená možnosť ovplyvňovať pracovné postupy, pocit nespravodlivosti, nízka podpora zo strany kolegov či nadriadených a nedostatočné zaškolenie (Newall, MacNeil, 2010). V prostredí ľudských služieb nie je nezvyčajné, že jeden pracovník nesie zodpovednosť za neprimerane veľký počet klientov, čo súvisí s nedostatkom personálu alebo ekonomickými obmedzeniami.

Pokiaľ ide o individuálne charakteristiky, osobnostné črty ako rezervovanosť, neasertivita či submisívnosť zvyšujú zraniteľnosť odborníkov v pomáhajúcich profesiách voči vyhoreniu (Maslach, 1982). Rizikové je aj nízke sebavedomie, potreba kontroly alebo ťažkosti s nastavovaním hraníc (McAlpine, 2021). Výskumy zároveň poukazujú na vzťah medzi vekom a vyhorením: mladší a menej skúsení pracovníci sú voči nemu náchylnejší. Rupert, Miller a Dorociak (2015) zdôrazňujú, že vyšší vek je spojený s väčšou zrelosťou, nahromadenými skúsenosťami a rozvinutejšími osobnými zdrojmi, ktoré uľahčujú zvládanie pracovných požiadaviek.

3 NÁSLEDKY SYNDRÓMU VYHORENIA

Syndróm vyhorenia má rozsiahle dôsledky na fyzické, psychické, sociálne aj pracovné fungovanie jednotlivca a prejavuje sa komplexným súborom symptómov, ktoré sa postupne kumulujú a zasahujú do profesionálneho aj osobného života (Danhof-Pont, van Veen, Zitman, 2011). Medzi fyzické následky patria predovšetkým kardiovaskulárne ochorenia, muskuloskeletálne poruchy, gastrointestinálne ťažkosti a zvýšená náchylnosť na infekcie, zatiaľ čo psychologické dôsledky zahŕňajú nespavosť, depresívne a úzkostné prežívanie, pocity zlyhania či náchylnosť k zneužívaniu psychoaktívnych látok. Profesijná sféra je charakteristická poklesom pracovnej spokojnosti, znížením výkonu, častejšími absenciami a zvýšeným počtom žiadostí o predčasný odchod do dôchodku.

Typickým znakom vyhorenia je pretrvávajúca únava, nárast negatívnych reakcií voči ľuďom i práci, pokles motivácie a znižovanie efektivity, čo vedie k pocitu zbytočnosti vlastnej činnosti a k postupnému vzďaľovaniu sa od pracovných úloh. Kľúčovým prejavom je chronická psychická aj fyzická únava, ktorá sa na psychickej úrovni prejavuje negatívnymi emóciami, ako sú úzkosť, bezmocnosť, smútok, anhedónia, podráždenosť či subdepresívna až depresívna nálada; zároveň dochádza k zhoršeniu koncentrácie, pamäťových funkcií a kreativity. Na telesnej úrovni sa vyčerpanosť manifestuje zvýšenou chorobnosťou, svalovým napätím, bolesťami hlavy, tráviacimi problémami, poruchami spánku, palpitáciami či nechutenstvom, pričom tieto symptómy často vedú k samoliečbe a k nárastu rizikových stratégií, ako je nadmerné užívanie liekov, alkoholu či nevhodných stravovacích návykov (Salvagioni, 2017). V sociálnej oblasti sa vyhorenie prejavuje útlmom sociability, poklesom empatie, redukciou kontaktov a nárastom konfliktov, pričom rodina a priatelia môžu prestávať pôsobiť ako zdroj opory a byť vnímaní skôr ako ďalšia záťaž. Vyhorenie zároveň vedie k úbytku vnútorného nadšenia a motivácie, ktorý sa prehlbuje rastúcou únavou, pracovným stereotypom, nedostatočným ohodnotením či stagnáciou kariérneho vývoja, čo vedie k strate zmyslu v pracovných úlohách a k prenosu týchto postojov aj do ďalších oblastí života. Neschopnosť dosahovať požadované výsledky vyvoláva frustráciu sprevádzanú hnevom, smútkom, agresivitou či bezmocnosťou a postupne vedie k rozvoju cynizmu, depersonalizácie a negatívnych postojov voči klientom, kolegom či pracovnému prostrediu, čím sa zvyšuje stres a prehlbuje vyčerpanosť. Vyhorenie negatívne vplýva aj na kognitívne funkcie, schopnosť sústredenia, rozhodovania a pamäťové procesy, pričom neustály tlak na výkon a nadmerné množstvo úloh zvyšujú kognitívnu záťaž a vyvolávajú stres z nedodržania termínov, z hodnotenia vlastnej kompetentnosti alebo z neistoty, či bude jedinec schopný splniť očakávania. Dôsledkom je pokles pracovnej efektivity, oslabenie sebadôvery a narušené vnímanie vlastnej kompetentnosti, čo sa prejavuje chybovosťou, prokrastináciou, neschopnosťou dokončovať úlohy a pretrvávajúcim pocitom neadekvátnosti, pričom objektívne hodnotenie výkonu môže byť v dlhodobom horizonte skreslené meniaci-mi sa podmienkami a pracovnými nárokmi. Emočná nestabilita, podráždenosť a vyčerpanosť narúšajú medziľudské vzťahy, čo vedie k narastaniu konfliktov, uzatváraniu sa pred druhými či k degradovaniu ich hodnoty; rastúci odstup a nedorozumenia môžu vyústiť do izolácie, rivality alebo úplného odcudzenia, pričom tieto ťažkosti sa prenášajú aj do rodinného života v podobe straty záujmu o partnera, deti či priateľov, chronickej únavy, poklesu sexuálnej apetencie a zanedbávania vlastných potrieb. Vyčerpanie zároveň podporuje používanie nezdravých copingových stratégií, ako je nadmerná konzumácia kávy, energetických nápojov, tučných jedál, alkoholu alebo psychoaktívnych látok, pričom starostlivosť o vlastné zdravie sa dostáva na okraj záujmu, čo ďalej prehlbuje fyzické aj psychické dôsledky vyhorenia (Maroon, 2012, 78). Nadmerné pracovné zaťaženie a neschopnosť oddeliť prácu od súkromia vytvárajú chronický stres a bránia regenerácii, pričom workoholizmus akceleruje rozvoj vyhorenia, prehlbuje únavu a prispieva k narušeniu osobného života. K sprievodným javom vyhorenia patrí nespavosť, pokles výkonnosti, negatívne sebahodnotenie a pocity viny, ktoré znižujú celkovú subjektívnu pohodu a môžu viesť k dlhodobému zhoršeniu kvality života. Dlhodobý stres a psychická záťaž napokon môžu vyústiť do závažných zdravotných komplikácií, akými sú depresívne poruchy, metabolické ochorenia, kardiovaskulárne problémy či chronické tráviace ťažkosti, pričom pri ťažkých formách vyhorenia môže byť nevyhnutná farmakologická liečba, najmä ak nadobúda charakter depresívneho ochorenia.

4 PREVENCIA SYNDRÓMU VYHORENIA V POMÁHAJÚCICH PROFESIÁCH

V kontexte prevencie syndrómu vyhorenia v pomáhajúcich profesiách sa často objavuje otázka, kde končí prirodzený pocit uspokojenia z poskytovania pomoci a začína nezdravé uspokojovanie vlastných potrieb prostredníctvom výkonu profesie alebo instrumentalizácie tých, ktorým pomáhame. Kľúčovou otázkou zostáva: robíme to pre druhého, alebo pre seba? Prejav vďaky či viditeľný pokrok klienta môže byť príjemný, no zároveň signalizuje potrebu ukončenia pomáhajúcej aktivity. Ako upozorňuje Kopřiva (2024, 25), „ak pomáhajúci často cíti potrebu byť ľuďom potrebný, nie je to to isté ako rád pomáhať ľuďom."

Neustála orientácia na potreby druhých môže viesť k odsunutiu vlastných potrieb a k závislosti na vonkajšom uznaní, čím vzniká začarovaný kruh. Pre jeho prerušenie je nevyhnutné, aby pomáhajúca osoba vo vzťahoch prežívala a pomenúvala aj svoje vlastné potreby, pocity a túžby, ktoré sa nemusia vždy zhodovať s očakávaniami druhých. S rastúcim uvedomovaním si telesných, duševných a duchovných potrieb sa posilňuje hranica medzi osobami a zvyšuje schopnosť udržať zdravý odstup.

Zdravá hranica nie je rigidná ani sebecká; je flexibilná, rešpektujúca a láskavá voči potrebám druhého, zároveň však zohľadňuje aj vlastné potreby. Uvedomovanie si vlastných potrieb predstavuje prvý krok k ich zosúladení s vyznávanými hodnotami a k rozvoju schopnosti vedomej voľby, ktorá umožňuje hovoriť jasné „áno" aj „nie" bez ohrozenia integrity vzťahu.

V pomáhajúcich profesiách narastá stále väčšia potreba venovať pozornosť zvládaniu a prevencii syndrómu vyhorenia (Mullenbach, Skovholt, 2000). Napriek neustálym výzvam k činom bol pokrok v tejto oblasti skromný a mnoho zostáva ešte urobiť (Leiter, Bakker, Maslach, 2014). Keďže vyhorenie predstavuje časté a oslabujúce pracovné riziko, je nevyhnutné venovať sa jeho problematike a sprístupňovať efektívne stratégie prevencie.

Niekoľko kvantitatívnych štúdií naznačuje, že vonkajšie faktory, ako napríklad kontrola nad pracovnými úlohami, znižujú riziko vyhorenia (Rupert, Miller, Dorociak., 2015). Tí, ktorí majú pocit kontroly v práci, uvádzajú menšiu emocionálnu vyčerpanosť, nižšiu depersonalizáciu a väčší pocit osobného naplnenia. Podpora na pracovisku (napr. nadriadený alebo kolegovia) tiež pozitívne súvisí s osobným naplnením a zároveň znižuje emocionálne vyčerpanie a depersonalizáciu (Rupert, Miller, Dorociak., 2015).

Okrem pracovných zdrojov (ako je podpora na pracovisku) sú užitočnými nástrojmi prevencie aj osobné zdroje, ktoré si človek prináša do profesie, ako napríklad aktivity starostlivosti o seba a súvisiace kognitívne zvládacie stratégie (napr. sebauvedomenie, konštruktívny pohľad na svoju prácu, schopnosť reflektovať uspokojujúce zážitky) (Rupert et al., 2015). Aktivity starostlivosti o seba, ako sú rekreačné aktivity a záujmy, udržiavanie rovnováhy medzi pracovným a osobným životom či sociálna podpora (vrátane podpory zo strany rodiny a priateľov), boli identifikované ako užitočné (Rupert, Miller, Dorociak., 2015).

Hoci pojem starostlivosti o seba v odborných profesiách nie je v literatúre dostatočne etablovaný (Jiang, Topps, Suzuki, 2021), môže byť definovaný ako pokračujúci proces starostlivosti o seba, vedomého úsilia robiť veci, ktoré udržiavajú, zlepšujú a obnovujú psychickú, emocionálnu, fyzickú a spirituálnu pohodu (Baker, Gabriel, 2021; Barnett, Homany, 2022). Zahŕňa, ale neobmedzuje sa len na stratégie fyzického charakteru (napr. cvičenie, výživa), psychologické a emocionálne (napr. sebasúcit), sociálne, spirituálne, voľnočasové a/alebo profesijné (napr. manažment pracovnej záťaže či odborný rozvoj) (Lee, Miller, 2013). Jednoducho povedané, aktivity starostlivosti o seba môžu zlepšovať duševnú pohodu, znižovať stres a predstavovať preventívny faktor proti vyhoreniu u pomáhajúcich profesionálov (Hricová, 2020; Rupert, Dorociak, 2019).

Výskumy zamerané na prevenciu syndrómu vyhorenia v pomáhajúcich profesiách identifikujú niekoľko kľúčových tém, ktoré zohrávajú významnú úlohu pri udržiavaní psychickej pohody a prevencii syndrómu vyhorenia. Medzi najpodstatnejšie z nich patria:

Téma 1: Voľno a čas mimo práce

V niektorých výskumoch sa respondenti explicitne vyjadrovali k potrebe čerpania dovolenky a času stráveného mimo pracovného prostredia, ktorý im umožňuje úplne sa odpútať od pracovných povinností a udržiavať nevyhnutnú rovnováhu medzi pracovným a osobným životom. Až 92 % respondentov vo výskume Warrena, Schafera, Crowleyho a Olivardiu (2012) uviedlo, že voľno, zapájanie sa do voľnočasových aktivít a dovolenky predstavujú významné formy sebaopatery, ktoré prispievajú k prevencii vyhorenia. V štúdii Beitel et al. (2018) 26 % účastníkov zdôraznilo dôležitosť čerpania plateného voľna na oddych, pričom 23 % respondentov považovalo za prospešné aj vedomé vyhradenie času na krátke prestávky počas pracovného dňa. Jeden z účastníkov tejto štúdie uviedol, že sa „naučil aspoň niekoľkokrát denne zavrieť dvere kancelárie a jednoducho sa nadýchnuť“ (Beitel et al., 2018, 214). Iný respondent doplnil: „Vziať si voľno mi výrazne pomáha a vždy cítim podporu v tom, aby som to urobil“ (Beitel et al., 2018, 213).

Téma 2: Voľnočasové aktivity

Viaceré štúdie poukazujú na význam zapájania sa do príjemných voľnočasových aktivít, ktoré nesúvisia s pracovnou rolou a predstavujú dôležitý ochranný faktor pred vyhorením. V štúdii Beitel et al. (2018) uviedlo 52 % respondentov, že zapájanie sa do príjemných aktivít im pomáha predchádzať vyhoreniu. Účastníci uvádzali rôzne činnosti, ako napríklad varenie, pečenie, trávenie času s domácimi zvieratami či sledovanie filmov. Výskum Lindo et al. (2015) zdôrazňuje, že účinné aktivity sebaopatery by mali byť prispôsobené individuálnym potrebám a preferenciám. Pre niektorých účastníkov to znamenalo častejšie stretávanie sa s priateľmi, zatiaľ čo iní preferovali trávenie času osamote. Magnuson, Norem, Wilcoxin zároveň poukazujú na dôležitosť rozmanitosti foriem sebaopatery, keď účastníci uvádzali aktivity ako počúvanie hudby, pravidelné masáže, manikúru či praktizovanie jogy: „Starám sa o seba prostredníctvom hudby. Každé dva týždne si doprajem masáž, každý týždeň manikúru a pravidelne cvičím jogu" (2018, 22).

Rôznorodosť voľnočasových aktivít bola potvrdená aj v štúdii Mullenbacha a Skovholta (2000, 238), kde účastníci spomínali čítanie detektívok, sledovanie filmov, športové aktivity či ručné práce, ako je pletenie a háčkovanie. Pre väčšinu účastníkov v štúdii Grafanaki et al. (2005) predstavovali voľnočasové aktivity cestu k vyváženejšiemu, zmysluplnejšiemu a spokojnejšiemu životu.

Téma 3: Pohybová aktivita a cvičenie

Pohybová aktivita sa ako významný ochranný faktor objavila v šiestich z deviatich analyzovaných štúdií (Beitel et al., 2018; Grafanaki et al., 2005; Lindo et al., 2015; Magnuson, Norem, Wilcoxin, 2018; Mullenbach, Skovholt, 2000; Warren et al., 2012). Respondenti uvádzali široké spektrum aktivít, vrátane jogy, chôdze, plávania, kajakovania či záhradkárčenia. Jeden z účastníkov štúdie Mullenbacha a Skovholta (2000, 238) uviedol: „Pomáha mi robiť veci osobne, najmä fyzické aktivity. Sú dni, keď jednoducho cítim potrebu ísť von a intenzívne bicyklovať alebo rýchlo kráčať." Iný účastník zdôraznil význam jogy a kajakovania ako foriem relaxácie po práci (Beitel et al., 2018, s. 213). V štúdii Lindo et al. (2015, 38) respondent poznamenal: „Rád trávim aspoň 30 minút denne fyzickou aktivitou alebo pobytom vonku so svojím synom". Lindo et al. (2015) poukazujú na cvičenie ako na účinný spôsob uvoľňovania nahromadeného napätia, zatiaľ čo zistenia Beitel et al. (2018) potvrdzujú jeho význam ako formy relaxácie a prevencie vyhorenia.

Téma 4: Primeraná hodnotová perspektíva

V prevencii syndrómu vyhorenia je kľúčové mať jasno vo vlastnom hodnotovom systéme a zároveň si stanoviť realistické, zmysluplné a životne relevantné ciele (Křivohlavý, Pečenková, 2004). U odborníkov v pomáhajúcich profesiách, ktorí disponovali pozitívnymi hodnotami a konštruktívnym postojom voči svojmu povolaniu, bolo jednoduchšie predchádzať vyhoreniu alebo zmierňovať jeho negatívne dôsledky (Beitel et al., 2018; Grafanaki et al., 2005; Hou, Skovholt, 2020).

Poznanie vlastných hodnôt a presvedčení pomáhalo odborníkom v pomáhajúcich profesiách, najmä counselorom, upevniť svoj pohľad na prácu a zachovať si sebadôveru vo vlastné kompetencie aj v situáciách, keď čelili nejasnostiam v poradenských sedeniach. „Mám veľmi silné presvedčenie, že každý človek má v sebe to, čo potrebuje na zmenu a zlepšenie, a ja spolu s ním dokážem toto objaviť." (Hou, Skovholt, 2020, 394). „Cítim, že mám schopnosť vidieť za utrpenie a vidieť krásu a celistvosť v ľuďoch" (Hou, Skovholt, 2020, 394). Účastníci výskumu tiež poukazovali na pozitívne naladenie a lásku k svojej práci. Záujem o prácu a vášeň pre povolanie pôsobili ako ochranné faktory pred vyhorením: „Myslím, že tým, že to milujem, robím to, čo robím" (Magnuson, Norem, Wilcoxin, 2018, 21) a zároveň zdôraznili význam toho, aby človek nebral sám seba príliš vážne a udržiaval si zmysel pre humor (Warren et al., 2012).

Téma 5: Formálna a neformálna vzťahová podpora

Podpora získaná prostredníctvom rôznych vzťahov bola v mnohých výskumoch opísaná ako ochrana proti vyhoreniu (Beitel et al., 2018; Grafanaki et al., 2005; Oser et al., 2013; Warren et al., 2012). Prepojenie s rodinou, priateľmi, kolegami a supervízormi pôsobilo ako ochranný faktor a pomáhalo odborníkom v pomáhajúcich profesiách udržiavať si duševnú pohodu a kvalitu života (Hou, Skovholt, 2020). Hou a Skovholt skúmali charakteristiky vysoko odolných odborníkov a zistili, že prepojenosť bola hnacou silou odolnosti, pričom osobné aj profesionálne vzťahy boli kľúčové: „Ak nemôžem hovoriť s ľuďmi a byť im blízko, mať priateľstvá a blízke vzťahy s rodinou, trpím tým. Keď tieto veci robím, mám viac energie a môj život je kvalitnejší“ (Hou, Skovholt, 2020, s. 391). Účastník inej štúdie uviedol: „Robíme veľa rodinných osláv. Spoločensky sa stretávame, pozývame ľudí na večeru“ (Mullenbach, Skovholt, 2000, s. 240). Účastníci štúdie Oser et al. (2013) zdôraznili význam možnosti obrátiť sa na kolegov, konzultovať s nimi problémy a vzájomne si pomáhať. Networking s kolegami počas odborného vzdelávania bol často považovaný za prínosnejší než samotný obsah workshopu (Magnuson, Norem, Wilcoxin, 2018), a stretnutia celého tímu, poskytujúce priestor na vzájomné prepájanie, boli niečím, po čom účastníci túžili (Beitel et al., 2018). Lindo et al. (2015) vo svojom výskume zdôraznili dôležitosť pravidelných osobných kontaktov s kolegami z pracoviska aj s rodinou.

Téma 6: Rovnováha medzi pracovným a osobným životom a jasne stanovené hranice

Rovnováha medzi pracovným a osobným životom a jasne stanovené hranice boli naprieč štúdiami identifikované ako kľúčové faktory prevencie vyhorenia. Poradcovia uvádzali priaznivé účinky vytvárania a udržiavania tejto rovnováhy (Beitel et al., 2018) a zdôrazňovali, že je nevyhnutné nechávať prácu v práci, aby sa mohli naplno venovať starostlivosti o seba a zmysluplným aktivitám mimo zamestnania.

Voľnočasové aktivity prinášali odborníkom pocit harmónie a rovnováhy (Grafanaki et al., 2005), pričom Lindo et al. (2015) označili rovnováhu za kľúč k udržaniu duševnej pohody. Nastavovanie hraníc, sebaochrana a uvedomovanie si vlastných limitov boli nevyhnutné pre zachovanie odolnosti. Vyvažovanie počtu klientov a stanovenie hraníc okolo odpracovaných hodín týždenne bolo v štúdii Warren et al. označené ako významné: „Zruším deň s klientmi, ak som naozaj vyčerpaný/á“ (Hou, Skovholt, 2020, 184). Counselorom na začiatku kariéry sa odporúčalo udržiavať rovnováhu medzi pracovným a osobným životom prostredníctvom oddychu, starostlivosti o seba a dodržiavania hraníc (Warren et al., 2012). Napokon, poradcovia na vedúcich pozíciách s minimálne 15-ročnou praxou uviedli: „Snažím sa zostať v rovnováhe, ako najlepšie viem, uprednostňujem rodinu, moje profesijné aktivity prichádzajú až potom“ (Magnuson, Norem, Wilcoxin, 2018, 22).

Téma 7: Všímavosť (mindfulness)

Všímavosť (mindfulness) v counselingu znamená, že poradcovia zameriavajú svoju pozornosť na prítomný okamih a všímajú si svoje myšlienky, pocity a telesné vnemy. Takýto prístup podporuje reguláciu emócií, čo vedie k zníženiu stresu a úzkosti a k efektívnejšiemu zvládaniu pracovnej záťaže. V konečnom dôsledku všímavosť významne prispieva k zlepšeniu duševnej pohody (Epstein, 1999, s. 836-839). Všímaví poradcovia využívajú rôzne stratégie na posilnenie schopnosti priebežne sledovať svoje vnútorné prežívanie, uvedomovať si implicitné poznatky a hlboko zakorenené hodnoty. Dokážu zachytiť jemné signály prostredníctvom periférnej pozornosti, vnímať nové informácie a flexibilne reagovať v bežných aj náročných situáciách. Takéto uvedomelé fungovanie im umožňuje včas rozpoznať potrebu spomaliť, oddýchnuť si alebo vyhľadať podporu - čo predstavuje kľúčové ochranné faktory v prevencii syndrómu vyhorenia.

Mullenbach a Skovholt (2000) vo svojej štúdii ukázali, že všímavosť či uvedomovanie si seba a situácie výrazne pomáha predchádzať vyhoreniu. Poradcovia v rôznych vnútorných aj vonkajších záťažových situáciách dokázali vnímať, ako na nich stresory pôsobia, a často odhaľovali aj osobné témy, ktorým bolo potrebné venovať pozornosť. Kľúčové bolo, aby si odborníci tieto momenty včas uvedomili a mohli s nimi aktívne pracovať. Všímavosť im zároveň umožňovala sledovať vlastnú pohodu a identifikovať potrebu starostlivosti o seba. Toto uvedomenie posilňovalo aj ich schopnosť podporovať klientov na ceste k väčšej sebareflexii a k budovaniu stratégií sebapodpory (Lindo et al., 2015).

Uvedomovanie si sa týkalo aj zdravého porozumenia hraniciam zodpovednosti: „Môžete urobiť len toľko a klient musí pracovať tiež“ (Warren et al., 2012, 187). V štúdii Oser et al. (2013) účastníci zdôrazňovali dôležitosť vnímania vlastného stavu - či sú unavení, potrebujú prestávku alebo rozhovor s supervízorom. Schopnosť uvedomiť si tieto signály pomáhala counselorom rozpoznať okamih, kedy je potrebné vyhľadať podporu, čo výrazne prispievalo k prevencii vyhorenia. Jergensen vo svojom výskume (2018) zistil, že všímavosť patrila medzi najčastejšie využívané zručnosti odborníkov. Vďaka nej dokázali zostať prítomní v každodennom živote, vnímať dianie vo vonkajšom svete aj vlastné vnútorné procesy.

Zapájanie sa do aktivít založených na všímavosti umožňovalo odborníkom v pomáhajúcich profesiách prehlbovať kontakt so sebou samými, čo podporovalo rozvoj sebareflexie (Jergensen, 2018). Schopnosť byť v spojení so sebou bola kľúčová - umožňovala im úprimne rozpoznať, keď nie sú pre konkrétneho klienta najvhodnejšou voľbou, a robiť rozhodnutia prospešné pre obe strany. V Jergensenovej štúdii poradcovia opisovali prínosy všímavosti slovami: „Všímavosť mi veľmi pomohla spomaliť myšlienky a uzemniť sa; bola kľúčová pri zvládaní stresu aj pri nastavovaní hraníc“ či „Všímavosť bola základom zvyšovania uvedomenia si mojich emócií, vzťahov a smerovania, kam ich chcem posunúť“ (Jergensen, 2018, 195).

Téma 8: Spiritualita

Výskumy naznačujú, že spiritualita môže zohrávať významnú ochrannú úlohu v prevencii syndrómu vyhorenia. Samotná spiritualita je považovaná za tvorivý spôsob zvládania životných problémov, konfliktov a stresu. Pargament tieto tvorivé spôsoby opisuje ako „hľadanie toho, čo je posvätné“ a chápe ich ako úsilie rozpoznať v bežných situáciách niečo výnimočné. Posvätné sa podľa neho vyznačuje uvedomením si hraníc vlastnej ľudskosti a rešpektom, úctou či uznaním voči tomu, čo tieto hranice presahuje (Pargament, 2001).

Z pohľadu psychológie ako opisnej vedy spiritualita sama osebe nie je ani dobrá, ani zlá - jej význam závisí od toho, na čo sa vzťahuje. Cieľom psychológie je priviesť človeka k stavu well-being, teda k duševnej a telesnej pohode, a podporiť proces dozrievania osobnosti.

Kresťanstvo ako zjavené náboženstvo ponúka ucelený hodnotový systém a konečný zmysel. Křivohlavý zdôrazňuje, že kresťanstvo „dáva človeku možnosť voľby, slobodu rozhodovania. Ak vykročí, dáva mu silu a naznačuje mu, kadiaľ vedie cesta k cieľu… pripomína mu, že za svoj život a tým i za svoju voľbu nesie plnú zodpovednosť“ (Křivohlavý, 2006, 155). Vo výskume Hou a Skovholt (2020) pracovníci pomáhajúcich profesií opisovali, že duchovné presvedčenia a hodnoty im poskytovali rámec, prostredníctvom ktorého lepšie rozumeli sebe, druhým aj ľudskému utrpeniu. Takéto ukotvenie im pomáhalo hľadať zmysel v náročných pracovných aj osobných situáciách (Hou, Skovholt, 2020, s. 394). Spiritualita bola pre viacerých účastníkov štúdie dôležitým nástrojom pri prvých príznakoch vyhorenia a slúžila ako signál, aby si dopriali čas na meditáciu či uvoľnenie, čo im pomohlo získať odstup a opäť nadobudnúť vnútornú rovnováhu (Lindo et al., 2015).

Účastníci v štúdii Grafanaki et al. (2005) zdôrazňovali, že krátke spirituálne momenty a modlitba im prinášali hlbší pocit rovnováhy, zmyslu a prepojenia s ostatnými ľuďmi. Celkovo spiritualita alebo pocit „ukotvenia v niečom väčšom“ pomáhali odborníkom zostať pevnými, nádejnými a odolnými (Warren et al., 2012). Predstavuje tak významný zdroj emocionálnej stability, vnútorného pokoja a zmyslu, ktoré sú kľúčové pri ochrane pred vyhorením.

V štúdii Beitel et al. (2018, s. 214) bolo v rámci prevencie syndrómu vyhorenia identifikovaných niekoľko systémových opatrení, ktoré môžu významne prispieť k jeho predchádzaniu a/alebo efektívnejšiemu zvládaniu. Medzi najdôležitejšie patrili zlepšenie komunikácie v rámci celého tímu vrátane oceňovania podnetov od counselorov, zvýšenie dostupnosti plateného voľna a posilnenie supervízie.

Tema 9: Supervízia

Podľa Matouška (2013) je supervízia odborne vedené stretnutie medzi supervízorom a supervidovanými osobami. Môže mať individuálnu alebo skupinovú formu. Jej hlavnou úlohou je podpora reflexie a sebareflexie, ponúknutie iného pohľadu na situácie a pomoc pri zdokonaľovaní pracovných postupov. Zároveň poskytuje priestor na ventiláciu prípadných nezdarov či pracovných problémov. V kontexte syndrómu vyhorenia slúži supervízia najmä ako prevencia. Supervidovaní majú bezpečný priestor, kde sa môžu otvorene zveriť a hovoriť o záťaži. Supervízor si môže všimnúť aj prvé príznaky vyhorenia, upozorniť na ne a spoločne so supervidovaným na nich ďalej pracovať. Tým zároveň pomáha riešiť pracovné nezhody či konflikty a prispieva k budovaniu pozitívnej a podpornej pracovnej atmosféry.

Supervízia sa ukázala ako účinný nástroj pri minimalizovaní vyhorenia - podľa štúdie Warren et al. (2012) pomohla jednej tretine účastníkov. Účastníci štúdie Oser et al. (2013) uviedli, že predchádzať vyhoreniu je možné prostredníctvom emocionálnej podpory spolupracovníkov a kvalitnej supervízie. Poradcovia v štúdii Beitel et al. (2018) zdôraznili význam supervízie pri znižovaní stresu, získavaní novej pracovnej perspektívy a odporúčali jej zavedenie ako systémového opatrenia na prevenciu vyhorenia.

Prvou formou supervízie je introspektívna supervízia, ktorá spočíva v zaznamenávaní vlastných emócií a myšlienok po každom sedení, kurze či pracovnom stretnutí. Táto prax je mimoriadne užitočná najmä v začiatkoch profesionálnej dráhy, pričom neskôr môže slúžiť najmä v situáciách, keď konkrétna udalosť vyvolá vnútorné znepokojenie a poukazuje na vlastné nevedomé témy.

Druhou formou supervízie je horizontálna supervízia prostredníctvom zdieľania s kolegom vykonávajúcim podobnú profesiu. V mnohých prípadoch postačuje pozorné a empatické počúvanie bez potreby poskytovania odporúčaní; samotné zdieľanie často napomáha vnútornému objasneniu. Pri zdieľaní s osobami mimo odboru existuje riziko, že nekompetentné rady môžu zhoršiť psychické prežívanie.

Treťou a najprofesionálnejšou formou supervízie je odborná supervízia poskytovaná skúseným profesionálom alebo v rámci pravidelných mesačných supervíznych skupín. Táto forma umožňuje systematicky spracovávať pracovné prežívanie, ktoré by v prípade absencie reflektívneho spracovania mohlo viesť k dlhodobému psychickému preťaženiu a vyhoreniu (Wallbank, 2013).

Takisto skupinová supervízia sa v odbornej literatúre opakovane ukazuje ako efektívny prístup pri práci s odborníkmi vystavenými riziku syndrómu vyhorenia, pretože poskytuje štruktúrovaný priestor na reflexiu, zdieľanie záťaže a posilňovanie profesionálnych zdrojov. Výskumy poukazujú na to, že pravidelné stretnutia v skupinovej supervízii znižujú úroveň emocionálneho vyčerpania, podporujú zvládanie pracovného stresu a zvyšujú profesionálnu spokojnosť prostredníctvom bezpečného prostredia pre dialóg a kolektívne riešenie problémov (Lee et al., 2020). Podporné skupiny založené na princípoch svojpomoci a pozitívnej psychológie zároveň umožňujú odborníkom rozvíjať nové uvedomenia o sebe a svojej práci, posilňovať rezilienciu, prehlbovať vnímaný pocit vlastnej účinnosti a rozširovať kompetencie v oblasti emocionálnej inteligencie, optimizmu, kreativity a sebahodnoty (Seligman, Csikszentmihalyi, 2000). Tieto procesy sú kľúčové najmä v profesiách s vysokou mierou emocionálneho nasadenia, kde supervízia podporuje zdravé zvládanie záťaže a spontánny autentický prejav v profesionálnom kontexte.

Cieľom skupinovej supervízie je vytvoriť podmienky pre spoločnú reflexiu, vzájomnú podporu a tvorivé spracovanie osobných a pracovných skúseností ako formu primárnej prevencie vyhorenia (Hawkins, Shohet, 2012). Takéto skupiny poskytujú odborníkom možnosť zastaviť sa, pomenovať svoje prežívanie, získať spätnú väzbu, konfrontovať nefunkčné vzorce správania a zároveň budovať pocit spolupatričnosti, ktorý predstavuje významný protektívny faktor proti chronickému stresu (Bernard, Goodyear, 2019). Stretnutia sa zvyčajne realizujú v pravidelných intervaloch, v stabilnom a psychologicky bezpečnom prostredí, pričom trvajú približne hodinu až hodinu a pol, čo umožňuje dostatočný priestor pre individuálnu aj skupinovú reflexiu (Gunn, Pistole, 2012).

Techniky používané v rámci skupinovej supervízie zahŕňajú najmä aktívne počúvanie, podporu reflexívneho dialógu, spoločné riešenie problémov, prácu s telom a prvky psychotelesného prístupu typické pre Gestalt orientáciu (Joyce, Sills, 2018). Tieto metódy podporujú zvýšenú citlivosť k vlastnému prežívaniu, rozvíjanie vnútornej regulácie a budovanie odolnosti voči stresu, čo prispieva k znižovaniu rizika vzniku alebo prehlbovania syndrómu vyhorenia.

5 ÚLOHA COUNSELINGU V PREVENCII A ZVLÁDANÍ SYNDRÓMU VYHORENIA

Syndróm vyhorenia predstavuje významné riziko pre odborníkov v pomáhajúcich profesiách, ktorých práca je charakterizovaná vysokou mierou emocionálneho zaťaženia a dlhodobým kontaktom s utrpením klientov. Výskumy ukazujú, že vyhorenie nevzniká náhle, ale je dôsledkom postupného nahromadenia stresu, emocionálnej únavy a nedostatočnej regulácie pracovných nárokov (Skovholt et al., 2001). Tento proces vzniká ako dôsledok dlhodobého nesúladu medzi pracovnými požiadavkami, osobnými zdrojmi a možnosťami regenerácie (Maslach, Leiter, 2016; Schaufeli, 2017).

Jedným z kľúčových problémov syndrómu vyhorenia je skutočnosť, že odborníci si ho často nedokážu včas uvedomiť a prehliadajú jeho počiatočné prejavy, hoci sú v stave výrazného fyzického a emocionálneho vyčerpania. Vyhorenie nie je pritom len individuálnym zlyhaním, ale výsledkom interakcie osobnostných faktorov, pracovného prostredia a organizačných podmienok (Schaufeli, 2017).

V tomto kontexte nadobúda význam systematická prevencia, ktorej neoddeliteľnou súčasťou môže byť counseling - profesionálny a reflexívny nástroj zameraný na podporu osobného rastu, zvládania pracovnej záťaže a rozvoja adaptačných stratégií. V prostredí pomáhajúcich profesií plní counseling nielen intervenčnú, ale aj preventívnu funkciu, pretože umožňuje odborníkom reflektovať vlastné prežívanie, pracovné hranice a profesijnú identitu.

Súčasné výskumy zdôrazňujú, že účinná prevencia vyhorenia si vyžaduje viac než len oddych alebo zníženie pracovného zaťaženia; kľúčová je najmä integrácia sebareflexívnych a sebaregulačných procesov priamo do profesionálnej praxe (Duncan, Pond, 2024). Counseling poskytuje bezpečný priestor na rozpoznávanie skorých signálov stresu a vyhorenia, čím podporuje včasnú intervenciu.

Jedným z hlavných prínosov counselingu je rozvoj sebauvedomenia a schopnosti reflektovať vlastné emocionálne a telesné reakcie. Výskumy ukazujú, že odborníci, ktorí dokážu včas identifikovať varovné signály vyhorenia - ako sú chronická únava, cynizmus či znížená empatia - vykazujú vyššiu mieru profesijnej udržateľnosti (Skovholt, Trotter-Mathison, 2010). Duncan a Pond (2024) poukazujú na význam všímavosti (mindfulness) a telesného uvedomovania ako účinných stratégií prevencie vyhorenia u poradcov a terapeutov. Tieto prístupy podporujú schopnosť regulovať stres nielen mimo pracovného času, ale aj priamo počas terapeutických stretnutí. Counseling, ktorý integruje prvky mindfulness, napomáha odborníkom zostať prítomnými, emocionálne stabilnými a menej náchylnými na vyčerpanie.

Ďalším významným aspektom counselingu v prevencii vyhorenia je podpora sebaregulácie a nastavovania profesionálnych hraníc. Pomáhajúce profesie sú často spojené s rizikom nadmernej angažovanosti, čo môže viesť k strate rovnováhy medzi pracovným a osobným životom. Counseling umožňuje odborníkom reflektovať vlastné hranice, očakávania a tendencie k nadmernému sebaobetovaniu. Schopnosť diferencovať medzi empatiou a nadmernou identifikáciou s klientom je považovaná za kľúčový ochranný faktor pred vyhorením (Figley, 2015). Prostredníctvom counselingu sa podporuje rozvoj adaptívnych copingových stratégií a realistických profesijných cieľov.

Významnú úlohu v prevencii vyhorenia zohráva aj pravidelná supervízia, ktorá je v odbornej literatúre opakovane označovaná za jeden z najefektívnejších nástrojov ochrany pred syndrómom vyhorenia. Supervízia a counseling majú spoločný reflexívny základ a vzájomne sa dopĺňajú - zatiaľ čo supervízia sa zameriava predovšetkým na profesionálny výkon a etické otázky, counseling poskytuje širší priestor na spracovanie osobného prežívania a emocionálnej záťaže. Podpora zo strany kolegov a profesijných komunít zároveň znižuje pocit izolácie, ktorý je častým sprievodným javom vyhorenia (Skovholt et al., 2001).

Integrácia counselingu do systému profesijnej podpory významne prispieva k vytváraniu udržateľného pracovného prostredia. Counseling umožňuje pomáhajúcim profesionálom reflektovať vlastné prežívanie, profesijné zaťaženie a vnútorné nastavenia v bezpečnom a podporujúcom vzťahovom rámci. Výskumy naznačujú, že schopnosť reflexie a sebauvedomenia patrí medzi kľúčové protektívne faktory pred vyhorením u poradcov a terapeutov (Skovholt, Trotter-Mathison, 2010). Prostredníctvom counselingového procesu môže klient – profesionál v pomáhajúcich profesiách – identifikovať konkrétne faktory prispievajúce k pocitom preťaženia, ako sú nedostatočné zručnosti v oblasti manažmentu času, vnútorné vzorce perfekcionizmu, nefunkčné pracovné vzťahy, nadmerná miera zodpovednosti či dlhodobo zanedbávané osobné potreby. Práve tieto latentné a často nevedomé faktory významne prispievajú k postupnému rozvoju syndrómu vyhorenia (Duncan, Pond, 2024).

V rámci counselingu sa klient učí techniky regulácie stresu, medzi ktoré patria dýchacie a relaxačné cvičenia, ako aj intervencie vychádzajúce z kognitívno-behaviorálnych prístupov. Tieto postupy sa zameriavajú predovšetkým na identifikáciu a modifikáciu nefunkčných presvedčení, ako sú rigidné výkonnostné schémy (napr. „musím všetko zvládnuť“, „nesmiem zlyhať“), ktoré sú opakovane spájané so zvýšeným rizikom vyhorenia (Beck, 2011; Maslach, Leiter, 2016). Pravidelné counselingové stretnutia podporujú rozvoj adaptívnych copingových stratégií, posilňujú sebareguláciu a zvyšujú odolnosť voči chronickému stresu.

Osobitný význam má v counselingovom procese práca na budovaní stabilnej sebahodnoty, ktorá nie je determinovaná výlučne pracovným výkonom, spätnou väzbou klientov či hodnotením zo strany profesijného prostredia. Výskumy poukazujú na to, že nadmerná identifikácia s pracovnou rolou a externými kritériami úspechu zvyšuje vulnerabilitu voči vyhoreniu (Skovholt et al., 2001). Counseling podporuje rozvoj autentickej profesijnej identity, v ktorej je výkon vyvážený sebarešpektom, sebasúcitom a realistickými očakávaniami voči sebe samému.

Jedným z častých problémov pomáhajúcich profesionálov je neschopnosť oddeliť pracovnú a súkromnú rovinu života. Narušené hranice medzi týmito oblasťami vedú k pretrvávajúcej aktivácii stresovej reakcie a obmedzujú regeneračné procesy (Schaufeli, 2017). Counseling v tomto kontexte zohráva významnú úlohu pri rozvíjaní schopnosti nastavovať zdravé osobné a pracovné hranice a podporuje schopnosť oddychovať bez pocitu viny. Postupné obnovovanie rovnováhy medzi pracovným nasadením a osobným životom je považované za jeden zo základných predpokladov dlhodobej profesijnej udržateľnosti (Skovholt, Trotter-Mathison, 2010).

Prevencia syndrómu vyhorenia zahŕňa komplexný súbor stratégií zameraných na udržiavanie rovnováhy medzi pracovnými nárokmi, individuálnymi potrebami a schopnosťou organizmu regenerovať. Kľúčovým prvkom je efektívne plánovanie a manažment času, založené na schopnosti rozlišovať medzi dôležitými a naliehavými úlohami, stanovovať realistické ciele a rešpektovať vlastné limity (Gregory et al., 2025). Rovnako významnú úlohu zohráva systematická psychohygiena a pravidelný oddych, ktoré zahŕňajú aktivity podporujúce fyzickú aj psychickú obnovu. Nedostatočná regenerácia je opakovane identifikovaná ako významný rizikový faktor chronickej únavy a vyhorenia (Maslach, Leiter, 2016).

Medzi ďalšie významné protektívne faktory patrí kvalitná sociálna opora a otvorená komunikácia. Zdieľanie pracovnej záťaže a emočne náročných skúseností s kolegami, supervízormi alebo blízkymi osobami znižuje pocit izolácie a umožňuje včas zachytiť prvé signály nadmerného stresu (Skovholt et al., 2001). V tomto zmysle možno counseling chápať ako súčasť širšieho systému profesijnej podpory, ktorý sa funkčne dopĺňa so supervíziou a kolegiálnou reflexiou.

Osobitnú pozornosť si zasluhuje práca s osobnými postojmi, najmä u jedincov so sklonom k perfekcionizmu a rigidným výkonnostným štandardom. Výskumy naznačujú, že flexibilnejšie a realistickejšie nastavenie očakávaní voči sebe samému zvyšuje psychickú odolnosť a znižuje riziko rozvoja vyhorenia (Beck, 2011; Duncan, Pond, 2024). Counseling vytvára priestor na uvedomovanie si osobných motívov, hodnôt a zmyslu profesijného pôsobenia, čím podporuje stabilnú vnútornú motiváciu.

V rámci podpory pohody pomáhajúcich profesionálov sa čoraz väčší dôraz kladie aj na telesne orientované prístupy. Zvýšená telesná uvedomelosť umožňuje efektívnejšiu reguláciu stresu a včasné rozpoznanie signálov preťaženia, čím prispieva k prevencii vyhorenia (Van der Kolk, 2015). Komplementárnym protektívnym faktorom je pravidelná pohybová aktivita zvolená podľa individuálnych preferencií, ako sú chôdza v prírode (nordic walking), tanec, plávanie či beh. Pohyb podporuje nielen fyzickú kondíciu, ale aj psychickú pohodu a odolnosť voči stresu, pričom jeho preventívne účinky sú najvýraznejšie pri včasnej intervencii pred rozvojom plne rozvinutého syndrómu vyhorenia (Schaufeli, 2017).

Pri zavádzaní sebaopatery sa u pomáhajúcich profesionálov často objavuje pocit viny, ktorý môže brzdiť preventívne snahy. Z odborného hľadiska je však kľúčové tento pocit reflektovať a systematicky s ním pracovať v rámci counselingového procesu. Ako uvádzajú Skovholt a Trotter-Mathison (2010), dlhodobo nie je možné poskytovať druhým kvalitnú pomoc bez pravidelnej starostlivosti o vlastné zdroje. Sebaopatera preto nepredstavuje prejav egoizmu, ale nevyhnutný predpoklad eticky a profesionálne udržateľnej pomáhajúcej praxe.

ZÁVER

Syndróm vyhorenia predstavuje komplexný jav, ktorý negatívne ovplyvňuje nielen samotného profesionála, ale aj jeho medziľudské vzťahy, rodinný život a vzťah k sebe samému. Efektívna prevencia vyhorenia je preto nevyhnutná a jej účinnosť je najvyššia v prípade systematického a komplexného prístupu. Kľúčovým predpokladom prevencie je jasné hodnotové ukotvenie, realistické a zmysluplné životné ciele, ako aj schopnosť napĺňať vlastné potreby, pričom je zároveň dôležité vnímať a podporovať potreby druhých.

Riziko vyhorenia možno významne znižovať prostredníctvom cielenej podpory, vytvárania reflexívnych priestorov a rozvoja osobných zdrojov, medzi ktoré patria sebauvedomenie, sebaregulácia, nastavovanie hraníc, všímavosť, spiritualita a udržiavanie rovnováhy medzi pracovným a osobným životom. Counseling sa v tomto kontexte ukazuje ako efektívny nástroj prevencie, keďže poskytuje bezpečný priestor na spracovanie emocionálnej záťaže, posilňuje profesijnú odolnosť a podporuje rozvoj zdravých vzťahov k sebe samému i ku klientom.

Prevencia syndrómu vyhorenia nie je jednorazovým opatrením, ale kontinuálnym procesom, ktorý vyžaduje integráciu osobných, profesijných a organizačných stratégií. Iba komplexný a systematický prístup umožňuje udržiavať profesionálov psychicky zdravých, efektívnych a schopných poskytovať kvalifikovanú podporu v pomáhajúcich profesiách.

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VIZUÁLNA KOMUNIKÁCIA PROSTREDNÍCTVOM KOMIKSU

VISUAL COMMUNICATION THROUGH COMICS

Daniela Valachová, Hana Juhász Muchová

Abstrakt
Vizuálna komunikácia je neoddeliteľnou súčasťou výtvarné umenia a sveta. Predstavuje jednu z ciest komunikácie autora a diváka. Je charakterizovaná symbolikou obrazu a písma. Prezentovaný výskum bol zameraný na skúmanie súčasných problémov dnešnej populácie, konkrétne online bezpečnosť, ktorú sme skúmali prostredníctvom komixového príbehu. Vychádzali sme zo skúsenosti každého respondenta zvlášť a našou snahou bolo interpretovať rôzne formy nebezpečenstva digitálneho sveta. Do popredia boli postavené zásady vyobrazenia scény, detailu, mimiky, gesta až karikatúry. Komiks sa tak stal komunikačným fenoménom a interpretoval skúsenostné zážitky respondentov. Výsledky poukazujú vhodnosť komiksu ako komunikačného média pre mladých ľudí, prostredníctvom ktorého sú schopní vyjadrovať svoje názory a reflektovať online ohrozenia.
Kľúčové slová: *vizuálna komunikácia, umenie, komiks, reprezentovanie názorov*

Abstract
Visual communication is an integral part of fine art and the world. It represents one of the ways in which the author and viewer communicate. It is characterized by the symbolism of images and writing. The presented research focused on examining the current problems of today's population, specifically online safety, which we explored through a comic story. We drew on the experience of each respondent individually and sought to interpret the various forms of danger in the digital world. The principles of depicting scenes, details, facial expressions, gestures, and even caricatures were brought to the fore. The comic thus became a communication phenomenon and interpreted the respondents' experiences. The results show the suitability of comics as a communication medium for young people, through which they are able to express their opinions and reflect on online threats.
Keywords: *visual communication, art, comics, representation of opinions*

1 UMENIE

Umenie a kultúra pomáha dospelým, mladým ľudom aj deťom, ako sa vyrovnať s rôznymi situáciami a ako komunikovať s okolím. Umenie a kultúra sú univerzálnym jazykom bez hraníc a obmedzení, prostredníctvom ktorých môžeme komunikovať s okolitým svetom, preventívne pôsobiť a zároveň otvárať nepoznaný ale bezpečný svet. Dáva ľudom možnosť tvoriť, realizovať sa, vyjadriť svoje predstavy a sny, otvoriť sa a cez výtvarno a komunikovať. A práve výtvarná tvorba je spojená s poznávaním a chápaním výtvarného umenia a kultúry.
Umenie sa môže stať efektívnym prostriedkom, ale aj nositeľom viacerých paradigiem. Umenie má zvláštne črty, najmä zážitkový charakter estetického vnímania umeleckého diela, modelový charakter umeleckého diela, jeho mnohovýznamovosť a mnohohodnotovosť. Zvláštnosťou umenia je, že môže pôsobiť nad kultúrne, vo výtvarnom umení či hudbe sa stierajú aj rozdiely založené na rozmanitosti jazykov. Obrazy Picassa či hudba Bacha sú hodnotami uznávanými vo všetkých vyspelých kultúrach.
Rozlíšenie jednotlivých druhov umenia predstavuje jednu z aktuálnych, ale zároveň zložitých otázok teórie umenia (Kulka, 2008). Na rozlíšenie jednotlivých druhov umenia je ako kritérium možné použiť rôzne aspekty umeleckých diel a proces ich tvorby. Našim cieľom nie

je prezentovať rôzne delenia umenia, spomenieme len niekoľko autorov, ktorý sa uvedenej problematike venovali. Lessing (in Kulka, 2008) rozdeľuje umenie na *časové a priestorové.*
K riešeniu otázky o klasifikácii druhov umenia významným spôsobom prispel Semper (in Kesner,1977), ktorý navrhol vývojovo orientované princípy pri rozlišovaní jednotlivých druhov umenia. Existujú aj ďalšie, zvláštne formy umenia, ktoré tvoria prechod medzi umeleckou a mimo umeleckou tvorbou. Je známe, že umenie prechádza plynule v rôznych smeroch do mimo umeleckej sféry. Pravdepodobne neexistuje pevná hranica v jednotlivých sférach umenia, ale existujú skôr určité prechodné oblasti. Tak prichádza k rozlišovaniu ďalších druhov a foriem umenia.
Umenie je odrazom objektívnej skutočnosti v našich zmyslových orgánoch, je to však odraz subjektívny, ovplyvňovaný naším myslením, racionálnou, rozumovou stránkou osobnosti človeka, to znamená aj jeho intelektom (Read, 1967).
Z vývoja samého umenia a jeho chápania v rôznych historických obdobiach sa do dneška udržuje známa dvojznačnosť v chápaní umenia:

- Umenie vo význame tzv. „**krásneho umenia**„ v zmysle schopnosti vytvárať umelé, krásne predmety v protiklade k prirodzeným, resp. dnes presnejšie jeho základných druhov (architektúra, divadlo, film, hudba, literatúra, maliarstvo, sochárstvo, tanec, atď.), teda umenie vo vlastnom zmysle.
- **Umenie ako zručnosť** (odvodená hlavne z remesla), je mimoriadna schopnosť k akejkoľvek spoločensky a pre praktický život významnej činnosti (Gero a kol. 2004).

Umenie je všade okolo nás, ale málokedy sa nad ním pozastavíme a zamyslíme. Lebo umenie nie je len v múzeách, či galériách, alebo v starých mestách. Umenie je vo všetkom, čo robíme k potešeniu zmyslov.
Umenie je spoločenský jav a svojou najhlbšou podstatou je zakorenený v ľudstve. Umelecké dielo sa obracia na spoločnosť. Pokiaľ ide o umenie a umeleckú tvorbu, je to z jedného pohľadu pokračovanie tvorivého procesu v nás samých. Prírodný princíp sa týka tvarov, farieb, rovnováhy, rytmu alebo štruktúry. Druhá stránka diela je závislá na subjekte tvorcu alebo vnímateľa, na jeho špecifickej ľudskej podobe, na jeho psychologickom type, na osobnosti, ktorá potom nie je nikdy jednoduchou kombináciou individuálnych zvláštností.
Podľa Reada (1967) má umenie moc obnovovať vzťah človeka ku skutočnosti. Read je presvedčený o veľkej meniacej sa a výchovnej funkcii a hodnote umenia, ktorého konkrétnym cieľom je „zladenie individuálnej jedinečnosti s jednotou spoločnosti“, zladenie nenásilné a spontánne, ako to už v staroveku žiadal Platón a potom u nás J. A. Komenský. Platónova poučka znie, že umenie má byť základom výchovy, to znamená, že každý jedinec sa rodí s určitými vnútornými možnosťami, ktoré sú pre neho pozitívnymi hodnotami a že jeho pravou úlohou je rozvíjať tieto vnútorné možnosti v medziach spoločenského poriadku natoľko, aby povolil nekonečné variácie typov. Umenie preto patrí do výchovy človeka.
Umenie môže byť chápané v rôznych podobách:

- Ako **umelecká kultúra,** čiže systém, ktorý tvoria umelci spolu s procesmi umeleckej tvorby, s umeleckými dielami a inštitúciami zabezpečujúcimi vznik, uchovanie a šírenie umeleckých diel.
- Ako **umelecká tradícia,** čiže tie umelecké hodnoty, ktoré si určitá spoločnosť vyberá z doteraz vytvorených umeleckých diel a ktoré majú čo povedať danej spoločnosti.
- Ako súbor **umeleckých diel,** čiže artefaktov vytvorených umelcami za účelom vypovedania o svete alebo o sebe, ako aj za účelom modelovania reality a ovplyvňovania vedomia percipienta znakovými štruktúrami umenia.
- Ako súbor **aktivít,** v ktorých sa umelecké predstavy spredmetňujú v umeleckých vyjadrovacích prostriedkoch (Mistrík, 2001).

Ak sumarizujeme poznatky o pojme „umenie“, tak ich môžeme zhrnúť do nasledovných bodov:

- umenie je charakterizované ako určitý vzťah ku skutočnosti (k svetu, k reálnemu životu a pod.), ako jej nápodoba, obraz, odraz, nadobúdanie, poznanie, hodnotenie, informácie o nej, eventuálne ako jej model - zároveň je tento vzťah charakterizovaný ako čin, činnosť, akcia, tvorivá premena skutočnosti,
- tento vzťah je druhom estetickej činnosti, estetického prejavu skutočnosti. Estetično je pritom v umení vždy spájané s ďalšími činnosťami a funkciami. Umenie je teda javom mnohofunkčným.
- pre štruktúru umeleckého procesu sú príznačné hlavne tieto prvky: zmyslovosť, zmyslová názornosť, city, vcítenie, obraznosť a imaginácia.
- dôležitou charakteristikou umenia je jeho znakovosť, chápanie umeleckého diela ako znaku a jeho významu: umenie sa prejavuje ako jav viacznačný, viacvýznamový.
- podstatným znakom umenia je rovnako forma a umelecké majstrovstvo, ktoré je podmienené talentom a vrcholí v umeleckej virtuozite (Valachova, 2025).

1.1 Vizuálna komunikácia

Vizuálna komunikácia môže byť vo formálnom priestore konštruovaná princípom interpretácie, citácie a parafrázy umeleckého diela s prepojením na súčasnú vizuálnu kultúru a umenie.

Komunikácia a výtvarná komunikácia

Komunikácia je fenomén, ktorý sa rozvíjal postupne s vývojom ľudstva a spoločnosti. Jednotlivé formy komunikácie sa vyvíjali postupne od jednoduchých foriem znamení a signálov cez rozvoj reči, jazyka, písma, tlače až k súčasným formám masovej komunikácie prostredníctvom počítačov, kníh, novín, a iných masových médií (Zágoršeková, 1997). Pojem komunikácie pochádza z latinského slova *communicare,* ktoré označuje schopnosť odovzdávať myšlienky medzi ľuďmi, stýkať sa, rokovať (Zágoršeková, 1997).

V teórii komunikácie sa vyvinuli rôzne špeciálne formy:

- teória masovej komunikácie,
- teória masových médií,
- teórie biologických a kultúrnych foriem komunikácie,
- teória znakovej komunikácie,
- teória rečových aktov,
- teória informačnej spoločnosti,
- teórie interkultúrnej komunikácie a ďalšie.

Vzájomnou komplementaritou sa stávajú prínosom pre všeobecnú teóriu komunikácie.

Hlavným prostriedkom medziľudskej komunikácie je jazyková komunikácia. Používajú sa pri nej na prenášanie informácie jazykové znaky. Verbálna komunikácia sa uskutočňuje prezentáciou obsahov vedomia v reči a textových formách. Rečové a textové formy prechádzajú do vedomia prijímateľa ako určité obsahové entity. Obsah správy je potom definovaný ako odraz objektu vo vedomí, poznanie, ktoré vzniká z praktickej činnosti (Bergerová. 2025).

V priebehu komunikácie dôležitú úlohu zohráva nielen naše umenie hovoriť, ale aj umenie počúvať a tiež prostredie, v ktorom sa tieto aktivity uskutočňujú, vrátane utváranej sociálnej atmosféry (Bratská, 2003).

Komunikácia je budovaná vo vzájomnej symbióze verbálnych a neverbálnych prvkov. V konkrétnom momente komunikácie verbálne prvky fungujú za spoluúčasti s neverbálnymi prvkami. Samy o sebe nemôžu úplne presne sformulovať myšlienku, preto spolu s ostatnými jazykovými prostriedkami sú presné a tvoria tak neoddeliteľnú súčasť komunikácie.

V živote človeka existuje množstvo podôb neverbálnej komunikácie. Všetky jej podoby sa stávajú súčasťou viacerých širších kontextov, ako sú: rečové, sociálne, psychologické, gestikulačné, vzťahové a časovo-priestorové. Do rámca neverbálnej komunikácie by sme mohli zaradiť: signály, znamenia, symboly, totemy, umelecké obrazy, gestá rúk, očí, nôh, skrátka pohyby tela všeobecne, ako aj iné mnohé prejavy (Liguš, 1996).

Verbálny a vizuálny jazyk v symbióze

Výtvarná komunikácia úzko súvisí s recepciou a jazykom videnia. Vo výtvarnej komunikácii existuje spoločná znaková zásoba, ktorá tvorí základ výtvarnej reči. Ak ovládame výtvarný jazyk, ľahko potom môžeme vnímať dielo a „počúvať", čo nám hovorí. Verbálny aj vizuálny jazyk majú spoločné znaky, sú spočiatku rovnocenné a vzájomne sa podporujú. Postupne vplyvom vzdelania sa dá vizuálny jazyk kultivovať, tak prerastie do umelého vizuálneho jazyka, ktorý je základom výtvarného jazyka a výtvarného umenia. Pojem výtvarný je užší ako pojem vizuálny a tak i výtvarný jazyk je užšie ohraničená oblasť ako vizuálny jazyk.
Výtvarný jazyk tvorí súbor špecifických, v spoločenskom kultúrnom povedomí relatívne stabilizovaných pravidiel nadväzovania medzi znakmi vo výtvarnom umeleckom diele.
Na porovnanie jednotlivých zložiek vizuálneho a verbálneho jazyka ponúkame nasledujúcu tabuľku.

Tab. 1. Zložky verbálneho a vizuálneho jazyka

Zložky verbálneho jazyka	**Zložky vizuálneho jazyka**
Samohlásky	línia, škvrna, farba, materiál
Slabiky	spojenie línie a škvrny do tvaru, zmysluplné priradenie farby škvrne, povrchu, hmote
Slová	výtvarné vyjadrenie predmetov a živých bytostí
Vety	naratívne výtvarné zobrazenia uzavreté výtvarné celky

Zdroj: vlastné spracovanie

Výtvarný jazyk odráža stav konkrétnej historickej doby, zmýšľanie a postoj spoločnosti ako aj celkovej situácie v nej. Ak vychádzame zo základných výtvarných činností kreslenia, maľovania a modelovania, potom základnými stavebnými prvkami, ktorými výtvarný jazyk disponuje sú línia, škvrna a hmota. Tieto prvky sa stávajú komunikačne umelecky hodnotné až vtedy, keď vstúpia do určitých vzťahov s ďalšími prvkami. K ďalším prvkom, môžeme zaradiť tvar, svetlo, farbu a materiál a nazývame ich základné vyjadrovacie prvky. Tieto majú schopnosť prispôsobovať sa iným prvkom a meniť svoje kvality. Najčastejšie vstupujú do vzťahov so základnými stavebnými prvkami a podľa toho rozoznávame tvarové, svetelné, farebné a povrchové kvalitatívne vzťahy.
Výtvarný vývoj definuje Arnheim (1969) ako schopnosť využiť grafický jazyk. Musí byť neodlučiteľne spätý s ďalšími mentálnymi funkciami pamäti a procesom utvárania predstáv o svete. Dieťa „vidí" na základe zmyslového sveta, teda niečoho čo môže zažiť. A tomu, čo zažíva sa snaží dať formu. Komunikuje cez výtvarné umenie.
Arnheim (1969) odmieta tvrdenie, že deti nekreslia to, čo vidia, ale to, čo vedia o danej veci. Podľa tohto tvrdenia by detský výtvarný prejav bol iba akýmsi zobrazením abstraktných pojmov a symbolov. Ak sa zdá, že používajú zovšeobecnenia, tak je to podľa neho preto, lebo vychádzajú zo sféry vnemu a nie z rozumových abstrakcií. Videnie vysvetľuje ako celú sériu dejov, ktorými si oko urobilo výber z mnohých vizuálnych podnetov tvoriacich obraz. Výber je mentálny proces, preto dvaja ľudia pozerajúci na ten istý objekt ho nevidia rovnako. To, čo

každý z nich vidí, je výrazne ovplyvnené subjektívnou skúsenosťou. Dieťa objavuje, ale nehľadá logiku v obraze, ktorý vníma. To, čo sa mu prezentuje pred jeho zrakom, spracúva ako celkový dojem. Podľa spomenutého autora môžeme hovoriť o ozajstnom objave (Valachová, 2023).
Vizuálna komunikácia všeobecne stavia do vzájomného vzťahu obraz a písmo. Gombrich (2017) vysvetľuje ako môže vizuálna komunikácia meniť obsahový význam obrázku týmto spôsobom: nakreslíme kruh, ktorý predstavuje bochník chleba, avšak ak hore pridáme oblúčik, stane sa z neho nákupná taška, pridáme dva malé rožteky na držadle, tie ju zmenia v peňaženku a doplnením chvostu vznikne mačka.

2. KOMIKS

Komiks je fenomén sociologický, historický, či ekonomický a je súčasťou modernej vizuálnej spoločnosti a jej produktov. Bol dlhodobo pokladaný za nižší druh masovej zábavy a sme radi, že sa mu podarilo vymaniť z tohoto hanlivého označenia. Od čitateľa vyžaduje inú aktivitu ako pri čítaní bežných textov. Pri vnímaní obrazov pracuje naše vedomie v akomsi operatívno-ikonickom programe. Obraz – ikon, či už ide o slovo – pojem alebo obraz – vizuálna predstava, sa generujú a vytvárajú proces komunikácie, medzi autorom a prijímateľom. Ak zvážime, že komiks predostiera rôzne sociálne situácie, môžeme predpokladať, že je aj možným nástrojom na ich ovplyvňovanie v skupinách detí a mládeže, ktoré sú ohrozené prostredím. Ak píše Kováčová (2020) využitie komiksu významne zvyšuje príťažlivosť nepríťažlivých tém, ktoré človek môže považovať za záťažové a zároveň môžu byť témami, ktoré nie sú ničím zaujímavé. Komiks zároveň prináša zobrazenie osobného príbehu alebo viacerých príbehov. V ňom je vizualizovaná konkrétna skutočnosť a práve tvorca (i čitateľ) sa s príbehom pravdepodobne ľahšie stotožní.
Pri vizuálnych prejavoch je nevyhnutné si uvedomiť základné funkcie komunikácie, ktoré Kapsová (2012) definuje nasledovne:

- operatívno-sociatívna funkcia. Vedomie si štruktúruje výpoveď o svete, so zámerom sociálnej orientácie. Obrazy, pre potreby rýchleho používania v praxi, sú zjednodušené do symbolu alebo zrozumiteľného znaku (piktogram, značka, logo),
- pojmovo-ikonická funkcia vizuálnych obrazov. Obraz sa stáva akousi vizuálnou definíciou exaktne stanovených vzťahov skutočnosti. Napr. šípka je formalizovaný znak, ktorý na mape znamená smer, ale pôvod a historické potvrdenie skúseností vyplýva zo šípu, ktorý letí vystrelený z luku, či kuše,
- ikonicko-zážitková funkcia komunikácie alebo hovorenie o niečom. Nevyžaduje zvláštne nadanie „existuje celá stupnica podávania obrazov sveta od strohého, oznamujúceho, nezáživného až po výkony skvelých rozprávačov, ktorí veľmi plasticky a farbisto (s impulzom pre vizuálnu imagináciu) vedia podať najrozličnejšie príbehy, ale aj opisy vecí, ktoré by od iných, menej zdatných rozprávačov mali celkom inú podobu (to je vlastne vizuálna kvalita)"
- umelecká informácia. Dať rozprávaniu formu, s využitím výtvarných zručností, vyrozprávať obrazmi, rozvinúť vizuálnu formu rozprávania do artistického, umeleckého tvaru.

Obrazy sa stali základným stavebným kameňom komiksu. Pričom ich obsah je silne symbolický, ikonický. Pomocou obrazov je rozprávané to, čo v románe môžeme vyjadriť textom – charakter postavy, opis prostredia, vyjadrenie pocitov, dejový posun v príbehu. To, čo nám dokáže román textom opísať, to nám komiks svojim obrazom ukáže. Dochádza tak ku predstave, že takéto obrazy bez slov a vyvolávajú skutočnosť, že reprezentujú primitívnejšiu formu grafického rozprávania, a že potrebujú určitú znalosť, či sofistikovanosť čitateľa alebo diváka, aby dokázal dostatočne identifikovať obsah v komikse (Repiská, 2024). Ide o osobnú skúsenosť a akoby históriu pozerania sa, aby bolo možné využiť ju následne pri interpretovaní vnútorných pocitov komiksových postáv (Foret a kol., 2012).

3. VÝSKUMNÉ ZISTENIA

Výskum vychádzal z predpokladov a zatiaľ neoverených informácií o vplyve a nebezpečenstvách digitálneho priestoru v živote mladých ľudí.
Našim cieľom bolo skúmanie názorov a skúseností mladých ľudí s online bezpečnosťou prostredníctvom zobrazenia v komikse.
Hlavným cieľom výskumu bolo sledovať spôsoby zobrazovania potencionálnych nebezpečenstiev v kresbe a komikse a taktiež analyzovať krátke slovné vyjadrenie aktérov k nemu.
Ako výskumnú metódu sme využili tematickú analýzu ako kvalitatívnu metódu skúmania v rámci umenia a umeleckých prejavov (Urban, 2020).
Výskumné zistenia sme analyzovali prostredníctvom obsahovej analýzy (Gavora, 2001). Ako vhodný spôsob poznania a analýzy výtvarných re interpretácii vizuálnych zobrazení súčasnosti sa javí obsahová analýza. Chápeme ju „ako špeciálnu metódu". Obsahová analýza v našom poňatí bude tvoriť jadro metódy. Už samotný názov výskumnej metódy napovedá o jej charaktere, čiže analýzu a hodnotenie obsahu vizuálnych expresívnych vyjadrení.

Zamerali sme sa na súčasný problém dnešnej populácie, konkrétne online bezpečnosť, ktorú sme skúmali prostredníctvom komixového príbehu. Vychádzali sme zo skúsenosti každého respondenta zvlášť a našou snahou bolo interpretovať rôzne formy nebezpečenstva digitálneho sveta. Do popredia boli postavené zásady vyobrazenia scény, detailu, mimiky, gesta až karikatúry.
Ako inšpiráciu sme zvolili umelecký smer Pop art, ktorý opisuje Štofko (2007) ako neodadaistický, neofiguratívny a neorealistický jazyk čerpajúci zo znakov každodennosti, reklamy, komiksu až gýču.

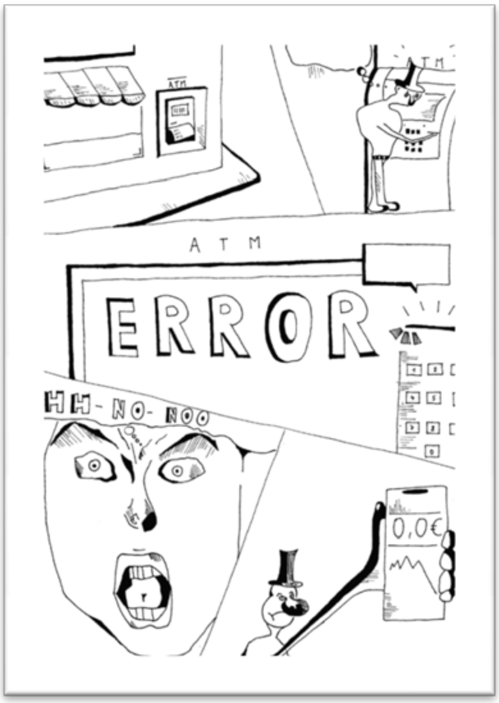
Ukážky z výskumu

Obr.1: kresba Samuel 17 rokov

Obr.2: digitálna maľba Samuel 17 rokov

Obr.3: *kresba Ellie 16 rokov*

Obr.4: *digitálna maľba Ellie 16 rokov*



Obr.5: *kresba David 15 rokov*

Obr.6: *digitálna maľba David 15*

Zhrnutie výsledkov

Súčasná doba otvorila dvere pre originálnu tvorivosť jednotlivca, avšak tým poukázala na problém ako sa vyrovnať s inakosťou. Ide o posuny vo vzťahoch medzi expresiou a reflexiou. U jednotlivca to znamená stúpajúce nároky na individualitu človeka v kontexte osobitosti výrazu. Zistili sme, že úloha zobraziť vizuálnu metaforu kresbou je náročný proces. Téma kybernetickej bezpečnosti sa musela realizovať na tri projektové epochy pomocou média kresby. Respondenti opakovanie riešili symbolické uchopenie komixových príbehov, aby bola

vizuálna komunikácia dostatočne čitateľná. Reflektovali svoju tvorbu veľmi často, potrebovali neustále povzbudzovať. Úskalie obrázkovej interpretácie spočívalo v ich statickosti. Bolo potrebné do nich vniesť akciu (Ševčovič, 2023). Počas tvorby sme respondentov viac upriamovali na kresbu karikatúry a pohyb v obraze. Naším spoločným úsilím sme sa dopracovali k výsledku, ktorý bol nakoniec nad očakávania.
Čakrt (2004) tvrdí, že rozvoj osobnosti človeka prebieha v dvoch základných rovinách. Je buď samovoľným procesom, bez vedomého zasahovania ako súčasť nášho vnútorného popudu sa zlepšovať a zdokonaľovať. A taktiež je to vedomý proces, ktorý využíva vedomosti i temperament človeka smerujúci k rozvoju osobnosti v procese tak, aby si tento čin sám uvedomoval (Weissová, 2025). Predstavenie témy „Príbehy online sveta” je projektom, ktorý bol riešený ďalej v počítačovom prostredí digitálnou maľbou.

4. ZÁVER

Z výskumu je zrejmé, že skupina našich respondentov si uvedomuje hrozby v online svete a reflektuje ich v komikse, ktorý je pre danú vekovú kategóriu vhodným médiom. Z obsahovej analýzy sú zrejmé zhrňujúce zistenia:

- komiks predstavuje najvhodnejšie výtvarné médium pre našu skupinu respondentov,
- vo výtvarných artefaktov je zrejmá dynamika a akcia,
- expresivita je najvýznamnejším výtvarným faktorom,
- obsahové spracovanie komiksov reprezentuje život a aktivitu respondentov.

Téma online sveta súčasných mladých ľudí predstavuje témy, ktorými je vhodné sa aj naďalej venovať, náš výskum načrtol jednu z možností skúmania a nazerania na tému a zároveň otvoril ďalšie možnosti smerovania výskumu.

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VÝTVARNÉ AKTIVITY AKO CESTA K WELLBEINGU

ART ACTIVITIES AS A PATH TO WELL-BEING

Dominika Weissová

Abstrakt

Výskumná sonda sa zameriava na reflexiu wellbeingovej výtvarnej aktivity využívajúcej princípy mindfulness v kontexte výtvarnej edukácie. Cieľom výskumnej sondy bolo preskúmať, ako zahraniční vysokoškolskí študenti reflektujú výtvarnú aktivitu založenú na princípoch mindfulness a aký význam pripisujú výtvarnému procesu vo vzťahu k vlastnému prežívaniu. Výskum bol realizovaný formou kvalitatívnej sondy počas výtvarného workshopu so zahraničnými študentmi. Dáta tvorili písomné reflexie účastníkov získané pred a po workshope. Výsledky poukazujú na posun od orientácie na výkon a hodnotenie k všímavému vnímaniu, spomaleniu a väčšiemu zameraniu na tvorivý proces. Výtvarná aktivita sa ukázala ako významný edukačný priestor podporujúci nehodnotiaci prístup a uvedomenie si významu výtvarnej tvorby v každodennom živote.

Kľúčové slová: *výtvarná tvorba, mindfulness, wellbeing, vysokoškolskí študenti*

Abstract

This research probe focuses on the reflection of a wellbeing-oriented visual art activity using mindfulness principles in the context of art education. The aim of the study was to explore how international university students reflect on a visual art activity based on mindfulness principles and what significance they attribute to the art-making process in relation to their own experience. The research was conducted as a qualitative probe during a visual art workshop with international students. The data consisted of written reflections collected before and after the workshop. The findings indicate a shift from performance- and evaluation-oriented thinking towards mindful perception, slowing down, and a greater focus on the creative process. The visual art activity emerged as a meaningful educational space supporting a non-judgmental approach and an increased awareness of the role of art-making in everyday life.

Key words: *visual art-making, mindfulness, wellbeing, university students*

1 TEORETICKÉ VÝCHODISKÁ

Galerijná pedagogika tradične pracuje s prístupmi založenými na zážitku, prežívaní a senzorickom vnímaní. Takéto prístupy podporujú pomalé vnímanie, reflexiu a osobný kontakt s umením, čím vytvárajú priestor pre individuálne a zmysluplné prežívanie návštevníkov. V posledných rokoch sa galerijná pedagogika čoraz častejšie prepája s témami wellbeingu a duševného zdravia. Aj Wei, Zhong a Gao (2023) poukazujú na to, že v období zvýšenej psychickej záťaže sa múzeá a galérie čoraz viac vnímajú ako otvorené a inkluzívne priestory, ktoré ponúkajú bezpečné prostredie na spomalenie, premýšľanie a vnútorné upokojenie. Tiež upozorňujú na to, že samotná návšteva múzea môže u návštevníkov podporovať hlbšiu osobnú reflexiu a že múzeá a galérie ako inštitúcie môžu svojím charakterom a programami pôsobiť na psychickú pohodu návštevníkov.

Na tieto východiská nadväzujú súčasné prístupy, ktoré sa zameriavajú na aktívne zapojenie výtvarnej tvorby ako nástroja podpory psychickej pohody. Výtvarné aktivity, najmä tie

založené na princípoch mindfulness, vytvárajú priestor pre sebauvedomenie, emocionálnu reguláciu a redukciu stresu, čo je obzvlášť relevantné v kontexte vysokoškolského prostredia.
V tomto kontexte sa do popredia dostáva pojem wellbeing, ktorý Ryff a Keyes (1995) chápu ako koncept, ktorý nehovorí len o pocite šťastia alebo spokojnosti, ale aj o pozitívnom fungovaní človeka v rôznych životných oblastiach. Wellbeing podľa nich zahŕňa pozitívne fungovanie jednotlivca v rôznych oblastiach života a pozostáva zo šiestich vzájomne prepojených dimenzií: pozitívne hodnotenie seba a vlastnej minulosti, pocit osobného rastu a rozvoja, pocit zmyslu a cieľa v živote, kvalitné a uspokojujúce vzťahy, schopnosť zvládať životné situácie a prostredie, sebaurčenie a nezávislosť v rozhodovaní a konaní. Teda poukazujú na to, že wellbeing nie je len stav šťastia, ale je to komplexná súhra viacerých oblastí života človeka, ktoré spolu tvoria jeho dobré prežívanie, fungovanie a psychologickú pohodu.
V našej výskumnej štúdii sa zameriavame na wellbeing vysokoškolských študentov, a to vzhľadom na zistenia viacerých výskumov (Haruna, Mohammed a Braimah, 2025; Liyanage, Saqib, Khan et al., 2021), ktoré poukazujú na to, že veľké množstvo vysokoškolských študentov trpí vplyvom akademického stresu rôznymi psychickými ťažkosťami. Haruna, Mohammed a Braimah (2025) skúmali prejavy úzkosti, stresu a depresie u vysokoškolských študentov v prvom ročníku štúdia a poukázali na to, že tieto stavy sú pre študentov bežné a medzi akademickým stresom a úzkosťou a depresiou je pozitívna korelácia.
Osobitnú pozornosť si vyžaduje wellbeing zahraničných študentov, ktorí okrem akademických nárokov čelia aj výzvam spojeným s kultúrnou adaptáciou. Maharaj, Ndwiga, Chutiyami (2025) poukazujú na to, že medzinárodní študenti tiež zažívajú úzkosti, depresie a stres, no u nich tieto problémy nesúvisia len s akademickým tlakom, ale sú podnietené aj izoláciou a pocitom osamelosti alebo finančnými ťažkosťami. Zahraniční študenti sú teda okrem akademického stresu ovplyvnení aj kultúrnou adaptáciou.
Xue a Syed Abdullah (2025) ako jednu z možných ciest, ako pomôcť študentom zvládať akademický stres a úzkosť vidia arteterapiu založenú na mindfulness (Mindfulness-Based Art Therapy). Kabat-Zinn (2003) mindfulness chápe ako špecifické kvality pozornosti a uvedomovania, ktoré je možné kultivovať a rozvíjať prostredníctvom meditácie. Mindfulness definuje ako „*uvedomovanie, ktoré vzniká zámerným zameraním pozornosti na prítomný okamih, bez hodnotenia, na postupne sa odvíjajúcu skúsenosť okamih za okamihom*“ (Kabat-Zinn, 2003, s.145). Na meranie mindfulness boli vyvinuté viaceré nástroje, ktoré sledujú schopnosť všímavého uvedomovania, regulácie pozornosti a otvorenosti voči skúsenosti. Preiss a Carmona (2024) poukazujú na to, že mindfulness je konceptuálne prepojené s kreativitou, čo dokazujú tým, že mnohé nástroje na meranie mindfulness zahŕňajú aj prvky typické pre tvorivé myslenie, ako sú kognitívna flexibilita, schopnosť hľadať nové riešenia a otvorenosť voči tvorbe nových významov.
Mindfulness-Based Art Therapy (MBAT) opisujú Xue a Syed Abdullah (2025) ako komplexný prístup, ktorý kombinuje princípy mindfulness a výtvarnej tvorby, pričom je zameraný na posilňovanie emocionálnej regulácie a duševného wellbeingu. Autori poukazujú na to, že práve MBAT má potenciál podporovať duševné zdravie vysokoškolských študentov. Zistili, že tento prístup znižuje stres a úzkosť, a taktiež je prínosný aj v oblasti emocionálnej regulácie a kvality spánku.
Van Lith, Cheshure, Pickett et al. (2021) zároveň tvrdia, že podporné služby na vysokých školách sú často orientované najmä na riešenie krízových situácií, no už menej sú študentom poskytované služby, ktoré by im pomohli naučiť sa stratégie, vďaka ktorým budú stres a úzkosti lepšie zvládať. Naznačujú, že takéto intervencie by mali brať ohľad aj na finančnú situáciu študentov a ich časové obmedzenia.
V predkladanej výskumnej sonde však nevychádzame z klinického alebo terapeutického rámca arteterapie, ale z preventívne a edukatívne orientovaného prístupu k wellbeingu.

Realizovaný výtvarný workshop nebol koncipovaný ako terapeutická intervencia, ale ako podporná aktivita zameraná na vytvorenie bezpečného priestoru pre sebavyjadrenie, reflexiu a subjektívne prežívanie účastníkov.
Na základe uvedených teoretických východísk bola v rámci výskumnej sondy realizovaná wellbeingová výtvarná aktivita, ktorá vychádzala z princípov mindfulness a prežitkového učenia typických pre galerijnú pedagogiku. Cieľom workshopu bolo vytvoriť bezpečný priestor pre spomalenie, reflexiu a výtvarnú expresiu a preskúmať, ako túto skúsenosť reflektovali zahraniční vysokoškolskí študenti vo vzťahu k svojmu wellbeingu.

2 METODIKA

Cieľom výskumnej sondy bolo preskúmať, ako zahraniční vysokoškolskí študenti reflektujú wellbeingovú výtvarnú aktivitu založenú na princípoch mindfulness a aký význam pripisujú výtvarnému procesu v súvislosti so svojím prežívaním.
Na základe cieľa výskumnej sondy sme si stanovili nasledujúce výskumné otázky:
Ako zahraniční vysokoškolskí študenti reflektujú wellbeingovú výtvarnú aktivitu založenú na princípoch mindfulness?
Aký význam pripisujú študenti výtvarnému procesu vo vzťahu k svojmu prežívaniu a každodennému fungovaniu?
Výskumná sonda bola koncipovaná z perspektívy výtvarnej didaktiky, ktorá kladie dôraz na význam tvorivého procesu a reflexie v edukačnom kontexte. Cieľom výskumnej sondy nebolo hodnotenie psychického stavu účastníkov ani posudzovanie účinnosti intervencie, ale skúmanie edukačného potenciálu výtvarnej aktivity založenej na princípoch mindfulness.

2.1 Výskumný súbor

Výskumný súbor tvorila skupina 15 zahraničných vysokoškolských študentov, z ktorých každý pochádzal z inej krajiny, čo vytváralo kultúrne rôznorodé prostredie. Pre účely analýzy boli využité dáta od 9 študentov, ktorí poskytli kompletné písomné reflexie. Workshop bol realizovaný v univerzitnom prostredí ako samostatná výtvarno-edukačná aktivita. Účasť študentov bola dobrovoľná a všetky dáta boli spracované anonymne.

2.2 Postup výtvarného workshopu

Wellbeingový výtvarný workshop trval tri hodiny a bol navrhnutý ako zážitková výtvarná aktivita, ktorá prepájala princípy mindfulness s procesne orientovanou výtvarnou tvorbou. Workshop sa začal privítaním a úvodnou aktivitou, počas ktorej účastníci písomne odpovedali na dve otvorené otázky: How are you feeling now? (ako sa práve teraz cítiš?) a What are you thinking about now? (nad čím práve teraz rozmýšľaš?) Tieto otázky slúžili na zachytenie aktuálneho naladenia a myšlienkového zamerania účastníkov pred začiatkom tvorivej činnosti.
Nasledovala krátka diskusia zameraná na objasnenie základných princípov mindfulness a zdieľanie predchádzajúcich skúseností účastníkov s týmto prístupom. V ďalšej fáze boli realizované dve krátke senzorické cvičenia. V prvom cvičení sa účastníci počas jednej minúty pohybovali po miestnosti a vedome si všímali vizuálne podnety v okolí bez ich hodnotenia; v prípade uvedomenia si hodnotiaceho postoja mali presmerovať pozornosť na iný objekt. Druhé cvičenie bolo zamerané na sluchové vnímanie a spočívalo v sústredení sa na zvuky v priestore so zatvorenými očami, bez ich posudzovania, v trvaní približne dvoch minút. Po každom cvičení nasledovala krátka spoločná reflexia zameraná na zdieľanie pozorovaní a pocitov z vnímania.
V nasledujúcej časti workshopu bola pustená hudba a účastníci mali so zatvorenými očami zamerať pozornosť na jednu emóciu alebo vnútorný stav. Prostredníctvom predstáv o jej farbe, tvare alebo vôni následne prenášali túto skúsenosť do výtvarnej podoby. Výtvarná

činnosť prebiehala individuálne, s dôrazom na proces tvorby, experimentovanie a preklad vlastnej emočnej skúsenosti do vizuálneho vyjadrenia, bez hodnotenia výsledného diela.
Na záver workshopu účastníci opätovne písomne odpovedali na rovnaké dve otázky ako na jeho začiatku (How are you feeling now? a What are you thinking about now?), čo umožnilo porovnať spôsoby, akými opísali svoje prežívanie a zameranie pozornosti pred a po absolvovaní výtvarnej aktivity.

2.3 Zber dát

Dáta boli zbierané prostredníctvom krátkych písomných reflexií, ktoré účastníci vypracovali na začiatku a na konci workshopu formou odpovedí na dve otvorené otázky. Tieto texty zachytávali spôsob, akým účastníci pomenúvali svoje aktuálne prežívanie a premýšľanie v rôznych fázach výtvarnej skúsenosti. Doplnkovým zdrojom dát boli spoločné diskusie po cvičeniach, ktoré poskytli kontext k individuálnym písomným výpovediam. Všetky dáta vznikli bezprostredne počas workshopu alebo bezprostredne po jeho ukončení a boli spracované anonymne.

3 VÝSLEDKY

Výsledky kvalitatívnej analýzy písomných reflexií zahraničných vysokoškolských študentov poukazujú na viacero tematických okruhov, ktoré súvisia so spôsobom, akým účastníci vnímali a reflektovali wellbeingovú výtvarnú aktivitu založenú na princípoch mindfulness. Analýza sa zameriavala na to, ako študenti reflektovali svoju skúsenosť, zmeny v prežívaní študentov a význam, ktorý študenti pripisovali tvorivému procesu v edukačnom kontexte.

3.1 Východiskové naladenie študentov pred výtvarnou aktivitou

Pred začiatkom workshopu študenti vo svojich odpovediach často pomenúvali pocity neistoty, únavy, nervozity a obáv. Ich myšlienky boli orientované najmä na akademické povinnosti, budúcnosť a výkon. Viaceré odpovede poukazovali na rozptýlenú pozornosť a zvýšený hodnotiaci postoj vo vzťahu k vlastnému výkonu ešte pred samotným vstupom do výtvarnej činnosti.
Študenti sa vyjadrovali nasledovne:
„Cítim sa smutne.“ (študent 1)
„Mám obavy, či dokážem nakresliť dobrý obrázok a či viem dobre po anglicky.“ (študent 2)
„Som nervózna a bojím sa urobiť chybu.“ (študent 7)
„Som úzkostná, riešim byrokratické problémy.“ (študent 8)
Tieto odpovede naznačujú, že študenti vstupovali do výtvarnej aktivity s pozornosťou orientovanou mimo samotného tvorivého procesu, pričom ich vnímanie bolo výrazne ovplyvnené očakávaniami, hodnotením a tlakom na výkon.

3.2 Témy objavujúce sa v reflexiách po výtvarnej aktivite

Spomalenie a presmerovanie pozornosti v tvorivom procese
Po absolvovaní workshopu sa v reflexiách študentov objavuje výrazný posun v tom ako opisujú svoje prežívanie. Odpovede po workshope častejšie obsahovali odkazy na pokoj, uvoľnenie a sústredenie na prítomný okamih. Tento posun je možné interpretovať ako výsledok cvičení zameraných na všímavosť a procesne orientovanej výtvarnej činnosti.
Študenti po workshope uvádzali:
„Cítim pokoj.“ (študent 4)
„Cítim sa uvoľnene a šťastne.“ (študent 3)
„Cítim mier a úľavu.“ (študent 7)
„Cítim radosť, nemám žiadne filozofické myšlienky.“ (študent 8)

Posun v zameraní pozornosti a v spôsobe pomenúvania skúsenosti je zreteľný pri porovnaní odpovedí tých istých študentov pred workshopom a po jeho absolvovaní.
Študent 8 pred workshopom uvádzal:
„Som úzkostná, riešim byrokratické problémy."
Po workshope ten istý študent reflektoval:
„Cítim radosť, nemám žiadne filozofické myšlienky."
V tomto prípade je zrejmý presun pozornosti od vonkajších starostí a mentálneho zahltenia k jednoduchému, prítomnému prežívaniu bez nadbytočného premýšľania.
Podobne výrazný posun je možné pozorovať u študenta 7, ktorý pred workshopom uvádzal:
„Som nervózna a bojím sa urobiť chybu."
Po absolvovaní výtvarnej aktivity ten istý študent uviedol: „Cítim mier a úľavu."

Tieto výpovede naznačujú prechod od obáv z hodnotenia a výkonu k uvoľnenejšiemu prežívaniu spojenému s tvorivým procesom. Zreteľný kontrast sa objavuje aj u študenta 4, ktorý po workshope reflektoval nielen zmenu prežívania, ale aj jeho vzťah k výtvarnej tvorbe: „Cítim pokoj." „Mám pocit, že som na obraz preniesla to, čo som mala v hlave."
V tomto prípade sa pokojné naladenie prepája s vedomým vnímaním výtvarnej tvorby ako priestoru pre vizualizáciu vnútorného prežívania.

Uvedené príklady ukazujú, že študenti vo svojich reflexiách zmenili to, na čo zameriavali svoju pozornosť. Pozornosť študentov sa presmerovala z myšlienkového zahltenia k všímavému vnímaniu a tvorivému prežívaniu, ktoré umožňuje intenzívnejšie zapojenie sa do výtvarnej činnosti.

Výtvarná tvorba ako priestor pre vizualizáciu vnútorného prežívania
Viacerí študenti explicitne reflektovali vzťah medzi tým, čo prežívali a výslednou výtvarnou prácou. Obraz vnímali ako spôsob zachytenia vnútorného stavu, myšlienok alebo emócií, ktoré bolo možné sprostredkovať neverbálnou formou.
V reflexiách sa objavovali vyjadrenia ako:
„Mám pocit, že som na obraz preniesla to, čo som mala v hlave." (študent 4)
„Myslím si, že môj obraz vyzerá ako moje vnútro." (študent 4)
Tieto výpovede poukazujú na význam výtvarnej tvorby ako prostriedku reflexie, v rámci ktorej slúži obraz ako sprostredkovateľ medzi vnútornou prežívaním a jeho uvedomením.

Nehodnotiaci prístup a tvorivá sloboda
Výrazným tematickým okruhom, ktorý sa objavoval najmä v odpovediach po workshope, bola skúsenosť s nehodnotením vlastnej tvorby. Študenti opisovali pocit slobody, prijatia a úľavy, ktorý im umožnil sústrediť sa na samotný proces tvorby bez obáv z chýb alebo hodnotenia výsledku.
Študenti uvádzali:
„Som hrdá na seba, že som sa nehodnotila." (študent 7)
„Nechala som sa byť, bola som úprimná a slobodná." (študent 7)
„Držala som štetce prvýkrát." (študent 6)
Z hľadiska výtvarnej výchovy je práve nehodnotiaci prístup kľúčovým predpokladom pre experimentovanie, rozvoj tvorivosti a autentické zapojenie sa do procesu.

Uvedomenie si významu výtvarnej tvorby v každodennom živote
Viacerí študenti po workshope reflektovali význam výtvarnej činnosti nad rámec samotnej aktivity a vyjadrovali túžbu zaradiť tvorbu do svojho každodenného života. Výtvarná

skúsenosť bola vnímaná ako niečo, čo im chýbalo alebo čo im pomohlo znovuobjaviť vzťah k tvoreniu.
Študenti uvádzali:
„Uvedomila som si, ako mi maľovanie chýba.“ (študent 3)
„Určite sa chcem k maľovaniu vrátiť.“ (študent 3)
„Chcem si to dopriať častejšie.“ (študent 7)
Tieto výpovede poukazujú na edukačný potenciál výtvarnej aktivity ako prostriedku podporujúceho dlhodobejší vzťah k tvorbe a sebavyjadreniu.

Individuálne a ambivalentné reakcie ako súčasť tvorivého procesu
Nie všetky reflexie po workshope smerovali k pomenovaniu pokoja alebo uvoľnenia. V jednom prípade študentka po workshope uviedla:
„Cítim hnev a frustráciu.“ (študent 9)
Pri porovnaní s jej odpoveďou pred workshopom je zrejmé, že negatívne prežívanie nepredstavuje novú skúsenosť vyvolanú výtvarnou aktivitou, ale bolo prítomné už pred jej začiatkom. Pred workshopom tá istá študentka uvádzala pocity napätia a vnútorného nepokoja. Z výtvarno-didaktického hľadiska nemusíme túto odpoveď interpretovať ako zlyhanie aktivity, ale mohlo by ísť o potvrdenie toho, že výtvarná tvorba vytvára priestor pre autentické pomenovanie prežívania, bez snahy ho okamžite meniť alebo zlepšovať. Teda tvorivý proces študentom umožnil, aby sa do popredia dostali aj náročné emócie, ktoré sú prirodzenou súčasťou osobnej skúsenosti a voľná výtvarná tvorba im môže dať priestor preukázať sa.
Výsledky analýzy ukazujú, že wellbeingová výtvarná aktivita založená na princípoch mindfulness umožnila študentom presmerovať pozornosť, spomaliť tempo vnímania a reflektovať vlastné prežívanie prostredníctvom tvorivého procesu. Výtvarná tvorba sa v reflexiách študentov ukázala ako významný edukačný nástroj podporujúci nehodnotiaci prístup, vizualizáciu vnútorných skúseností a uvedomenie si významu tvorby v ich každodennom živote.

4 ZÁVERY VÝSKUMNEJ SONDY

Cieľom výskumnej sondy bolo preskúmať, ako zahraniční vysokoškolskí študenti reflektovali wellbeingovú výtvarnú aktivitu založenú na princípoch mindfulness a aký význam pripisovali výtvarnému procesu v súvislosti so svojím prežívaním. Závery vychádzajú z kvalitatívnej analýzy písomných reflexií študentov.
Zistenia poukazujú na rozdiel v spôsobe, akým študenti pomenúvali svoje prežívanie pred workshopom a po jeho absolvovaní. Kým pred vstupom do výtvarnej aktivity dominovali v reflexiách myšlienky orientované na výkon, hodnotenie a vonkajšie tlaky, po workshope sa vo svojich výpovediach študenti presunuli k pomenovaniu pokoja, uvoľnenia a prítomného prežívania. Tento posun nemožno chápať ako zmenu psychického stavu, ale skôr ako zmenu v zameraní pozornosti, ktorá je z hľadiska výtvarnej výchovy kľúčová pre vstup do tvorivého procesu.
Významným záverom je spôsob, akým študenti vnímali vzťah medzi svojím vnútorným prežívaním a výtvarnou tvorbou. Obraz sa v ich reflexiách objavoval ako prostriedok vizualizácie vnútorných stavov, myšlienok a emócií, ktoré bolo možné sprostredkovať neverbálnou formou. Výtvarná tvorba sa tak ukázala ako spôsob pre reflexiu a uvedomovanie si vlastnej skúsenosti a sprítomnenie vlastného prežívania.
Opakovane sa v reflexiách objavovala aj skúsenosť s nehodnotením vlastnej tvorby, ktorú študenti vnímali ako oslobodzujúcu a umožňujúcu sústrediť sa na samotný proces tvorby. Tieto zistenia možno interpretovať ako potvrdenie vhodnosti využívania nehodnotiaceho prístupu vo výtvarnej tvorbe a tiež toho, že procesne orientované výtvarné aktivity vytvárajú

podmienky pre slobodu vyjadrovať sa, experimentovanie a voľné tvorenie, či sebavyjadrenie. Tiež vidíme prepojenie medzi týmto výtvarným prístupom a princípmi mindfulness, v ktorých sa zdôrazňuje všímavosť a prežívanie prítomného okamihu bez hodnotenia.
Závery výskumnej sondy tiež poukázali na to, že viacerí študenti si uvedomili, že výtvarná tvorba pre nich môže byť potenciálne významná súčasť ich každodenného života. Ako naznačujú reflexie, tvorivú činnosť vnímali ako jednu z možných stratégií, prostredníctvom ktorých dokážu reagovať na tlak, záťaž a tempo vysokoškolského prostredia. Nešlo pritom o dokazovanie konkrétneho účinku výtvarnej tvorby, ale o význam, ktorý jej samotní študenti pripisovali v súvislosti so svojím prežívaním.
V jednom prípade sa po workshope objavila aj kontrastná forma prežívania spojená s pretrvávajúcimi negatívnymi emóciami. Odpovede danej študentky pred workshopom a po ňom poukazujú na to, že výtvarná tvorba vytvára priestor pre pomenovávanie prežívania bez snahy ho okamžite meniť alebo hodnotiť.

5 ZÁVER A ODPORÚČANIA PRE PRAX

Predložená výskumná sonda poukazuje na potenciál wellbeingových výtvarných aktivít založených na princípoch mindfulness ako edukačného nástroja vo vysokoškolskom prostredí. Zistenia naznačujú, že procesne orientovaná výtvarná tvorba môže vytvárať bezpečný priestor pre spomalenie, presmerovanie pozornosti a reflexiu vlastného prežívania, čo je obzvlášť relevantné pri práci so zahraničnými študentmi.
Z hľadiska výtvarnej praxe sa ako dôležité ukazuje vytváranie prostredia, ktoré podporuje nehodnotiaci prístup k tvorbe a umožňuje študentom vstúpiť do tvorivého procesu bez obáv z výkonu a hodnotenia. Krátke cvičenia zamerané na všímavé vnímanie môžu slúžiť ako vhodná príprava na výtvarnú činnosť a podporovať prechod od myšlienkového zahltenia k tvorivému prežívaniu.
Odporúčania pre prax vyplývajúce z tejto sondy sa týkajú najmä využívania procesne orientovaných výtvarných aktivít ako súčasti edukačných alebo podporných programov na vysokých školách. Takéto aktivity nemusia mať terapeutický charakter, aby mali významný edukačný potenciál. Ich prínos spočíva predovšetkým v tom, že podporujú vzťah k tvorbe, sebareflexiu a uvedomovanie si vlastných prežitkov v bezpečnom a otvorenom prostredí.
Zároveň je potrebné zdôrazniť, že ide o výskumnú sondu s obmedzeným počtom účastníkov, ktorej cieľom nebolo generalizovať zistenia, ale prispieť k hlbšiemu porozumeniu subjektívnej skúsenosti študentov. Do budúcna by bolo vhodné realizovať ďalšie kvalitatívne výskumy zamerané na proces výtvarnej tvorby v súvislosti s wellbeingom v rôznych edukačných kontextoch.

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ANALYSIS OF COPING PREFERENCES IN RELATION TO PERSONAL RESILIENCE AND PERCEIVED STRESS

Patrícia Frančiaková, Petra Zbínová

Abstract

This study examines the associations between perceived stress, personal resilience, and coping strategies in the Slovak adult population. Data were collected using the PSS-10, BRS, and Brief COPE scales. Statistical analysis revealed a significant strong negative correlation between resilience and perceived stress (ρ= -0.619, sig.< 0.001). Highly resilient individuals demonstrated a preference for adaptive coping strategies, such as planning and active coping, while low resilience was associated with significantly higher scores in maladaptive strategies, including self-blame, venting, and behavioral disengagement. The findings confirm that resilience serves as a key protective factor linked to lower stress perception and the selection of specific coping mechanisms. These results emphasize the importance of resilience-focused approach in mental health and stress management.

Key words: *resilience, perceived stress, coping strategies*

1 INTRODUCTION

Stress is a universal phenomenon defined as a state in which an individual perceives environmental demands as exceeding their ability to cope (Lazarus & Folkman, 1984). It is not merely an external event but rather a subjective interpretation of that event. Within contemporary research, the concept of stress can be examined not only from a biological perspective, focusing on the physiological reactions of the organism to stressors, but also from psychological and environmental perspectives. The psychological viewpoint focuses on the subjective experience of stress, while the environmental viewpoint targets life events acting as stressors (Lee, 2012 in Rázcová, Hricová & Lavašová, 2018). Perceived stress reflects the degree to which individuals perceive their lives as unpredictable, uncontrollable, and overloaded (Cohen, Kamarck & Mermelstein, 1983). Long-term exposure to high levels of perceived stress is associated with negative health outcomes, including the development of anxiety and depressive disorders. Whether a potential stressor becomes an actual one depends on factors such as subjective appraisal, whereby an individual may perceive a stressor as more or less stressful than it objectively is. This appraisal of burden is influenced by individual personality characteristics (personal resilience, work capacity, intellect, neuroticism). Other influencing factors include the individual's coping mechanisms (coping strategies, defense reactions), adverse life events and experiences, daily hassles, social support, and status (Paulík, 2017).

In contrast to the destructive power of stress stands personal resilience. Currently, resilience is considered a core of the adaptation system. Unlike past conceptions of resilience as a trait belonging only to certain individuals, emphasis is now placed on the fact that every individual can build psychological resilience (Booth & Neill, 2017). Resilience is a dynamic process involving adaptation or an adaptive response to adversity, trauma, tragedy, threats, or significant sources of stress (APA, 2014). Those exhibiting high levels of resilience are not immune to stress but demonstrate a better ability to "bounce back" after overcoming difficulties and return more quickly to psychological equilibrium (Bonanno, 2004). Resilience is often viewed as a key protective factor against the development of psychopathology.

The mechanisms individuals utilize to manage stressful situations are known as coping. Lazarus and Folkman (1984) classically divided coping strategies into two fundamental categories:

- Problem-focused coping: Strategies aimed at changing the stressful situation itself (e.g., planning, information seeking).
- Emotion-focused coping: Strategies aimed at regulating the emotional response to the stressor (e.g., avoidance, positive reappraisal, seeking social support).

Preferences for these strategies are individual, and their effectiveness is not universal but depends on the situational context, the nature of the stressor, and personality characteristics (Connor-Smith & Flachsbart, 2007).

Research consistently confirms that personal resilience acts as a significant protective factor against the negative impacts of stress. Individuals with higher psychological resilience report significantly lower levels of subjectively perceived stress (Lee et al., 2014; Tugade & Fredrickson, 2004). This relationship is also closely linked to the preference and effectiveness of coping strategies. Highly resilient individuals tend to choose adaptive coping strategies, particularly problem-focused coping and positive reappraisal, (Carver, Scheier & Weintraub 1989; Li & Nishikawa, 2012) which are positively correlated with overall well-being and negatively with distress. Conversely, low resilience is typically associated with a preference for maladaptive strategies, such as denial, avoidance, or behavioral/mental disengagement, which lead to increased perceived stress (Wrenn et al., 2011).

A significant finding is that resilience does not only affect the final outcome but often functions as a moderator or mediator in the relationship between the stressor and the coping response, thereby directly intervening in the selection of a strategy in a given stressful situation (Smith et al., 2008). This mechanism explains why resilient individuals are able to flexibly adjust their coping efforts to the demands of the situation.

Currently, the study of resilience focuses on understanding resilience processes and the associations between stressors, resources, coping, stress response, and mental health (Obbarius, 2021). Booth and Neill (2017), Van der Hallen (2020), and Lee et al. (2016) described the relationship between coping strategies and resilience, noting that resilience and coping are two distinct but closely related constructs that mutually influence each other. Problem-solving coping strategies and positive reframing (Booth, 2015 in Booth & Neill, 2017) enhance resilience, while strategies such as ignoring the problem or worrying weaken it. According to Gloria and Steinhardt (2013), more resilient individuals incline toward choosing adaptive coping strategies, which in turn support resilience and better situational management. In contrast, individuals with low resilience tend toward maladaptive strategies, such as self-blame, which have a negative effect on resilience.

In today's society, stress is a very serious factor affecting daily functioning and has a negative impact on both mental and physical health. Other factors also enter into the complex interaction pattern of stress and health, possessing the potential to diminish or, conversely, exacerbate negative consequences (Caffo et al., 2008; Davydov et al., 2010; Windle, 2011). Based on the aforementioned theoretical-empirical framework, this study examines associations among perceived stress, resilience, and coping strategies in a sample of Slovak adults. We further investigate how coping strategy preferences vary by resilience and stress levels.

2 METHODS

2.1 Data collection

The testing battery consisted of three questionnaires: the Perceived Stress Scale (PSS-10), the Brief Resilience Scale (BRS), and the BRIEF COPE.

Perceived stress data were obtained using the **PSS-10**, which consists of 10 items. Individuals respond on a 5-point scale (from 0 – never to 4 – very often). The total score ranges from 0 to 40 points. Based on the total score, respondents can be categorized into low perceived stress (0–13 points), moderate perceived stress (14–26 points), and high perceived stress (27–40 points). The original version of PSS-10 achieves a satisfactory internal consistency value of $\alpha=0.78$ (Cohen, Kamarck & Mermelstein, 1983).

BRS consists of 6 items focused on personal resilience. Respondents record their answers on a 5-point scale (1 – strongly disagree to 5 – strongly agree). In terms of scoring, 1.00 – 2.99 points represent low resilience, 3.00 – 4.30 points represent moderate resilience, and 4.31 – 5.00 points represent high resilience (Smith et al., 2008).

Brief COPE (Carver, 1997) is used to assess preferred coping strategies. The questionnaire contains 28 items divided into 14 factors (active coping, planning, positive reframing, humor, acceptance, religion, seeking emotional/instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame). Respondents indicated how they behaved in stressful situations over the past 6 months on a 4-point scale.

The classification of coping strategies into adaptive and maladaptive is not definitive, as some strategies may have both negative and positive associations based on cultural understanding. Therefore, in the presented study, we decided to use the classification employed in studies on the Slovak population (Zrubcová, 2019; Solgajová, 2018), which defines adaptive coping as strategies focused on the problem and emotions, and maladaptive coping as strategies focused on escape.

2.2 Research Sample

The research sample consisted of 126 respondents ranging in age from 18 to 59 years (M= 32.56), of whom 59.5% were women and 40.5% were men. Data were collected both online and via pen-and-paper format.

During the research, the sample was divided according to the level of perceived stress. The low perceived stress group was represented by 32 respondents (25.4%), the moderate perceived stress group by 71 respondents (56.3%), and the high perceived stress group consisted of 22 respondents (17.5%). One respondent (0.8%) could not be categorized due to missing data (Graph 1).

Regarding resilience levels, the average resilience group was the most represented, consisting of 69 respondents (54.8%). The second most represented was the low resilience group with 41 respondents (32.5%), while the high resilience group consisted of 16 respondents (12.7%). See Graph 2 below.

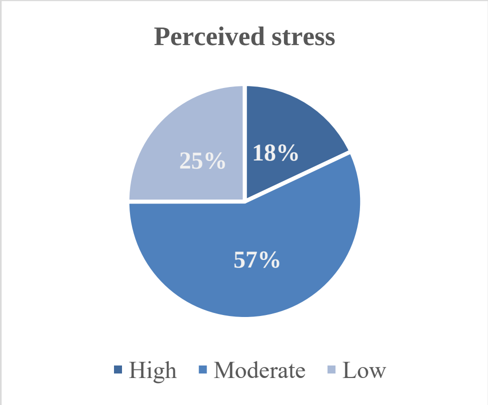

Figure 1 The Perceived Stress Group

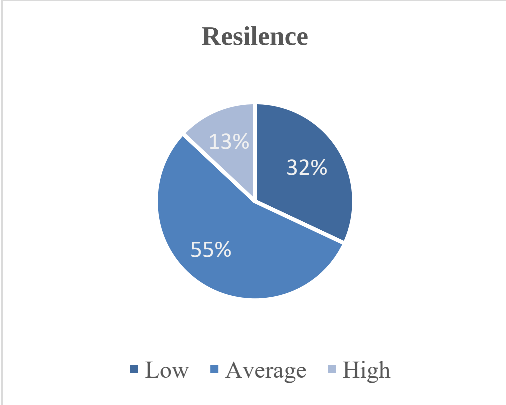

Figure 2 The Resilience Groups

2.3 Data Analysis

Collected data were aggregated in Excel and statistically processed using IBM SPSS. Prior to hypothesis testing, the normal distribution of variables was verified using normality tests (normal distribution Sig.>0.05)

3 RESULTS

Preference for coping strategies across 14 factors of the Brief COPE questionnaire in low and high resilience groups.

In the bivariate frequency analysis of coping strategy variables, only values of 6 (indicating complete agreement and thus preference for the given subscale) were included.

The most frequently chosen coping strategies for the low resilience group were humor (N=10), self-blame (N=10), emotional support (N=7), self-distraction (N=7), and religion/spirituality (N=5).

The most frequently chosen coping strategies for the high resilience group were planning (N=5), active coping (N=4), positive reframing (N=4), acceptance (N=3), and humor (N=3). Results in Table 1.

Table 1 Coping strategy preferences by resilience level

Resilience Group	**Low**		**Average**		**High**	
	N		N		N	
Coping Strategy	Valid	%	Valid	%	Valid	%
Active coping	4	10	16	23	4	25
Planning	4	10	13	19	5	31
Using instrumental support	4	10	7	10	0	0
Positive reframing	3	7	5	7	4	25
Acceptance	1	2	11	16	3	19
Humor	10	24	11	16	3	19
Religion	5	12	5	7	1	6
Using emotional support	7	17	9	13	0	0
Self-distraction	7	17	9	13	2	13
Denial	1	2	0	0	0	0
Venting	4	10	1	1	1	6
Substance use	4	10	3	4	0	0
Behavioral	1	2	1	1	0	0

Disengagement						
Self-blame	10	24	4	6	0	0

Preference for coping strategies across 14 factors of the Brief COPE questionnaire in low and high perceived stress groups.

In the high perceived stress group, the most frequently chosen strategies were self-blame (N=9), humor (N=8), and emotional support (N=6).

In the low perceived stress group, the most frequently chosen strategies were active coping (N=11), planning (N=6), positive reframing (N=6), acceptance (N=6), and humor (N=4). Results in Table 2.

Table 2 Coping strategy preferences by perceived stress level

Perceives Stress Group	**Low**		**Moderate**		**High**	
	N		N		N	
Coping Strategy	Valid	%	Valid	%	Valid	%
Active coping	11	34	11	16	2	9
Planning	6	19	11	16	5	23
Using instrumental support	1	3	7	10	3	14
Positive reframing	6	19	4	6	2	9
Acceptance	6	19	9	13	0	0
Humor	4	13	12	17	8	36
Religion	3	9	6	9	2	9
Using emotional support	2	6	8	11	6	27
Self-distraction	3	9	10	14	5	22
Denial	0	0	0	0	1	5
Venting	1	3	1	1	4	18
Substance use	0	0	6	9	1	5
Behavioral Disengagement	0	0	1	1	1	5
Self-blame	0	0	5	7	9	41

H1: We assume a relationship between perceived stress and resilience.

The correlation between perceived stress and resilience was verified using the Spearman correlation coefficient. Statistical analysis revealed a strong negative relationship between the variables (sig <0.001; ρ = -0.619). See Table 3.

Table 3 Spearman correlations between perceived stress and resilience

Spearman's rho		**Resilience (BRS Score)**
Perceived Stress (PSS-10 Score)	Correlation Coefficient	-0,619
	Sig. (2-tailed)	0,000
	N	125

H2: We assume difference in perceived stress according to resilience level.

The Kruskal-Wallis test was used to verify this hypothesis, yielding x^2 = 37.491; df=2; sig.<0.001. The difference in perceived stress scores among the low, average, and high resilience groups is statistically significant. A statistically significant difference in the level of perceived stress exists between the groups, with the low resilience group achieving the highest score (MR=86.83). The lowest perceived stress was recorded in the high resilience group (MR=24.31).

Table 4 Differences in perceived Stress by resilience level

	Resilience group	N	Mean Rank (MR)
Perceived Stress	Low	41	86,83
	Average	68	57,74
	High	16	24,31

H3: We assume differences in the subscales of adaptive coping strategies (i.e., active coping, planning, positive reframing, acceptance, humor, religion, and emotional, instrumental support) between high resilience group compared to average and low resilience group.

The assumption was verified using the Kruskal-Wallis test with significant results for acceptance (sig.<0.05; x^2=13.307). In the acceptance subscale, participants with high resilience scored highest. For other adaptive strategies, the results were not significant.

Table 5 Differences in adaptive coping strategy subscales by resilience group

Adaptive Coping	Resilience Group	N	Mean Rank
Acceptance	Low	41	46,79
	Average	69	70,5
	High	16	76,13
	Total	126	

H4: We assume differences in the subscales of maladaptive coping strategies (i.e., denial, self-distraction, substance use, behavioral disengagement, venting, and self-blame) between respondents with high resilience compared to those with average and low resilience.

Comparison of scores in maladaptive coping subscales according to resilience level was performed using the Kruskal-Wallis test. Significant differences were observed for venting (sig. <0.001; x^2=24.603), behavioral disengagement (sig. <0.001; x^2=19.932), and self-blame (sig. <0.001; x^2 = 26.026). In each of these significant cases, participants with low resilience achieved the highest scores.

Table 6 Differences in maladaptive coping strategy subscales by resilience group

Maladaptive Coping	Resilience Group	N	Mean Rank
Venting	Low	41	83,91
	Average	69	58,01
	High	16	34,88
	Total	126	
Behavioral Disengagement	Low	41	83,06
	Average	69	56,83
	High	16	42,13
	Total	126	
Self-blame	Low	41	87,2

	Average	69	52,81
	High	16	48,88
	Total	126	

4 DISCUSSION

As demonstrated in numerous studies (Lupien, 2007; Jochmanová et al., 2021), stress has extensive negative impacts on health, functioning, and psychological well-being. International studies (Caffo et al., 2008; Davydov et al., 2010; Windle, 2011; Fletcher & Sarkar, 2013; Basma et al., 2023) have confirmed that resilience and the use of coping strategies support the overcoming of stress, thereby reducing its undesirable health impacts. The present study builds upon these findings, focusing on verifying the associations between perceived stress, resilience, and coping strategies within the adult population in Slovakia.

Our primary interest was identifying preferences for coping strategies in the context of resilience and perceived stress. Regarding resilience levels, highly resilient individuals most frequently chose planning, active coping, positive reframing, acceptance, and humor (i.e., adaptive strategies). The most frequently preferred strategies for the low resilience group were humor, self-blame, emotional support, self-distraction, and religion. These findings are consistent with Van der Merwe et al. (2020), suggesting that individuals with higher resilience use adaptive coping strategies under stress, whereas those with low resilience incline toward maladaptive coping. Similarly, in the context of perceived stress, respondents with low perceived stress leaned toward adaptive strategies (active coping, planning, positive reframing, acceptance, and humor). This result is supported by previous research where individuals experiencing depression, anxiety, and higher stress utilized maladaptive coping strategies to a greater extent (Pidgeon & Pickett, 2017).

The relationship between stress and resilience is closely linked. This research demonstrated a strong negative correlation between resilience and stress, indicating that higher resilience is associated with lower perceived stress. Similar results were noted by Basma et al. (2023), who reported a weak negative relationship between stress and resilience in a sample of medical students, and Smith and Yang (2017), who confirmed a decrease in stress values with increasing resilience. The findings of the current study are also in line with the view of Sarrionandia, Ramos-Diás and Fernándes-Laserte (2018) that highly resilient individuals can more effectively recover from daily stress.

Consistent with research by García-León et al. (2019), where the lower resilience group reported higher perceived stress, in this study individuals with low resilience exhibited the highest perceived stress. Conversely, the high resilience group achieved a significantly lower rate of perceived stress, with a robust difference between groups. In stressful situations, resilience likely buffers perceived stress; if a situation is perceived as less burdensome, it can be managed more effectively (Rahimi et al., 2014; García-León et al., 2019).

According to Gloria and Steinhardt (2013), more resilient individuals incline toward adaptive coping strategies, while low-resilience individuals choose maladaptive ones. When comparing adaptive coping subscales across low, average, and high resilience groups, significant differences appeared only in the acceptance subscale. Although highly resilient individuals scored higher in other adaptive subscales, the differences compared to the low resilience group were not significant. In comparing maladaptive strategies, significant results were more frequent (venting, behavioral disengagement, and self-blame), all of which were most utilized by respondents with low resilience.

In conclusion, the findings of this study confirm a significant relationship between perceived stress, personal resilience, and the choice of coping strategies. Our results demonstrate that higher levels of resilience are linked to lower subjectively perceived stress and a higher frequency of adaptive coping mechanisms. Conversely, low resilience was consistently associated with higher stress levels and a reliance on maladaptive strategies. These insights suggest that psychological interventions should consider the interplay between resilience and coping repertoires. Future research could further explore these connections to help individuals navigate stressful environments more effectively and mitigate long-term health risks.

Limits

We identify the limitations of this study as the use of non-probability sampling, uneven representation of respondents in individual subgroups, and the self-reporting nature of the questionnaire battery.

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BÁBKOVÉ DIVADLO AKO SÚČASŤ DETSKÉHO DIVADLA

PUPPET THEATRE AS PART OF CHILDREN'S THEATRE

Ivana Benedikovič Gontková

Abstrakt

Predkladaný príspevok analyzuje historický vývoj a premeny detského bábkového divadla na Slovensku od jeho ochotníckych koreňov v 20. storočí po súčasnosť. Text mapuje inštitucionalizáciu žánru, vplyv českých pedagógov v medzivojnovom období a kľúčový rozvoj v 60. a 70. rokoch, kedy vďaka záujmovej umeleckej činnosti a vzniku literárno-dramatických odborov nadobudol nový pedagogický rozmer. Príspevok sa zameriava na vybrané celoštátne prehliadky (Loutkářská Chrudim, Bábkarská Žilina) a nástup novej divadelnej poetiky (otvorené vedenie bábok, živý herec). Reflektuje úpadok záujmu po roku 1990 a v závere konštatuje potrebu revitalizácie tohto divadelného druhu. Autor navrhuje, aby sa riešenie súčasnej stagnácie opieralo o systematickú prípravu budúcich pedagógov dramatickej výchovy, čím sa zabezpečí kontinuita dedičstva slovenského bábkarstva.

Kľúčové slová*: detské bábkové divadlo, ochotnícke divadlo, ZUČ, LDO, Loutkářská Chrudim, Bábkarská Žilina, dramatická výchova, Slovensko, história bábkového divadla*

Abstract

The article analyses the historical development and transformations of children's puppet theatre in Slovakia from its amateur roots in the 20th century to the present day. The text maps the institutionalisation of the genre, the influence of Czech teachers in the interwar period and the key development in the 1960s and 1970s, when, thanks to Záujm's artistic activity and the emergence of literary and dramatic disciplines, it acquired a new pedagogical dimension. The article focuses on selected national exhibitions (Loutkářská Chrudim, Bábkarská Žilina) and the emergence of new theatre poetics (open puppet management, live actor). It reflects on the decline in interest after 1990 and concludes by stating the need to revitalise this theatre genre. The author suggests that the solution to the current stagnation should be based on the systematic preparation of future teachers of drama education, thus ensuring the continuity of the heritage of Slovak puppetry.

Keywords: *children's puppet theatre, amateur theatre, ZUC, LDO, Loutkářská Chrudim, Puppet Theatre Žilina, drama education, Slovakia, history of puppet theatre*

ÚVOD

Na úvod nášho článku je potrebné vymedziť pojmy a oblasť, ktorej sa budeme venovať. Bábkové divadlo je plnohodnotný divadelný druh, využívajúci na svoju produkciu bábku, ktorá je animovaná hercom – vodičom. Definícia samotnej bábky už taká jednoznačná nie je. Môže ísť o animovanú figúru z rôzneho materiálu, ale rovnako to môže byť akýkoľvek predmet v rukách vodiča, ktorý ho svojou aktivitou dostáva do pohybu. Najvýstižnejšia definícia by teda mohla znieť takto: *„Bábka je čaro oživenej hmoty."*[1] Práve čaro transformácie neživého na živé dáva priestor ľudskej fantázii naprieč všetkými vekovými kategóriami a obzvlášť dobre funguje u detského diváka. Čo sa však stane, ak sa karta obráti

[1] In: *Loutkové divadlo jako kulturní fenomén* [online] Dostupné na: https://muzeum-loutek.cz/edukace-v-loutkarstvi/index.php/ceske-loutkarstvi/loutkove-divadlo-jako-kulturni-fenomen [Cit. 2025-10 -11]

a nepracujeme s detským divákom, ale detským hercom? Divadlo pre deti sa zmení na detské bábkové divadlo. Divadlo, ktoré vedie deti k samostatnému účinkovaniu, k schopnosti uvoľňovať a kultivovať vlastnú predstavivosť a nadväzovať tvorivý kontakt s bábkou.[2]

1 OD BÁBKOVÉHO DIVADLA PO DETSKÉ BÁBKOVÉ DIVADLO

Pri skúmaní vývojovej línie bábkového divadla v kontexte detského divadla je nevyhnutné zohľadniť ako vývoj profesionálneho, tak aj ochotníckeho bábkového divadla, nakoľko ide o kontinuálnu a vzájomne prepojenú líniu. Profesionalizácia bábkového divadla na Slovensku bola pomerne oneskorená. Tento jav bol primárne determinovaný dlhodobým vnímaním bábkového divadla ako menej hodnotného divadelného žánru. Kým došlo k inštitucionálnemu ukotveniu profesionálneho bábkového divadla, rozvíjal sa tento divadelný druh na našom území v rámci niekoľkých špecifických vývojových línií. Najprirodzenejšou líniou bolo ľudové divadlo, v ktorom bábky tvorili integrálnu súčasť vžitej tradície. Táto tradícia sa udržiavala predovšetkým počas sviatočných období. Či už išlo o vianočné hry a zobrazenie betlehemu s vyrezávanými figúrkami, alebo o rozpohybovaných manekýnov počas fašiangových sprievodov, bolo zastúpenie bábky v ľudovej divadelnej tradícii nespochybniteľné s vlastnou dramaturgickou a estetickou genézou.

S kočovnými hercami na územie Slovenska prišla aj forma bábkového divadla, ktorú dnes označujeme ako tradičné bábkové divadlo. Dedičstvom tradičného bábkového divadla sú predovšetkým marionety a adaptácia činoherných textov pre bábkové divadlo. Postupne sa z týchto dvoch línií vyvinulo ochotnícke divadlo, ktoré sa stalo významným kultúrno-spoločenským prvkom a preberalo aj vzdelávaciu funkciu. Vzdelávacia funkcia bábkového divadla sa začala výraznejšie rozvíjať v období osvietenstva a súvisela s národným obrodením – najskôr v Čechách a následne aj na území dnešného Slovenska.

1.1 Bábkové divadlo po roku 1918

Po vzniku spoločného Československého štátu dostalo bábkové divadlo na území Slovenska nový rozmer. Českí vzdelanci, ktorí prichádzali na naše územie, prinášali so sebou tiež svoje skúsenosti a vízie, ako aj metodiku pedagogického pôsobenia, dramaturgiu, texty, scény, bábky a pod.[3] Jindřich Květ[4] na toto obdobie spomínal takto:

„Když jsme začátkem r. 1919 prišli na Slovensko, vedlo sa nám v loutkářství právě tak, jako jiným nadšeným a zkušeným pracovníkum v jiných oborech lidovýchovy. [...] *Věděli jsme, že musíme pracovat, že nesmíme strácet času, ale nikdo nám nedovedl poradit, jak začít a kudy do toho.“*[5]

Vďaka Osvetovému zväzu[6], ktorý zohral významnú úlohu aj pri vri vzniku ochotníckeho divadla, založil Jindřich Květ v roku 1920 bábkarský krúžok. Ešte v tom istom roku zaradil

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[2] Encyklopédia dramatických umení Slovenska1. editor: VLADÁR.J., Bratislava: Vydavateľstvo slovenskej akadémie vied, s. 236. ISBN 80-224-0000-9

[3] HAMAR, Juraj, (2020). *Úvod do estetiky bábkového divadla*. Bratislava: Slovenské centrum pre tradičnú kultúru / STIMUL poradenské a vydavateľské centrum FF UK, s. 20. ISBN 978-80-970098-3-0

[4] **Jindřich Květ** (1890 – 1948) – muzikológ a bábkar. Vyštudoval hudobnú vedu a právo na UK v Prahe. V rokoch 1919 – 1938 pôsobil ako sudca v Bratislave. Zaoberal sa výskumom hudobného života v Bratislave (Hudba v starom Prešporku, 1927; J. L. Bella, 1925; J. Haydn a Bratislava – nedokončená), publikoval historické a kritické články v Robotníckych novinách a Slovenských pohľadoch. V 20. rokoch založil pri Osvetovom zväze pre Slovensko bábkarský krúžok. In: Encyklopédia dramatických umení Slovenska, (1989). 1. diel (A – L). Bratislava: Vydavateľstvo Slovenskej akadémie vied, s. 652. ISBN 80-224-0000-9

[5] KVĚT, Jindřich, (1928). Deset roků loutkářství na Slovensku. In: *Loutkář*, roč.15, 1928, č. 3 – 4, s. 49 – 61.

[6] Osvetový zväz pre Slovensko – založený v roku 1919 so sídlom v Bratislave. Bola to štátna odborná a metodická inštitúcia s celoslovenskou pôsobnosťou, ktorá koordinovala činnosť osvetových zborov, organizovala vzdelávacie kurzy, zjazdy a porady pre osvetových pracovníkov, vzorové podujatia a úzko spolupracovala s celoštátnymi kultúrnymi spolkami, ako napr. Matica slovenská, Československý červený kríž, Živena, Sokol. Osvetový zväz, osvetové zbory, komisie spolu s ďalšími inštitúciami a spolkami vytvárali

Osvetový zväz do vzdelávacieho kurzu pracovníkov na Slovensku a v Podkarpatskej Rusi prednášku o bábkovom divadle. Jeho činnosť v oblasti bábkového divadla pokračovala v roku 1922 prípravou kurzu pre osvetových pracovníkov z vidieka, kde Jindřich Květ prezentoval prednášku o bábkovom divadle. V roku 1924 Osvetový zväz zaškolil 47 vidieckych osvetových pracovníkov v oblasti bábkového divadla. Nasledovalo niekoľko ďalších prednášok o bábkovom divadle, ktoré Jindřich Květ predniesol pri rôznych príležitostiach (1926 – Zjazd osvetových pracovníkov zo Slovenska v Turčianskych Tepliciach, 1927 – Zjazd ľudovo-výchovných pracovníkov v Banskej Bystrici, kde sa okrem prednášky konal aj praktický výcvik).

V roku 1928 vyšlo v spolupráci s Osvetovým zväzom špeciálne tzv. slovenské číslo časopisu *Loutkář*[7] s podtitulom *Desať rokov lútkarstva na Slovensku*, ktoré redigoval Jindřich Květ v spolupráci s doktorom Jindřichom Veselým (1885 – 1939). Okrem esejisticky ladených príspevkov významných kultúrnych osobností, spisovateľov a dramatikov, ktorí písali svoje spomienky na bábkové divadlo, sa tam nachádzajú aj informácie o vzniku ochotníckych divadiel na Slovensku a metodické usmernenia na zriadenie a tvorbu bábkového divadla. V nasledujúcom roku 1929 prišlo k významnej udalosti. V Prahe na 5. Zjazde českých a slovenských bábkarov bola založená Medzinárodná bábkarská únia – UNIMA (Union International de la Marionnette). Tým sa bábkové divadlo stalo medzinárodne akceptovaným divadelným druhom v kontexte československých dejín a teórie divadla.[8]

Prvé pokusy o oživenie bábkového divadla na Slovensku zaznamenávame v medzivojnovom období zásluhou Osvetového zväzu pre Slovensko a koncom 20. rokov 20. storočia aj Ústredia slovenských ochotníckych divadiel. Problémom, okrem nedostatočného bábkarského vybavenia, bol aj repertoár, ktorý v podstate neexistoval. Počas prvej Československej republiky sa bábkové divadlo na Slovensku rozmohlo na ochotníckej báze. Do popredia sa však dostávala najmä jeho mimoestetická funkcia a pre slovenskú verejnosť sa do povedomia zapísalo ako zábavka pre deti, v lepšom prípade ako dôležitý pedagogický prostriedok výchovy dieťaťa.[9]

1.2 Bábkové divadlo a počiatky detského bábkového divadla po druhej svetovej vojne

Po vzniku vojnového Slovenského štátu v roku 1939 Slovensko opustila väčšina českých kultúrnych pracovníkov a vládnym nariadením boli zrušené tiež mnohé kultúrne spolky. Tak na bola niekoľko rokov utlmená snaha o obnovu bábkarskej činnosti. Po druhej svetovej vojne nastal zlom a bábkovému divadlu opäť začalo svitať na lepšie časy. Dôležitým míľnikom bolo prijatie nového divadelného zákona v roku 1948, ktorý začlenil bábkové

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možnosti a priestor pre realizáciu osvetových aktivít. Osvetové inštitúcie sa až do roku 1940 rozvíjali súčasne s rozvojom osvety ako celku. V rokoch 1940 – 1945 pôsobilo na Slovensku Osvetové ústredie ako ústredný orgán pre otázky. [online]. Dostupné na: https://fphil.uniba.sk/fileadmin/fif/katedry_pracoviska/kped/projekty/projekt_Stanem_sa_ucITelom/Acta_Andragogica/4-11.pdf [Cit. 2025-11-06]

[7] *Loutkář* – najstarší odborný bábkarský časopis na svete. Vychádza od roku 1912. Súčasný časopis Loutkář je nástupcom časopisov Český loutkář, Loutkář, Loutková scéna a Československý loutkář. Od roku 1951 vychádza bez prerušenia ako špecializovaný mesačník Československý loutkář, po rozdelení Českej a Slovenskej federatívnej republiky od roku 1993 opäť pod názvom Loutkář. Vo funkcii šéfredaktora sa vystriedala rada výrazných osobností českého bábkarského života – predovšetkým Jindřich Veselý, Jan Malík, dlhšiu dobu vo funkcii šéfredaktora pôsobil Miloslav Česal, Eva Hanžlíková, Pavel Vašíček a od roku 2000 do júla 2015 Nina Malíková. Súčasnou šéfredaktorkou je Kateřina Dolenská. Loutkář zohral značnú rolu aj v histórii Medzinárodnej bábkarskej organizácie UNIMA (založenej v roku 1929 v Prahe), ktorej tlačovým orgánom bol v rokoch 1929 – 1930 a o činnosti UNIMA dodnes prináša pravidelné informácie.

[8] HAMAR, c. d., 2020, s. 21.

[9] PREDMERSKÝ, Vladimír a kol., (2020). *Dejiny slovenskej dramatiky bábkového divadla*. Bratislava: Divadelný ústav v Bratislave, s. 41. ISBN: 978-80-8190-061-7

divadlo – po prvý raz v dejinách divadla – do sféry divadelného umenia. Dovtedy zákony bábkarov „vykazovali“ do sféry kolotočov, strelníc a púťových zábaviek.[10]
Genéza detského divadla a detského bábkového divadla je historicky spätá najmä s neformálnym vzdelávaním a voľnočasovými aktivitami. V raných štádiách neexistovalo detské divadlo ako samostatná entita, ale skôr ako organická súčasť dospelého ochotníckeho divadla. Táto symbióza zabezpečila kontinuitu divadelnej tradície, pričom detské súbory z ochotníckeho prostredia hlavne vo svojich začiatkoch využívali nielen technické zázemie, ale aj repertoárovú skladbu dospelých ochotníckych súborov.
Hoci si detské divadlo dodnes zachováva istú mieru spriaznenosti s ochotníckym divadlom, prelomovým momentom bolo zakladanie dramatických odborov na pôde ZUŠ (predtým Ľudových škôl umenia). Práve inštitucionalizácia umeleckého vzdelávania priniesla do detskej tvorby metodiku, pedagogický rozmer a nové estetické kritériá. Tým sa detské divadlo transformovalo z čisto voľnočasovej aktivity na špecifickú umeleckú disciplínu s vlastnou poetikou, ktorá však stále čerpala podnety z ochotníckej kultúry a tradícií neprofesionálneho divadla. V *Československom loutkáři* nachádzame informácie o prvých krokoch detského divadla, pričom informácie o bábkovom divadle v kontexte detského divadla sa objavujú až v 50. rokoch 20. storočia, keď sa formujúca sa socialistická spoločnosť začala zaujímať o voľný čas pracujúcich, aj o voľný čas školopovinnej mládeže. Zriaďovali sa domy pionierov a mládeže s rôznymi záujmovými krúžkami, medzi ktorými boli aj divadelné, recitačné a bábkarské krúžky. Vznikli osvetové centrá s malými javiskami, ktoré detskému divadlu otvorili nové možnosti. Objavili sa aj prvé metodické príručky a materiály. Problémom bol však repertoár detských divadiel. Spoločenský dopyt bol veľký, ale pôvodných hier bolo málo. Zaužívanou praxou bol prenos titulov z repertoáru dospelých súborov do detských súborov. Bežnou praxou v tomto období boli tiež vystúpenia zmiešaných ochotníckych súborov dospelých a detí. Takouto inscenáciou bola aj *Zlatovláska* J. Kainara, ktorú inscenoval Trenčiansky súbor v roku 1955 na prvej celoštátnej prehliadke bábkarských súborov v Bratislave.[11] V kontexte záujmu štátu o mimoškolské aktivity detí a mládeže sa Matica slovenská, školská správa, odbory i mládežnícka organizácia usilovali bábkovému divadlu pomáhať školeniami i publikačnou činnosťou. V tomto období mali bábkarské súbory dostatočne pevnú organizačnú základňu a podmienky pre svoj rast. Vznikla celoštátna prehliadka Ľudovej umeleckej tvorivosti (ĽUT)[12], kde sa prezentovali aj bábkarské súbory a zároveň prvá celoštátna prehliadka bábkarských súborov Bábkarská Chrudim. O postupnej premene štruktúry amatérskeho bábkarstva a úbytku dospelých súborov v prospech detských bábkarských súborov píše Vladimír Štefko v publikácii *Slovenské ochotnícke divadlo* (1979), pričom poukazuje na markantný rozdiel v zastúpení kolektívov na prestížnych prehliadkach:
„... na celoslovenských a celoštátnych prehliadkach vystupovali zo Slovenska spočiatku vždy dva až sedem súborov dospelých a ani jeden detský. No od roku 1970 robí problém ‚zohnať‘ na celoštátne prehliadky 1 – 2 súbory dospelých. Jasným dokladom je posledná VIII.

[10] ŠTEFKOVÁ, Alena, (2008). Keď ešte bolo bábkové divadlo. In: *Javisko*, roč. 40, 2008, č. 1, s. 5. Bratislava: Obzor. [online]. ISSN 0323-2883. Dostupné z: https://dikda.snk.sk/uuid/uuid:176f5df0-d2f2-4f5a-9961-8752d1afb15f [Cit. 2025-08-11]
[11] TŮMA, A., Vznik a práce Malé loutkové scény, In: *Československý loutkář I,* 1951, podľa PROVAZNÍK, Jaroslav, (2018). *Děti a loutky.* Praha. Nakladatelství AMU, s. 11. ISBN 978-80-7331-111-7
[12] ĽUT – celoštátna súťažná prehliadka ľudovej umeleckej tvorivosti, na ktorej sa súťažilo v rôznych umeleckých disciplínach (napríklad folklór, spev, tanec). Súťaž mala postupový charakter, s regionálnymi a okresnými kolami, ktoré vyvrcholili celoštátnym finále. Bola významným kultúrnym fenoménom v období socializmu v Československu, najmä v rokoch 1950 až 1980.

Bábkarská Žilina[13]*, celoštátna prehliadka bábkarských súborov, na ktorej vystúpil zo Slovenska už len jeden súbor dospelých a päť súborov detských.“*[14]

Možno konštatovať, že práve toto obdobie bolo dôležitým medzníkom pre bábkové divadlo, ktoré sa stalo súčasťou detského divadla. Počet detských bábkových súborov na Slovensku narastal. Dospelé amatérske bábkové súbory ubúdali a nahrádzali ich profesionálne bábkové súbory a divadlá. Významným medzníkom pre formovanie detského bábkového divadla bola IX. Loutkářská Chrudim v roku 1960. Na tejto celoštátnej prehliadke sa v rámci súťažného programu objavili dva súbory, ktoré sa svojím vekovým zložením a prístupom k tvorbe výrazne priblížili k neskoršej definícii detského bábkového súboru. Prvým bol vekovo zmiešaný Mládežnícky súbor Loutkovej scény ZK Družba Smiřice. Druhým, pre slovenskú teatrológiu zásadnejším, bol Detský bábkarský súbor Ústredného bratislavského Domu pionierov a mládeže (ďalej len súbor DPM). Tento súbor prezentoval inscenáciu *O domčeku na kopčeku*, ktorú režírovala Jarmila Mikulová. Išlo o maňuškovú inscenáciu, ktorá sa ukázala byť vizionárskou a predznamenala nástup éry autorského detského divadla, ktoré sa naplno etablovalo na prehliadke už o rok neskôr. Inscenácia *O domčeku na kopčeku* je považovaná za prelomovú, pretože po prvýkrát boli na javisku plne rešpektované špecifické požiadavky, výrazové možnosti a prirodzenosť detského herca. Vďaka tomuto prístupu pôsobila inscenácia autenticky a sviežo, čím sa odlíšila od vtedajšej dospelými režírovanej a interpretovanej tvorby. Tento posun v nazeraní na detského interpreta výstižne zhodnotil Jaroslav Provazník, ktorý predstavenie označil za „most do 60. rokov“ – pomyselnú hranicu pred príchodom prvej veľkej vlny moderného detského divadla, ktorá nastala v prvej polovici 60. rokov 20. storočia. Už v nasledujúcom roku sa na X. ročníku predstavila Hana Budínska, ktorá viedla detský bábkarský krúžok pražského ÚDPM JF.[15] Inscenácia *Pohádka o malém ježkovi* bola bez výhrad prototypom detského autorského divadla a Hana Budínska sa na niekoľko najbližších ročníkov stala jeho priekopníčkou.[16]

Dynamickému rozvoju detského divadla v 60. rokoch napokon významne napomohla aj inštitucionalizácia odboru, konkrétne postupné formovanie literárno-dramatických odborov (LDO) na vtedajších ľudových školách umenia (ĽŠU, dnes ZUŠ). Vznik LDO nebol celoplošný a okamžitý, ale postupný proces. Podľa dostupných informácií bol prvý literárno-dramatický odbor na Slovensku založený v roku 1960 na ĽŠU v Žiline[17], a to vďaka iniciatíve bábkara a pedagóga Vladimíra Šupku.[18] Tento krok poskytol žánru odborné pedagogické zázemie a ucelenú metodiku, čím sa detské divadlo definitívne oddelilo od čisto amatérskeho ochotníckeho prúdu. Okrem toho sa v tomto období objavilo viacero kľúčových iniciatív, ktoré akcelerovali rozvoj detského divadla v celom Československu. Nemožno prehliadnuť aktivity pražského Ústavu kultúrno-výchovnej činnosti (ÚKVČ). V rámci tejto inštitúcie sa sformovala vplyvná skupina pedagógov, divadelníkov a teoretikov, ktorí vo svojich programových vyhláseniach a štúdiách označili detské divadlo za jeden z

[13] Prvá celoštátna prehliadka amatérskych bábkarských súborov Bábkarská Žilina sa uskutočnila v roku 1961. Toto podujatie malo dlhoročnú tradíciu a konalo sa pravidelne (zvyčajne každé dva roky) až do konca 80. rokov, pričom VIII. ročník sa konal v roku 1979.

[14] OZÁBAL, Ján, (1979). Z dejín slovenského amatérskeho bábkarstva po roku 1945 In: *Slovenské ochotnícke bábkové divadlo*. Ed. Vladimír Štefko. Banská Bystrica: Tlačiarne Slovenského národného povstania, n. p., s.29. 65-035-79

[15] DLS ÚDPM JF - Dětský loutkářský soubor Ústředního domu pionýrů a mládeže Juraja Fándlyho,

[16] PROVAZNÍK, Jaroslav, (2018). Děti a loutky. Praha: Nakladatelství AMU, s. 36. ISBN 978-80-7331-111-7

[17] Dostupné online https://www.zuszilina.sk/historia-skoly/ [Cit. 2025-11-15]

[18] Vladimír Šupka (1927 – 1980) - bol významný slovenský bábkar, pedagóg, režisér a teoretik bábkového divadla. Pôsobil ako riaditeľ Krajského bábkového divadla v Žiline (dnes Bábkové divadlo Žilina) a je považovaný za zakladateľa prvého literárno-dramatického odboru na Slovensku (v Žiline, r. 1960). Bol jednou z najrešpektovanejších osobností slovenského bábkarstva, ktorá sa zaslúžila o prechod od tradičného ochotníckeho bábkarstva k profesionálnemu divadlu pre deti s vlastnou estetikou a metodikou.

najúčinnejších a najkomplexnejších prostriedkov výchovy mladej generácie. Táto nová metodologická platforma viedla k vzniku špecializovaného periodika *Divadelní výchova* pod záštitou ÚKVČ. Časopis *Divadelní výchova* slúžil ako dôležitá publikačná platforma pre šírenie nových pedagogických prístupov, metodických materiálov, recenzií a diskusií, čím sa významne posilnila teoretická základňa rodiaceho sa odboru a prepojila sa česká a slovenská detská divadelná scéna.

1.3 Detské bábkové divadlo v 70. a 80. rokoch 20. storočia

Napriek vzniku LDO na ZUŠ prevažná väčšina detských bábkových súborov na Slovensku v 70. rokoch ešte stále vznikala predovšetkým v rámci záujmovej umeleckej činnosti (ZUČ) pri rôznych kultúrno-osvetových inštitúciách ako boli domy pionierov a mládeže, kultúrne domy, osvetové strediská, odbory Matice slovenskej a Živeny, ale tiež na základných školách. Tieto tvorivé kolektívy mali často ambíciu vytvárať vlastné, originálne hry a využívali metódy improvizovaných etúd. V dôsledku toho sa funkcia režiséra a autora v praxi často zlievala do jednej osoby – vedúceho súboru. Paralelne s týmto trendom sa však stále udržovala myšlienka bábkového divadla určeného výhradne detskému publiku, teda rovesníkovi.

Kľúčovým momentom vo vývoji bolo postupné zapájanie profesionálnych bábkarov do ZUČ. Išlo o prvých absolventov Katedry bábkoherectva na DAMU v Prahe, ktorých k bábkovému divadlu paradoxne inšpirovalo a formovalo práve autentické ochotnícke prostredie detského divadla, v ktorom sami vyrastali. Ich vstup priniesol do amatérskej sféry novú úroveň odbornosti a metodiky. Hoci si detské bábkarské súbory v 70. rokoch zachovávali svoju autenticitu a špecifickú poetiku, inšpirácia prichádzajúca z profesionálnych divadiel bola nepopierateľná. Oba smery – amatérsky aj profesionálny – sa stretli v jednom z najvýraznejších trendov toho obdobia: v príchode živého herca na javisko a s tým spojené odkryté vedenie bábok. Táto inovácia však vyvolala diskusie. Pre zástancov tradičnej, ilузívnej formy bábkového divadla, ktorí trvali na skrytom ovládaní bábky a uveriteľnej divadelnej ilúzii, bolo odkryté vedenie a prítomnosť herca na scéne ťažko akceptovateľné, ba až rúhavé voči tradícii. Na druhej strane, pre progresívne zmýšľajúcich divadelníkov a teoretikov to bola podnetná a novátorská cesta k redefinícii bábky a celého bábkového divadla. Odkryté vodenie prinieslo novú divadelnú poetiku, ktorá umožnila dynamickejšiu interakciu medzi hercom, bábkou a divákom, čím sa žáner revitalizoval a otvoril novým výrazovým možnostiam.

Dobová divadelná kritika neustále zápasila s ideologickou požiadavkou, že detské divadlo musí spĺňať primárne poznávaciu, výchovnú a estetickú hodnotu. Vtedajší diskurz často opomínal špecifický detský aspekt ako legitímny druh stvárnenia skutočnosti. Detská interpretácia, ktorá je deťom prirodzene najbližšia – teda hra, nebola braná do úvahy ako plnohodnotný umelecký nástroj. Niektorí kritici vyhranene argumentovali: buď je detské divadlo umenie s jasnými parametrami porovnateľné s dospelým divadlom, alebo umelecké parametre nemá a nemáme v ňom hľadať to, čo tam deti úmyselne nevkladali. Detská interpretácia na javisku však napriek tomu odkrývala odlišnú, autentickejšiu súčasnosť. Témy, príbehy a spôsob interpretácie sa prirodzene stávali súčasťou syntetického divadelného diela. V ňom sa organicky spájala hudba, spev, hovorené slovo, štylizovaný pohyb a často výrazná až groteskná nadsádzka. Niekedy dokonca vznikal dojem, že za divadelnými metaforami sa ukrýva deťmi vnímaná kritická reflexia sveta, v ktorom žijú. Táto autenticita sa neprejavovala len v pôvodných autorských hrách, ale aj v adaptáciách známych rozprávok či iných dramatizáciách.[19]

[19] ŠÁRIK, Ľubomír, (2019), Od správ k dialógu a komunikácii - Detská dramatická tvorivosť v časopise Javisko In: *50 rokov Javiska - zborník odborných referátov k výročiu vydávania časopisu,* Bratislava: Národné osvetové centrum, s. 98. ISBN 978-80-7121-361-1

V rokoch 1968 – 1970 sa vyhlasovatelia súťaže ZUČ dohodli na dvojročnom súťažnom cykle, ktorý však detským bábkarským súborom veľmi nevyhovoval, keďže bol problém fixovať hravosť a úroveň inscenácií s detskými súbormi. Na druhej strane bolo pre bábkarov obrovským úspechom, že sa v rokoch 1973 – 1981 začali celoštátne súťažné prehliadky striedať – v jednom roku Bábkarská Chrudim a v druhom roku Bábkarská Žilina.[20] Rok 1973 znamenal zároveň prelom, keď sa končí etapa detského divadla v programe Loutkářskej Chrudimi v podobe, ako ju poznali doteraz. Ťažisko detskej tvorby sa začalo presúvať na špecializované podujatia. Na úspešnú trnavskú prehliadku v roku 1974 nadviazala prvá národná prehliadka detských súborov v Kapliciach (ČR). Týmto sa detské bábkové divadlo definitívne etablovalo na pôde špecializovaných prehliadok, kde sa konečne dočkalo adekvátneho prostredia, odbornej poroty a relevantnej metodiky v kontexte dramatickej výchovy. Postupný nárast tlaku na redukovanie prehliadok, viedlo k vytvoreniu jednej spoločnej prehliadky „detského a bábkového divadla“. Od roku 1986 prijíma prehliadka v Šali pod svoju strechu detské bábkarské súbory a Bábkarská Žilina okrem detských a dospelých bábkarských súborov hostí aj činoherné súbory.
Osemdesiate roky 20. storočia priniesli do detského divadla, a špecificky do detského bábkového divadla, výrazné zmeny, ktoré reflektovali širšie kultúrne a filozofické posuny smerom k otvorenej spoločnosti. Na javisku sa začali prelínať klasické interpretačné postupy s modernými a napokon aj so súčasnými, postmodernými tendenciami. Tieto trendy narúšali pevnú dramatickú štruktúru, pričom hra samotná sa transformovala na estetický objekt, v ktorom sa ústredná myšlienka ukrývala skôr v asociáciách než v jednoduchom, priamočiarom deji. Napriek nástupu dekonštrukčných a dekompozičných princípov v umení 80. rokov sa tieto postupy v divadle hranom deťmi neujali v takej miere ako v profesionálnej sfére. Hlavným dôvodom bolo, že absencia súvislej narácie a rozbitie príbehu na fragmenty komplikovali adekvátne vyjadrenie interpretačného potenciálu detského herca v limitovanom priestore. Okrem týchto praktických prekážok existoval aj zásadný estetický rozpor. Charakteristickým znakom vtedajšieho profesionálneho umenia bola často „neautenticita“ či odstup, zatiaľ čo divadlo tvorené deťmi prirodzene inklinovalo k priamosti, pôvodnosti a bezprostrednosti výpovede. Tieto hodnoty boli v priamom protiklade k štylizovaným trendom doby, čo bránilo výraznejšiemu prenikaniu radikálnych postmoderných prúdov do detskej tvorby. Hoci sa objavovali experimenty s divadelným tvarom, ktoré niekedy pripomínali radenie etúd ako veštenie z kerát, tvorba sa sústavne vracala k príbehovej osi, čo diváci oceňovali. Človek je prirodzene „zabývaný“ v príbehoch, ktoré inštinktívne tvorí aj v bežnom živote. Jedným z najvýraznejších prejavov postmoderny, ktorý sa v detskom divadle udomácnil, bola karnevalizácia hereckých kreácií a osnovy príbehu. Táto sa uplatňovala bez ohľadu na to, či šlo o divadlo interpretované priamo dieťaťom, alebo prostredníctvom predmetu, zástupného znaku či bábky.[21]
Do detského bábkového divadla prenikali prvky činohry a bábka, kedysi hlavný a nedotknuteľný vyjadrovací prostriedok, sa neraz menila iba na rekvizitu. Bola hercom „nosená“, strácala svoju animovanú funkciu a prestávala hrať v tradičnom zmysle slova. Táto zmena bola daňou za prebiehajúce procesy, v ktorých bábka akoby stratila dôveru tvorcov, či presnejšie, tvorcovia ju nedokázali zmysluplne zapojiť do novej javiskovej štruktúry. Výsledkom bol paradox:
„*Tak ako sa kedysi z predmetu stával divadelný znak, teraz sa stávalo, že znak sa menil späť iba na predmet.*“[22]
Tento vývoj posilňoval výtvarnosť inscenácií a, samozrejme, aj hudobnosť. Hudba neplnila len funkciu rytmizácie či spájania jednotlivých sekvencií (aj do bábkového divadla

[20] ŠTEFKOVÁ, c. d., (2008), s. 5.
[21] ŠÁRIK, (2019), s. 99.
[22] ŠTEFKOVÁ, c. d. (2008), s. 7.

vstupovala fragmentácia v podobe leporel, montáží, pásiem a revue), ale v najlepších prípadoch sa stávala rovnocenným významovým partnerom herca, bábky a dynamickej scénografie. Doba sa otvorila všetkým témam, stratil sa prehnaný výchovný dôraz na produkciu divadla hraného deťmi, a divadlo sa tak oslobodilo od ideovej kolektívnej záťaže predošlých dekád.
Modernému detskému divadlu mimoriadne prospievala možnosť výmeny tvorivých skúseností na celoštátnych prehliadkach, ktoré organizovala ZUČ. Tie poskytovali súborom z Čiech a Slovenska cenný priestor na konfrontáciu a vzájomnú inšpiráciu. Žiaľ, po zavedení periodizácie prehliadok, ktoré sa mali konať v dvojročných cykloch, došlo v Národnom osvetovom centre (NOC) k redukcii zamestnancov, rušeniu a spájaniu jednotlivých odborných úsekov a kompetencií. Ako vo svojich spomienkach uvádza Brigita Koppová,[23] keď sa detské bábkové divadlo dostalo pod jej odbornú gesciu, z celkového počtu 398 detských súborov evidovaných v roku 1984 tvorili bábkarské súbory až 59 %. Spoločné celoštátne prehliadky detského a bábkového divadla boli od roku 1981 už len históriou. Avšak, pre bábkarské súbory sa otvorili nové možnosti: od roku 1986 sa mohli hlásiť na prehliadku do Šale a Bábkarská Žilina začala pozývať detské bábkové súbory aspoň na hosťovanie, čím sa zachovala kontinuita ich prezentácie.[24] Spoločné celoštátne prehliadky boli od roku 1981 už len históriou. Po poslednej prehliadke Bábkarskej Žiliny v roku 1993 sa celoštátna prehliadka v roku 1996 definitívne presunula do Šale, kde pod názvom **Zlatá priadka** funguje dodnes.

1.4 Destké bábkové divadlo v 80. a 90. rokoch 20. storočia

Ak sme v 80. a na počiatku 90. rokov nadšene vnímali rozvoj bábkového divadla, udržiavanie jeho tradície, rozvíjanie umeleckej hodnoty, od polovice 90. rokov vnímame jeho prudký ústup:
„Prvé ruptúry v systéme práce sa objavili najmä po roku 1990. Neuskutočnili sa všade krajské prehliadky, neraz nebolo dosť súborov... Prudko sa meniace podmienky práce, postupná strata zriaďovateľskej základne, finančné problémy, degradácia učiteľského stavu (ten tvoril dovtedy silnú základňu) a agresívny vstup médií do života ľudí, najmä tých nedávno narodených (mobily, televízne šou, počítače a počítačové hry a i.) odtiahli dospelých tvorcov i deti od bábkového divadla.“[25]
V nasledujúcich rokoch už nezaznamenávame výraznejšie podnety a informácie o napredovaní detského bábkového divadla. Skôr naopak. Postupne sa tak sľubne rozbehnutá línia vytratila a bábkové divadlo v kontexte detského divadla sa začalo vnímať ako prežitok. Prevalcovali ho nové tvorivé smery, ktoré sa sústredili na aktuálne spoločenské témy, interaktivitu a prepájanie rôznych umeleckých a edukačných prístupov s využitím hereckého divadla, ktoré je pre deti často atraktívnejšie než bábkové divadlo. V súčasnosti sa v oblasti detského bábkového divadla stretávame okrem nezáujmu aj s problémom nedostatku kvalifikovaných pedagógov, ktorí by boli schopní viesť bábkarské krúžky na základných umeleckých školách a v centrách voľného času.

[23] Mgr. art. Brigita Hamvasová-Koppová, PhD. - je popredná slovenská divadelná pedagogička, metodička dramatickej výchovy a odborná pracovníčka. Dlhodobo pôsobí v oblasti detského divadla a detskej dramatickej tvorivosti, predovšetkým v rámci Národného osvetového centra (NOC) v Bratislave (predtým Osvetový ústav), kde sa venuje metodike a organizácii celoslovenských súťaží a prehliadok (napríklad Zlatá priadka). Je autorkou a spoluautorkou viacerých odborných publikácií, metodických príručiek a článkov zameraných na prácu s deťmi v divadle.
[24] KOPPOVÁ, Brigita, (2007). O detskom divadle v uplynulom tisícročí. In: *Javisko*, roč. 39, 2007, č. 1, s. 4 – 9. ISDS – ISSN 0323 2883
[25] ŠTEFKOVÁ, c. d. (2008), s. 7.

ZÁVER

Bábkové neprofesionálne divadlo, z ktorého vzišlo aj detské bábkové divadlo, si vydobylo svoje pevné postavenie na Slovensku už v medzivojnovom období minulého storočia, čo predstavuje dedičstvo staré vyše sto rokov. Táto bohatá história svedčí o hlboko zakorenenej tradícii tohto druhu umenia v našej kultúre. Jeho aktuálna, citeľná stagnácia v oblasti detského divadla v priebehu posledných rokov je neuspokojivým signálom, ktorý nemožno ignorovať. Riešenie a oživenie detských bábkarských divadelných aktivít by sa malo odvíjať predovšetkým od systematickej prípravy budúcich pedagógov. Kľúčovým krokom je zabezpečiť, aby vyštudovaní pedagógovia dramatickej výchovy mali reálnu šancu stretnúť sa s bábkovým divadlom a jeho jedinečnými princípmi už počas svojho vysokoškolského štúdia. Budúcnosť tohto žánru tak nespočíva len v spomienkach na zlatú éru, ale v aktívnom prepojení tradície s modernou pedagogikou. Potenciál bábky ako magického média v rukách dieťaťa ostáva nevyčerpaný a čaká na novú generáciu odborne pripravených lídrov, ktorí nadviažu na túto jedinečnú tradíciu a vnesú do nej súčasného ducha a metodickú ukotvenosť.

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COMPARISON OF LANGUAGE POLICY IN SLOVENIA AND HUNGARY

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Abstract
This paper offers a comparative analysis of the language policies of the Republic of Slovenia and Hungary from a sociolinguistic perspective. It focuses on the historical development of linguistic identity and the functioning of each state's legal framework. The paper places both cases in their historical context and examines how language operates as a powerful symbolic instrument. The study highlights the asymmetrical Slovenian model, which is rooted in the protection of autochthonous minorities. It contrasts this with Hungary's formally universalist system that grants collective rights to all recognized nationalities. Through this comparison, the paper identifies broader patterns of linguistic governance in Central Europe.

Keywords: *language policy, Slovenia, Hungary, sociolinguistics, language ideologies*

1 INTRODUCTION

Language policy in the Republic of Slovenia constitutes a central instrument for shaping national identity and safeguarding cultural integrity within the geopolitically complex landscape of Central Europe. Language, often conceptualized as a symbolic pillar of national consciousness, functions within Slovenian sociopolitical discourse as a marker of historical continuity and a tool of collective resistance. The importance of language in Slovenia transcends its communicative function; it becomes embedded in the nation's political, cultural, and ideological narratives.

The primary goal of this paper is to analyze the contemporary language policy of Slovenia with emphasis on its legal frameworks, historical foundations, and practical functioning. In the second part, the paper compares the Slovenian model with language policy in Hungary, a state whose linguistic landscape is shaped by parallel yet distinctly formulated normative and practical approaches to linguistic diversity. While Slovenia prioritizes the protection of autochthonous minorities within clearly defined territories, Hungary adopts a formally universalist legal architecture aimed at providing rights to all recognized minority groups regardless of historical origins or demographic size.

The analytical framework of this study relies on sociolinguistic theory, which conceptualizes language as a social phenomenon shaped by power relations, identity formation, and broader historical processes. Through this lens, language policy is not understood merely as a bureaucratic mechanism of the state but as a political instrument capable of reinforcing dominant social groups, protecting minority cultures, or contributing to exclusionary national projects.

2 THEORETICAL FRAMEWORK: A SOCIOLINGUISTIC PERSPECTIVE ON LANGUAGE POLICY

A sociolinguistic perspective allows for an understanding of language policy not only as a set of normative provisions but also as a complex sociopolitical practice. Spolsky (2004, 3) defines language policy as the organized attempt of a society to influence language use, linguistic relationships, and the status of particular languages. This definition underscores the intentional and often strategic role of state institutions in shaping linguistic practices. Language forms the core of collective identity and frequently functions as a symbol of resistance against marginalization or assimilation. In situations where linguistic minorities navigate pressures from dominant language groups, language becomes a crucial resource for political and cultural mobilization.

A fundamental concept in sociolinguistics is that of *language ideology*, defined as a system of beliefs about the function, value, and social meaning of language. Language ideologies are not only about language. They forge links between language and other social phenomena, from identities (ethnic, gender, racial, national, local, age-graded, subcultural), through conceptions of personhood, proper human comportment, intelligence, aesthetics, and morality, to notions such as truth, universality, authenticity (Woolard & Schieffelin 1994, cited in Woolard 2021). Language ideologies play a decisive role in shaping both public discourse and formal language policy. They influence societal attitudes toward linguistic diversity and frame normative decisions regarding the status and protection of minority languages.

In the Central European region, characterized by centuries of multilayered imperial structures, shifting borders, and ethnolinguistic diversity, language ideologies have historically been intertwined with nation-building processes. Roter (2003) identifies a tendency toward linguistic essentialism, an ideological stance that equates language with the ontological core of national existence. Such essentialism is particularly visible in Slovenia, where language became a crucial component of political struggles within the Habsburg Empire.

Slovenia and Hungary offer a compelling comparative case: both share geographic proximity and historical entanglement dating back to the Austro-Hungarian Empire, yet they articulate different models of minority protection and linguistic governance. Slovenia employs an asymmetrical approach targeting autochthonous minorities, whereas Hungary applies a universalist framework that formally guarantees rights to all minorities.

3 LANGUAGE POLICY IN SLOVENIA: HISTORICAL FOUNDATIONS OF SLOVENIAN LINGUISTIC IDENTITY

Slovene is a South Slavic language with a codified literary and cultural tradition extending back to the Middle Ages. The earliest preserved Slovene texts, the *Freising Manuscripts* (*Brižinski spomeniki*), date to the late 10th or early 11th century and represent an important testimony to the early written tradition of the Slovene language. These manuscripts, written in the Latin script, testify to the deep historical roots of Slovene in the region.

The Reformation period marked a decisive stage in the formation of Slovene linguistic identity. The works of Primož Trubar in the 16th century played a foundational role in standardizing Slovene and establishing it as a language of religious and literary expression. Through Trubar and other Protestant intellectuals, Slovene gained symbolic significance as a vehicle of cultural and religious autonomy.

During the 19th century, linguistic awakening became intertwined with national emancipation movements. Within the Habsburg Empire, Slovenes constituted a linguistic and ethnic minority, often subjected to Germanization in Styria and Carniola and Italianization in the Littoral region. In this context, language emerged as a central pillar of national identity and a rallying point for political mobilization. The program of *Zedinjena Slovenija* (United

Slovenia), formulated during the revolutionary period of 1848, encapsulated the fusion of linguistic, cultural, and political aspirations.

Roter (2003) notes that in Slovenian cultural discourse, language is often conceptualized as the fundamental marker of national being—an "ontological sign of the existence of Slovenes as a nation." This essentialist interpretation reflects centuries of linguistic suppression, asymmetrical power relations, and sociopolitical marginalization. Slovene thereby became not only a medium of communication but also a symbol of national continuity and emancipatory struggle.

3.1 Legal and Normative Framework in Slovenia

The 1991 Constitution of the Republic of Slovenia establishes Slovene as the sole official language of the state (Article 11). However, in regions with autochthonous Italian and Hungarian communities, these minority languages enjoy equal official status (Articles 11 and 62). This arrangement is asymmetrical because only historically recognized minorities—Italian and Hungarian—receive collective linguistic rights embedded directly in the constitution.

The rights of these minorities include:

- bilingual education at all levels,
- the right to use the minority language in administrative and legal proceedings,
- cultural and media autonomy,
- guaranteed political representation, including minority delegates in parliament.

Roter (2003) highlights that, despite strong constitutional guarantees, Slovenia lacks a comprehensive language law. Instead, linguistic regulation is dispersed across multiple legal acts and sectoral policies. This fragmentation results in inconsistent implementation and variable protection of linguistic rights.

The Council of Europe (2019) reports persistent challenges, including geographic disparities in bilingual service provision and insufficient institutional capacity in minority regions. Furthermore, the Citizenship Act of 1994 requires applicants for Slovenian citizenship to demonstrate proficiency in Slovene, underscoring the role of language as a mechanism of state sovereignty and as a filter of social inclusion.

3.2 Minority Language Rights in Slovenia: Divergence Between Norm and Practice

Slovenia maintains a strict distinction between autochthonous and non-autochthonous minorities. The Italian and Hungarian minorities are constitutionally protected, while communities originating from former Yugoslav republics—such as Serbs, Croats, Bosniaks, and Macedonians—do not enjoy collective linguistic rights despite their significant demographic presence.

This differentiation reflects what Roter (2003) describes as *ethnically hierarchized inclusion*, where language is used as an instrument of selective integration. Autochthonous minorities benefit from large-scale constitutional protection and institutional support, while non-autochthonous groups rely primarily on individual language rights without collective recognition.

4 LANGUAGE POLICY IN HUNGARY: HISTORICAL CONTEXT AND LINGUISTIC IDENTITY

Hungarian (Magyar), an Ugric language unrelated to Indo-European languages, constitutes a core symbol of Hungarian national identity. Following the dissolution of Austria-Hungary in 1918 and the territorial losses stipulated by the Treaty of Trianon (1920), Hungarian national ideology increasingly emphasized linguistic unity and cultural homogenization. Language played a crucial role in reinforcing national cohesion during periods of political instability and demographic transformation.

After the fall of communism in 1989, Hungary adopted new legislative frameworks aimed at protecting minority rights and promoting linguistic diversity. This shift was influenced by democratization processes, international human rights standards, and the country's eventual accession to the European Union.

4.1 Legal Framework of Language Policy in Hungary

The 2011 Fundamental Law of Hungary designates Hungarian as the sole official language of the state. At the same time, it guarantees the rights of national minorities to use their mother tongue in education, public administration, media, and cultural institutions.

Act CLXXIX of 2011 on the Rights of Nationalities constitutes a comprehensive framework for collective linguistic rights. It includes:

- the right to establish minority self-governments,
- bilingual or multilingual public signage in minority-inhabited regions,
- access to mother-tongue education,
- cultural autonomy and media support.

Despite the formal universality of this framework, empirical studies reveal disparities in implementation. Key challenges include inconsistent funding, a shortage of qualified minority-language teachers, and limited institutional infrastructure in smaller minority communities.

The Slovene minority in the Porabje region (Raba) enjoys institutional support, including bilingual schooling, cultural centers, media outlets such as *Porabje* weekly, and non-voting representation in parliament. Bilateral treaties between Slovenia and Hungary, initiated in 1992, have strengthened cross-border cooperation and reinforced the minority's cultural presence. The establishment of the Hungarian Cultural Centre in Lendava in 2022 further symbolizes the institutional commitment to minority preservation.

5 COMPARATIVE ANALYSIS: SIMILARITIES AND DIFFERENCES, ASYMMETRY VS. UNIVERSALISM

Slovenia and Hungary differ markedly in their approaches to minority protection and language policy. Slovenia's model is asymmetrical, granting collective linguistic rights only to autochthonous minorities, while excluding more recent minority groups from similar protections. The application of rights is limited to specific regions where minorities constitute a significant portion of the population.

Hungary, by contrast, institutionalizes a formally universalist model that extends rights to all legally recognized minority groups. However, the practical realization of these rights is constrained by economic, demographic, and political factors. This leads to a discrepancy between normative intent and practical outcomes.

Marácz (2015) identifies Slovenia as an example of institutional inclusion rooted in regional autonomy, whereas Hungary exemplifies a universalist yet variably implemented system. The presence of minimum-threshold requirements in some Central European states—such as requiring 20% minority population in a municipality to enable bilingual administration—demonstrates how normative frameworks may reinforce or limit linguistic diversity.

In both countries, language serves as a foundational symbol of national identity and as a tool for political sovereignty. Nevertheless, Slovenia emphasizes linguistic homogeneity outside regions inhabited by autochthonous minorities, whereas Hungary adopts broader legal guarantees that do not always translate into effective practice.

5.1 Language as a National Symbol vs. a Tool of Inclusion

The sociolinguistic analysis reveals that both Slovenia and Hungary conceptualize language as an essential component of national identity. However, Slovenia's approach foregrounds the historical legitimacy of autochthonous minorities, resulting in a selective model of linguistic protection. Hungary's universalist framework appears more inclusive on paper but faces difficulties in practical implementation due to uneven funding, fluctuating political will, and administrative constraints.

The central challenge in both states lies in aligning formal language rights with actual sociolinguistic conditions. While Slovenia lacks a unified language act, Hungary struggles with ensuring consistent quality and access to minority-language services. Both countries must address the gap between normative provisions and lived linguistic practices.

6 CONCLUSION

According to Marácz (2015), Central Europe exhibits two opposing models of language policy toward Hungarian minorities: inclusive multicultural frameworks (as found in Slovenia, Serbia/Vojvodina, Austria, and Croatia) and exclusionary nationalist models (as seen in Slovakia, Romania, and Ukraine). Slovenia represents a case of institutional inclusion, where historically recognized minorities benefit from extensive linguistic and cultural rights anchored in regional legislation. Hungary, on the other hand, implements a universalist system whose effectiveness depends on economic resources, institutional capacity, and political priorities.

Sociolinguistic analysis demonstrates that language in both Slovenia and Hungary operates as a powerful identity-forming and political instrument. Slovenia emphasizes selective, historically anchored protection, whereas Hungary endeavors to universalize minority rights. The future of language policy in both countries depends on their ability to integrate linguistic rights into broader social and political strategies, ensuring both structural inclusivity and effective regional implementation.

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FROM LITURGY TO MYTH: MYTHOPOESIS AND THE CONSTRUCTION OF HUNGARIAN NATIONAL LITERATURE

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Abstract

This article examines the role of mythopoesis—the literary creation of culturally functional myths—in shaping Hungarian national identity and its literary canon. It explores how linguistic, historical, and ideological processes transform texts into symbolic carriers of collective memory. Special attention is given to the *Halotti beszéd*, which evolved from a medieval liturgical prayer into a modern national memory artifact. The study also analyzes how the standardization of the Hungarian language and the nineteenth-century canonization of authors such as Arany and Petőfi contributed to constructing a coherent national narrative. Through these examples, the article demonstrates that Hungarian literature does not merely reflect national identity but actively participates in its creation, functioning as a key site of cultural continuity, self-representation, and symbolic power.

Key words: *Hungarian literature, mythopoesis, national identity, language, canon*

1 INTRODUCTION

The concept of mythopoesis, derived from the Greek *mythos* (myth) and *poiein* (to create), denotes a process of cultural and literary mythmaking that generates ideologically charged narratives embedded in literature, historiography, and collective memory. In contemporary literary theory, the term has gained prominence as an analytical category used to describe the ways in which texts—whether fictional or historical—produce and stabilize cultural meanings that retroactively shape national self-perception and contribute to the construction of the *imagined community* (Anderson, 1983).

Mythopoesis thus represents a strategic act of symbolic production, through which literary representations of the nation—its origins, heroes, traumas, or collective values—become semantic centres of identity. As William G. Doty (2000) notes, mythopoesis encompasses "the narrative articulation of culturally functional myths that serve as frameworks for understanding social values, historical continuity, and shared experience." This process has not only aesthetic but fundamentally political and identity-forming functions, and is intimately connected to canon-building practices that determine what is deemed "authentic" or "proper" within a given national culture.

In the Hungarian context, mythopoesis assumes particular significance. Hungarian national identity developed from the nineteenth century onward against the backdrop of imperial tensions, linguistic and ethnic diversity, and later territorial fragmentation (Trianon, 1920). Literature emerged as a central myth-producing sphere in which key narratives of origin (Magyar continuity and the Hunnic myth), heroism (the Toldi myth), collective suffering (the Ottoman and Tatar narratives), and civilizational mission were articulated.

The aim of this article is to analyze the function and structure of mythopoetic strategies in Hungarian literary tradition, focusing on selected works that directly contributed to building national symbolism. The guiding premise is that Hungarian literature does not create myths as isolated textual entities but as discursive formations rooted in collective memory, historically grounded narratives, and linguistic ideologies.

2 LANGUAGE AS A FOUNDATION OF NATIONAL IDENTITY

The Hungarian language, one of the few Ugric languages in Europe, has played an exceptionally important role in shaping Hungarian cultural identity. Especially during the modernizing and nation-building movements of the nineteenth century, it was regarded not merely as a means of communication but as a primary bearer of national identity. This process is closely associated with the construction of national consciousness, which, as Szűcs argues, constitutes a form of mythopoesis—a deliberate creation of national narratives legitimizing collective identity and social structures (Szűcs, 2022).

During the Middle Ages and early modern period, Hungarian functioned under the dominance of Latin and later German, which resulted in linguistic conflicts that became integral to the broader mythopoetic construction of the nation. Language was not perceived merely as a communicative tool; it became a vehicle for myths of origin and continuity used to reinforce sovereignty and historical legitimacy (Szűcs, 2022). Sherwood (2017) highlights the ideological dimension of this development, noting that "language became the decisive marker of national belonging", with Hungarian repeatedly constructed as a "tool of the nation's survival".

The standardization of Hungarian in the eighteenth and nineteenth centuries constituted an act of ideological selection, privileging specific dialects and forms as representatives of the "true" national language (Szűcs, 2022). This process formed part of a broader mythopoetic phenomenon in which literary language and canon collectively shaped an imagined community while marginalizing regional identities and alternative linguistic norms. Sherwood emphasizes the influence of Herder's concept of *Volksgeist*, which framed language as the "spirit of the nation", thereby elevating Hungarian to the status of a foundational element of national identity (Sherwood, 2017).

Szűcs further argues that national mythopoesis involves not only the passive reception of historical narratives but their continuous active creation, with language serving as the primary medium through which such myths circulate and become embedded in collective memory. Standardized language thus functions as a mechanism of cultural reproduction and political legitimization. The well-known phrase *Nyelvében él a nemzet* ("A nation lives in its language") encapsulates the enduring ideological commitment to linguistic preservation even under adverse geopolitical conditions (Sherwood, 2017).

Language also operates as a space of exclusion, determining what is incorporated into or omitted from the national narrative. The ideological nature of linguistic standardization is therefore inseparable from mythopoetic nation-building, which uses language to shape historical memory and identity. Sherwood notes that the exclusion of non-standard variants and minority languages within the Kingdom of Hungary masked existing power asymmetries behind rhetoric of authenticity (Sherwood, 2017).

Through this interplay of language, canon, and identity, Hungarian culture developed a stable—though historically contingent—"national myth" that continues to shape perceptions of collective belonging (Szűcs, 2022; Sherwood, 2017).

3 *HALOTTI BESZÉD* AS THE FIRST VERNACULAR DOCUMENT IN HUNGARIAN LITERARY TRADITION

The origins of Hungarian literary culture reach back to the turn of the tenth and eleventh centuries, when the adoption of Christianity connected Hungary to the broader European cultural sphere. The earliest written works, comparable to contemporary European texts, were produced in Latin and included liturgical literature, sermons, prayers, legends (e.g., the Life of St. Svorad and Benedict), and historiographic works such as Anonymus's *Gesta Hungarorum*.

The earliest extant text written in Hungarian is the *Halotti beszéd és könyörgés* (Funeral Oration and Prayer) preserved in the Pray Codex. Composed between 1192 and 1195 in a Benedictine monastic environment, the text constitutes a loose adaptation of a Latin liturgical prayer. Although technically a translation, its author does not follow a strictly literal method but instead creates a stylistically coherent, linguistically autonomous work that laid the foundation for Hungarian written culture and, retrospectively, national literary identity (Ladányi, 2023).

As István Ladányi notes, the text performs a double function: it offers a homiletic explanation for the faithful and simultaneously serves as a prayer for the deceased. Its didactic and religious dimension is expressed through rhythmic, image-rich language close to medieval spoken Hungarian. The literary value of the *Halotti beszéd* lies not only in its age or linguistic primacy but also in the emotional and rhetorical force with which it articulates shared human experience. The opening words (“*Látjátuk feleim szümtükkel mik vogymuk…*”) form a pathetic rhetorical appeal, confronting listeners with human mortality. The biblical notion of humanity’s return to dust ("*pulvis es et in pulverem reverteris*") acquires a collective and emotive dimension: death becomes a universal condition.

The text is notable for its rhythmicity, alliteration, and parallelism, features later echoed in folk and medieval epic traditions. Over the centuries, it was repeatedly read, interpreted, and paraphrased, particularly in twentieth-century poetry (e.g., Sándor Reményik, Attila József), where its opening lines became universal expressions of human fate (Ladányi, 2023).

Beyond its literary significance, the *Halotti beszéd* acquired a crucial identity-forming role. In Hungarian cultural memory, it came to be regarded as the "first voice of the nation"—not the voice of kings or clerics but of the people. This perception, however, is a retroactive construction produced by nineteenth- and twentieth-century national romanticism and educational discourse. Canonization thus transformed a liturgical text into a memory artifact central to national identity (Ladányi, 2023).

During the nineteenth century, the text was reframed as the earliest "proof" of the Hungarian nation’s existence. In the twentieth and twenty-first centuries, it underwent further ideological reuses. Despite its religious origins, it became a secular mnemonic symbol, appearing on monuments, in state ceremonies, and even political rhetoric). *Halotti beszéd* now functions as evidence of "ancient national continuity", often detached from historical context in support of political narratives.

A text that once functioned as a religious speech has become part of a secular ritual of identity. It appears on monuments, in political rhetoric, and in public symbolism. What was once a historical source has been transformed into a memory artifact that co-defines the national canon. The *Halotti beszéd* thus exemplifies how a literary work undergoes the process of mythopoesis: a text becomes a myth, and a myth becomes identity. The canon is not merely a collection of works—it is a mode through which a culture speaks about itself.

Today, the *Halotti beszéd* is once again present in cultural discourse. This process may be understood precisely as “recontextualized sacrality”: a text once embedded in liturgical practice now functions as a cultural relic**,** creating continuity between medieval Christian meaning and the modern national myth.

As Bogusław Bakuła notes, in the Central European context texts such as the *Halotti beszéd* function as “memory artifacts”—not because they represent great artistic achievements, but because they generate a sense of continuity in national existence. In the Hungarian case, this represents a distinctly retrospective act of canonization: a text that was originally pragmatic and religious was reinterpreted in the nineteenth and twentieth centuries as the “beginning” of Hungarian literature. Through its incorporation into textbooks, anthologies, and literary histories, it became a key instrument in the narrative construction of national history.

It is equally important to consider what such canonization obscures. The text did not originate in a nation-state but in a multiethnic, Latin-speaking monastic environment. Its themes are not national but universal—death, repentance, prayer. And yet it has come to symbolize Hungarian linguistic distinctiveness and the “beginning” of the nation’s own culture. This paradox underscores the constructive nature of every literary canon**:** a canon is never objective, but always retrospectively shaped according to the needs of the present.

4 THE *TOLDI* MYTH AND THE FORMATION OF THE NINETEENTH-CENTURY NATIONAL PANTHEON

In nineteenth-century Hungary, a process emerged that can be described as the literary construction of national identity. In the absence of political sovereignty, literature assumed the role of articulating national language, memory, and continuity. Poets and writers became cultural leaders, and their works were understood as statements about the nation—its soul, its history, and its collective mission. The most prominent example of this development was Sándor Petőfi, who was regarded not only as a Romantic poet but also as a hero of the 1848 Revolution. His image became inseparable from the ideas of liberty and national sacrifice.

Similarly, authors such as János Arany and Mihály Vörösmarty also entered the national literary pantheon. Vörösmarty's poem *Szózat* (*The Appeal*) came to be regarded as a "second national anthem," fusing patriotic ethos with historical consciousness—*"Hazádnak rendületlenül légy híve, óh magyar!"* ("Be unwaveringly faithful to your homeland, O Hungarian!"). These lines became embedded in the cultural memory. As Bakuła points out, nineteenth-century canonization was not spontaneous; it was orchestrated by elites. Educational institutions, literary societies, and the press shaped the image of the "national poet." A new cultural authority emerged: the cultural saint (Bakuła 2011, 166). The poet ceased to be merely an author and became a myth. Though similar processes occurred in other Central European cultures, the Hungarian case was uniquely intense. Literary figures were commemorated with monuments, their works were memorized in schools, and their biographies were reshaped to conform to the model of the national hero. Yet this canonization was not unproblematic: many voices were excluded—women writers, ethnic minorities, and divergent ideological positions were pushed to the margins. The canon thus became a monocultural narrative, reinforcing the idea of a unified national identity.

Within the framework of Hungarian national mythopoesis, János Arany's *Toldi* (1846) represents a particularly significant text that unites folklore, Romantic poetics, and modern national ideology. The figure of Toldi—depicted as a superhuman strongman, righteous defender, and chosen "folk knight"—became a cultural emblem of Hungarian identity, especially during the era of national awakening. Through this epic, Arany not only revitalized folk legends but transformed them into a modern national myth, responding to the need to codify an image of the "ideal Hungarian" during a politically turbulent age. The character of Miklós Toldi draws on oral tradition and historical references (most notably *Chronica Hungarorum*), but Arany reconstructed him to fulfil the expectations of Romantic nationalism. Toldi is presented as a hero of the common people, a significant departure from aristocratic epic narratives such as the *Zrínyiász*. His physical strength and moral purity allow him to be read as an idealized collective image of the nation—strong, honorable, oppressed, yet ultimately recognized. Folkloric motifs—supernatural strength, combat with a wild beast, exile and return—are not used as mere narrative devices but as symbolic codes of collective experience, oscillating between periphery and center, exclusion and recognition (Doty, 2000). Formally, *Toldi* is written in hexameter, thereby drawing on classical epic structures and adapting them to a national context. Arany creates a hybrid between classical epic and modern national narrative, legitimizing the historical depth of Hungarian cultural space (Frye 1957). The linguistic construction of the epic has a dual purpose: aesthetic—through poetic refinement—and ideological—through the use of archaisms, idioms, and stylistic figures that evoke "authentic Hungarian-ness." Toldi's speech and actions become a semantic model of national character: directness, honor, justice, but also silence, anger, and physical response to injustice (Barthes 1972).

After the revolutionary period, *Toldi* became a textbook myth: incorporated into the canon of Hungarian literature, adapted in illustration, film, and theatre, and used in education as the normative example of the "national hero." In this sense, it is not merely a literary work but a multimodal mythopoetic matrix, continually reactivated according to the needs of each historical moment—during the Horthy era as a model of Christian masculinity, in socialism as a popular hero resisting feudal oppression. Toldi is thus not simply a narrative figure but a concentrated symbol of cultural self-representation, embodying the tension between individual justice and collective recognition, between peripheral identity and centrally affirmed value. In this sense, *Toldi* functions as a mythopoetic medium of national desire—for balance, strength, and a recognized historical place within Europe (Anderson, 1983).

5 CONCLUSION

The process of mythopoesis in Hungarian literature demonstrates that national identity is not a static entity but a dynamic narrative, shaped through linguistic, cultural, and literary strategies. Texts such as the *Halotti beszéd* do not function merely as historical documents; they operate as memory artifacts, repeatedly reinterpreted in accordance with shifting ideological and cultural contexts. Hungarian literature does not generate myths incidentally, but in response to the need for historical continuity and national cohesion—often in reaction to geopolitical traumas or cultural pressures.

At the same time, language emerges as a key medium not only for conveying cultural content but also as a symbolic tool of identity, legitimization, and exclusion. The codification and standardization of Hungarian were essential for producing a homogeneous vision of the nation, yet these processes simultaneously marginalized regional and multiethnic discourses.

Through the analysis of the *Halotti beszéd* and its modern reinterpretations, we see how a text—originally religious—acquires secular and ideological functions, becoming a "living myth" that serves the national narrative. Mythopoesis is therefore not merely a technique of the past, but an active cultural practice in the present, shaping how a nation narrates itself. In this process, literature does not simply mirror reality; it functions as a mechanism of memory, selection, and the (re)construction of identity.

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LESNÁ PÔDA AKO HRANICA A ŽIVOTNÝ PRIESTOR NA PRÍKLADE MALOKARPATSKÉHO HUNCOKÁRSKEHO OSÍDLENIA

FOREST LAND AS A BOUNDARY AND LIVING SPACE, USING THE EXAMPLE OF THE LITTLE CARPATHIAN HUNCOKAR SETTLEMENT

Pavol Krajčovič

Abstrakt

Človek a príroda predstavujú mimoriadne komplikovaný vzťah. Príroda tvorí časť životného prostredia človeka, čiže priestoru, ktorý vytvára prirodzené podmienky pre ľudskú existenciu. Prirodzené prírodné prostredie tvorí viac než len akési prázdne javisko, na ktorom sa odohrávajú dejinné príbehy, každodenný príbeh človeka, či skupiny ľudí. Kompaktnosť prírody a ľudí sa zároveň podieľa na kreovaní regionálnej identity. Cieľom predkladaného príspevku je zaradiť malokarpatské osídlenie nemecky hovoriacich drevorubačov – huncokárov do kontextu lesnej pôdy, ako hranice a životného priestoru.

Kľúčové slová: *lesná pôda, hranica, životný priestor, huncokári, Malé Karpaty*

Abstract

Human beings and nature represent an exceptionally complex relationship. Nature forms a part of the human living environment, that is, the space that creates natural conditions for human existence. The natural environment is more than merely an empty stage on which historical events, the everyday story of an individual, or of a group of people take place. The interconnectedness of nature and people also contributes to the creation of regional identity. The aim of the present paper is to place the Small Carpathian settlement of German-speaking woodcutters — the huncokars, into the context of forest land as a boundary and a living space.

Key words: *forest land, boundary, living space, huncokars, Little Carpathians*

1 ÚVOD

Územie súčasného Slovenska bolo od dávnych čias miestom stretu viacerých kultúr a etník, čo sa odrazilo v jeho multietnickom charaktere. K nim patrili aj nemecky hovoriace osoby, profesijne zamerané na prácu v lesnom hospodárstve. Majoritná, prevažne slovenská populácia malokarpatských podhorských obcí, ich nazývala huncokári. Toto etnonymické, či skôr exoetnonymické pomenovanie, ktoré sa používa aj v súčasnej tuzemskej etnologickej a historickej spisbe, vzniklo skomoleninou nemeckého názvu ich najčastejšej profesie – holzhacker a holzfäller (drevorubač) (Botík 2007, 92; Habáňová 1991, 81-89; Fiľo – Pöss 2017, 3-4; Slobodová Nováková 2014, 97-108). Samotní členovia huncokárskej komunity považovali pomenovanie huncokár za hanlivé. Sami seba nazývali spravidla horskými (Gebirgeleute) či lesnými ľuďmi (Waldleute) (Chrastina 2023, 99; Kantek 2008, 33-35; Krajčovič 2024, 5).

Počiatky príchodu huncokárov z rozličných nemecky hovoriacich krajín, či oblastí spadajú do obdobia prvej polovice 18. storočia, kedy sa primárne usádzali na horskom milieu malokarpatského pohoria. Ich príchod sa najčastejšie dáva do súvislosti s kolonizačnými aktivitami šľachtického rodu Pálfiovcov. Zásluhou nedávneho akademického výskumu je jazyk, ktorým sa dorozumievali, priraďovaný k stredobavorskému nárečiu (mittelbayrisch) (Fedič 2014, 109-119).

Po vzniku medzivojnového Československa (1918 – 1938) začalo dochádzať k narúšaniu tradičného spôsobu huncokárskeho života. Deti museli dochádzať do slovenských škôl v spádových obciach a postupne bol modifikovaný aj systém lesných prác (Horváthová 2002, 29). Dejiny huncokárov a spolu s nimi tiež všetkých Nemcov na Slovensku, výrazne ovplyvnili udalosti tesne pred a po skončení druhej svetovej vojny. Značná časť z nich musela nedobrovoľne opustiť svoje domovy a usadiť sa v Nemecku, alebo Rakúsku. Tí, ktorí ostali aj naďalej žiť na Slovensku, boli nútení prispôsobiť sa novým celospoločenským pomerom (Krajčovič 2021, 7-8; Petranský 2019, 488-507).

Cieľom predkladaného príspevku je zaradiť malokarpatské osídlenie nemecky hovoriacich drevorubačov – huncokárov do kontextu lesnej pôdy, ako hranice a životného priestoru. V geografickom a sociálnom zmysle bol životný priestor huncokárov vymedzený samotnými príslušníkmi tejto etnografickej skupiny do oblasti malokarpatského pohoria. Teoretické koncepty môjho príspevku vychádzajú predovšetkým z pojmov, akými sú krajina, pôda, hranica či životný priestor.

2 KONTEXTY HUNCOKÁRSKEHO OSÍDLENIA

Prvotnou a konečnou výslednicou prírodnej tvorby je les. Pôda, kým ju človek nezačal poľnohospodársky exploatovať, bola od prvopočiatku obrastená etážou (stromová, kerová, bylinná a iné). Ten les, keď sa jedná o absolútnu lesnú pôdu, ostal a ostáva na nej bez zmeny aj naďalej. V konečnom dôsledku sa les opäť zmocní každej pôdy, keď ju človek ponechá napospas prírode. Zo všetkých hospodárskych odvetví založených na vegetačnej tvorbe prírody, je časovo neobmedzené práve lesné hospodárstvo. Les do rámcov svojho trvania zahŕňa obdobie minulosti, prítomnosti a budúcnosti. Je jediným svedkom hospodárskeho vývoja a dejín daného kraja, čím je legitímne ho označiť za integrál dejín vekov (Kavuljak 1942, 10-11).

Krajinu je prirodzené definovať rôznorodo a nazerať na ňu často takmer z protichodných uhlov pohľadu. Väčšina prác zameraných na danú tematiku sa z epistemologického hľadiska nachádza na pomedzí antropológie, archeológie, geografie, historiografie, sociológie a ďalších, kde postupom času vzniká osobitný súbor štúdia krajiny, v ktorom sa prelínajú prístupy rôznych disciplín, ktorých prelínanie následne tieto disciplíny ovplyvňuje. Pre antropológiu nepredstavuje primárnu tému samotná krajina, ale explicitne vzťah medzi krajinou a človekom (Gibas – Pauknerová 2015, 7-18). Pre antropológov (a nielen pre nich) je do značnej miery, avšak nie výlučne, epicentrom krajiny človek. Od neho totiž krajina smeruje do všetkých strán, kam oko dohliadne a noha došliapne. Ľudské pokolenie zakúša priestor, mení ho a dáva mu významy. Priestor na človeka bezpochyby pôsobí a spätne ho ovplyvňuje. Zo vzájomného pôsobenia človeka a priestoru sa rodí krajina (ibidem, 7-18).

Krajina presahuje svoje elementy, a tým pádom prevyšuje tiež ľudské bytosti. Má vlastnú dynamiku, ktorá sa prejavuje geologickými procesmi, ktorých trvanie a cykly prekračujú život jednej, či viacerých ľudských generácií. Dynamika krajiny sa však prejavuje tiež ako schopnosť postupu krajiny voči ľuďom. Vzbudzuje v nich emócie, nabáda ich nadväzovať väzby a konať. Krajina môže byť rovnako tak vnímaná ako celok (či dokonca organizmus), ktorého súčasťou je človek, voči ktorému má svoje vlastné počínanie (ibidem, 7-18). Na jednej strane ľudia krajinu pretvárajú: stavajú v nej cesty, pestujú plodiny, pasú dobytok či ťažia suroviny. Avšak zároveň krajina funguje ako určitý samoregulačný systém, ktorý má vlastnú kybernetiku a smeruje k rovnovážnemu stavu. Človek tak v krajine zakúša obojstranný pohyb – svoje vlastné pôsobenie a pôsobenie krajiny na jeho existenciu (Sádlo 1994, 47-54).

Hranica predstavuje zaujímavý fenomén, ktorý púta predovšetkým pozornosť geografov. Ich najväčší interes sa sústreďuje na štátne hranice a ich vplyv na rozvoj okolitých regiónov. Špecifickým typom hranice, ktorá sa v ideálnom prípade zhoduje s hranicou štátnou, je etnická hranica. Etnická hranica sa však od štátnej, odlišuje svojím tvarom a typológiou. Len v istých situáciách má totiž etnická hranica líniový charakter. Väčšinou predstavuje väčšie, či menšie pásmo, resp. zónu. Ďalšou dôležitou vlastnosťou etnickej hranice je, že v skutočnosti ako taká neexistuje (Majo – Kusendová 2007, 251-263). V sociálnom priestore však predstavuje model pre sociálnu interakciu, upevňuje sebaidentifikáciu členov skupiny (v tomto prípade etnografickej skupiny huncokárov) a potvrdzuje rozdiely medzi tými, ktorí do nej nepatria. V geografii, prípadne historickej-geografii je však možné etnickú hranicu, z aspektu chápania etnickej, resp. skupinovej identity aspoň naznačiť. To znamená vizualizovať priestor, v ktorom sa stretávajú dve susediace etniká (napr. Slováci a huncokári – Nemci) (ibidem, 251-263).
Jedným z hlavných predstaviteľov teórie etnickej hranice je nórsky antropológ Fredrik Barth (Barth 1969). Podľa jeho názoru je etnická hranica kognitívnym a mentálnym medzníkom v mysliach jedincov. Etnická hranica tak predstavuje sociálny konštrukt, nie je objektívnym faktom, ale podlieha viacerým individuálnym chápaniam a interpretáciám. Jedným zo základných cieľov jej existencie je udržiavanie poriadku v zmysle sociálnej navigácie v sociálnom priestore. Je to paralela s mapou ako pomôckou na orientáciou vo fyzickom priestore (ibidem, 37-38).
S etnickou hranicou úzko súvisí termín životný priestor, ktorý je v spoločenských vedách chápaný najmä z pohľadu geopolitiky. Britský historik Simon Schama však tento pojem poňal z historicko-geografického aspektu. Konkrétne tvrdí, že ľudia konfrontovaní s primitívnym lesom sa príliš neuchyľujú k tzv. slovníku architektúry (Schama 1995, 58-59). Tým mal Schama na mysli to, že človek, ktorý v lese nežije, ho nepovažuje za možný príbytok. Nebolo pre neho totiž možné vizualizovať, alebo verbalizovať prírodu a prírodné prostredie v zmysle kultúrnej asociácie. Napriek tomu je však nutné považovať územie zalesnenej krajiny za životný priestor niektorých ľudských skupín (Krajčovič 2021, 34-44). So Schamovým názorom korelujú tiež znaky etnických a etnografických skupín. Sú to: kompaktné teritórium (ktoré obývajú), vlastný etnonym, resp. exoetnonym, osobitná skupina dialektov, odlišná kultúra a endogamia (Boukal 2018, 35).
Životný priestor huncokárskej populácie bol z geografického i sociálneho aspektu vymedzený jej vlastnými príslušníkmi, po oboch stranách malokarpatského pohoria (Krajčovič 2021, 98). Krátko po svojom príchode do novej vlasti, žili huncokári rozptýlene po horskom prostredí Malých Karpát, obklopení početnou prevahou najmä slovenského roľníckeho a vinohradníckeho obyvateľstva okolitých podhorských obcí a mestečiek. Len zriedkavo zakladali kompaktné osady, pozostávajúce z niekoľkých domov. Najčastejšie obývali lesné samoty. V jednotlivých nájomných domoch spolu žili dve až tri rodiny (Slobodová Nováková 2018, 77-88). V priebehu 18. a 19. storočia boli na malokarpatskom teritóriu vybudované desiatky huncokárskych usadlostí (Krajčovič 2024, 122-175).
To, že životným priestorom huncokárskeho obyvateľstva bola lesná pôda potvrdzujú popri inom tiež niektoré stereotypné predstavy miestnej majoritnej populácie: *„Huncokari su divoki jak zvjer“* alebo *„Huncokari vjedzá aj s jeleni vypravjat“* (Botík 2007, 92; Habáňová 1992, 66-85). Ako upozorňuje slovenská etnologička Martina Bocánová, časť majoritného obyvateľstva, ktorá s huncokármi neprichádzala do priameho kontaktu, bola presvedčená o ich divokosti a nevychovanosti. Hory, ktoré boli pre nich symbolom nebezpečenstva, preniesli túto charakteristiku aj na ľudí (huncokárov) (Bocánová 2019, 119-131). Objektom negatívnych predsudkov ostali členovia huncokárskej komunity aj po roku 1945, kedy časť z nich už opustila územie Slovenska. Modranský pedagóg a etnograf Alexander Jaromír Kraic vo svojich poznámkach z obdobia 60. rokov 20. storočia uviedol nasledovné: *„Na Písku*

bývali dávnejšie dosť nekultúrni drevorubači – hulcokári – Nemci ... žijúci v drevených búdach s malými okienkami" (Kraic 1982, 7). Z týchto imaginácií ľudí z dola (tuzemská populácia) o huncokárskej komunite vyplýva, že ju považovali za úzko spätú s lesným prostredím a všetkým tým, čo ju obklopovalo (zvieratá) (Krajčovič 2024, 103).

3 ZÁVER

Slovenskí Nemci vytvorili v minulosti v priebehu jednotlivých dekád a storočí niekoľko osobitných diaspór, ktoré sa od seba navzájom odlišovali z profesijného, konfesionálneho i nárečového aspektu. Súčasťou nemeckej minority boli tiež členovia etnografickej skupiny, úzko zameranej na prácu v lesnom hospodárstve – huncokári, obývajúci svojho času horské oblasti Malých Karpát. Z analýzy každodenného života skúmanej skupiny obyvateľstva vypláva, že lesná pôda bola nielen ich životným priestorom a etnickou hranicou, ale tiež výrazným spôsobom vplývala na ich špecificku identitu.

Príspevok vznikol v rámci riešenia projektu Pôda v zrkadle vedy: prezentácia interdisciplinárnych výsledkov pre rozširovanie povedomia, financovaného EÚ NextGenerationEU prostredníctvom Plánu obnovy a odolnosti SR v rámci projektu č. 09I01-03-V04-00003.

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KLIMATICKÁ POLITIKA AKO MODERNÁ GNÓZA: MEDZI DUALIZMOM ELÍT A POPULISTICKOU REAKCIOU

CLIMATE POLICY AS MODERN GNOSIS: BETWEEN ELITE DUALISM AND POPULIST REACTION

Oksana Kuberka

Abstrakt

Cieľom príspevku je identifikovať gnostické prvky v súčasnej klimatickej politike a ukázať, ako tieto rámce formujú politický diskurz, technokratické rozhodovanie a populistickú reakciu. Na základe konceptuálnej a diskurzívnej analýzy, doplnenej o sekundárne dáta (Eurobarometer, OECD, EPRS), príspevok identifikuje, že klimatická politika v európskom kontexte reprodukuje vzorce gnózy, dualizmu a elitárstva, ktoré posilňujú polarizáciu a vytvárajú priestor pre populistickú kritiku. Záver zdôrazňuje potrebu deliberatívnych mechanizmov na obnovu dôvery a demokratickej legitimity klimatickej politiky.

Kľúčové slová: *klimatická politika, gnosticizmus, dualizmus, populizmus, technokracia*

Abstract

This paper aims to identify gnostic elements in contemporary climate policy and to examine how these frameworks shape political discourse, technocratic decision-making, and populist reactions. Based on conceptual and discourse analysis supported by secondary data (Eurobarometer, OECD, EPRS), the paper finds that climate policy in the European context reproduces patterns of gnosis, dualism, and elitism, thereby intensifying social polarization and creating space for populist criticism. The conclusion emphasizes the need for deliberative mechanisms to restore trust and strengthen the democratic legitimacy of climate policy

Key words: *climate policy, gnosticism, dualism, populism, technocracy*

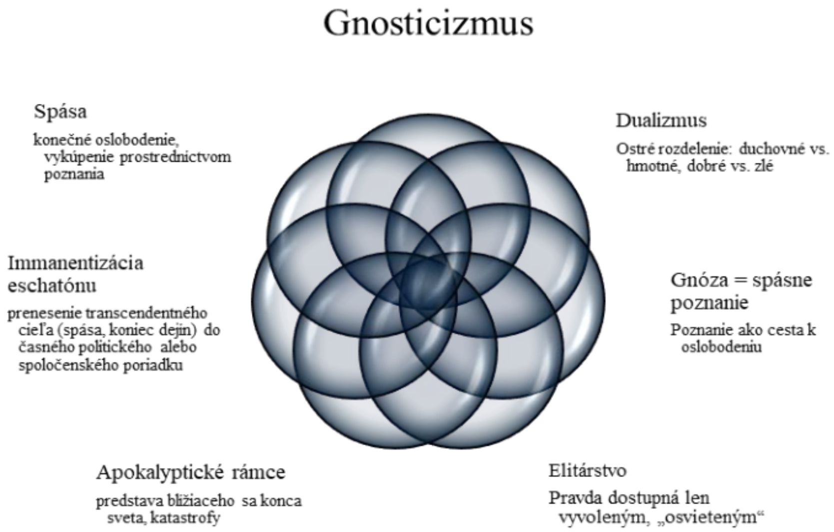
1. Úvod

Klimatická politika patrí medzi najväčšie výzvy 21. storočia a jej diskurz presahuje technické riešenia, keďže zahŕňa aj symbolické a ideologické rámce formujúce spoločenské vnímanie klimatickej hrozby. Podľa Eurobarometra 85 % Európanov považuje klimatickú zmenu za vážny problém, no zároveň pretrváva nízka dôvera voči inštitúciám -len 39 % občanov dôveruje vláde pri riešení komplexných otázok (OECD, 2024). Súčasne rastie polarizácia klimatického diskurzu v politike aj online prostredí (Brüggemann & Meyer, 2023; Tyagi, Uyheng & Carley, 2021).
Tieto zistenia ukazujú, že klimatická politika je aj ideologickou otázkou, kde sa stretáva vedecká autorita, politická moc a verejná dôvera. Tento príspevok preto analyzuje klimatickú politiku prostredníctvom gnostických prvkov -gnózy, dualizmu, elitárstva, apokalyptických obrazov a immanentizácie eschatónu a ukazuje, ako tieto rámce prispievajú k polarizácii a populistickým reakciám.

2. Teoretické východiská: Gnosticizmus

Gnosticizmus možno charakterizovať piatimi prvkami relevantnými aj pre analýzu súčasnej klimatickej politiky. Základom je gnóza, teda presvedčenie, že správne poznanie vedie k spáse (Jonas, 2001), a dualizmus, ktorý rozdeľuje svet na dobro a zlo (Filoramo, 1990). Typickým znakom je aj elitárstvo, podľa ktorého má k spásnemu poznaniu prístup len úzka skupina „zasvätených" (Pagels, 1979), často sprevádzané apokalyptickými predstavami blížiaceho sa kolapsu (Collins, 1998). Dôležitým prvkom je napokon immanentizácia eschatónu, teda snaha uskutočniť víziu spásy prostredníctvom politických projektov v pozemskom svete (Voegelin, 1952/2000). V modernej politike sa tieto prvky objavujú v sekularizovanej podobe, čo je výrazné najmä v klimatickom diskurze.

Obrázok 1: Vrstvenie gnostického myslenia a jeho ideologické prejavy v modernom politickom diskurze

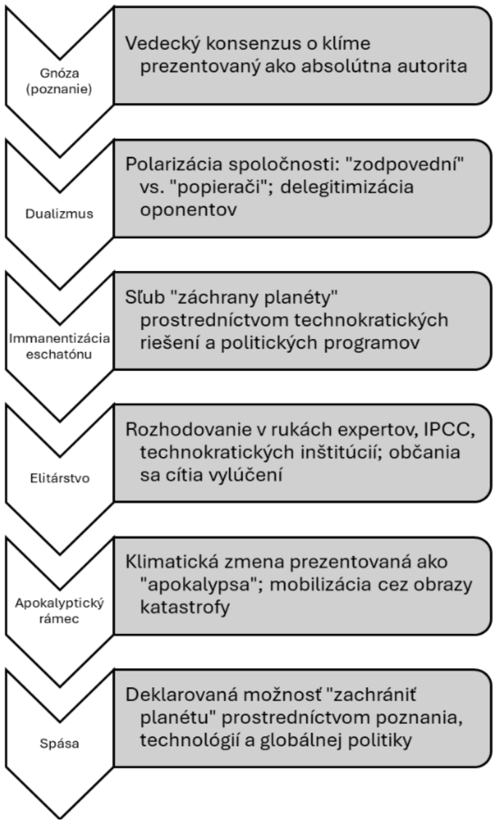


Zdroj: vlastné spracovanie na základe Jonas (2001), Voegelin (1952/2000), Pagels (1979), Collins (1998), Gray (2007), Layton (1987)

3. Gnostické prvky v klimatickej politike

Vizuálna schéma znázorňuje, ako sa tradičné gnostické kategórie premietajú do súčasného diskurzu klimatickej politiky, ktorá je často interpretovaná ako morálna povinnosť. Gnóza sa prejavuje v dôraze na vedecký konsenzus ako autoritu, dualizmus v delení spoločnosti na „veriacich vo vedu" a „popieračov" a elitárstvo v koncentrácii rozhodovania u expertov. Apokalyptické naratívy pracujú s predstavou „poslednej šance zachrániť planétu", čím tieto rámce zjednodušujú realitu a prispievajú k polarizácii.

Schéma 1: Vzťah medzi tradičnými gnostickými kategóriami a rámcami klimatického diskurzu



Zdroj: vlastné spracovanie na základe Jonas (2001), Voegelin (1952/2000), Dryzek (2013), Oreskes & Conway (2014), Hulme (2009), Huber - Greussing - Eberl (2022)

4. Politické vyjadrenia ako nositelia gnostických rámcov

Politická rétorika výrazne prispieva k šíreniu gnostických rámcov v klimatickej politike prostredníctvom apokalyptických varovaní, spásnych riešení a morálneho dualizmu medzi „veriacimi vo vedu“ a „popieračmi“, ako aj eschatologických sľubov spojených s iniciatívami typu Agenda 2030 či Green Deal.

Tieto rámce posilňujú aj konkrétne politické vyjadrenia: AfD hovorí o „ideologickom diktáte Bruselu“, PiS interpretuje klimatické opatrenia ako útok na baníkov, RN ich označuje za „trest pre občanov“ a Meloni ich spája so stratou suverenity; podobný diskurz sa objavuje aj v USA.

Apokalyptický jazyk je prítomný aj v médiách (Foust & Murphy, 2009), v sporoch na úrovni EÚ (Politico, 2025) a v komunikácii niektorých občianskych organizácií. Výsledkom je posilňovanie schémy boja dobra proti zlu, ktorá prehlbuje polarizáciu a vytvára priestor pre populistické reakcie.

5. Metodologický rámec

Výskum kombinuje konceptuálnu analýzu gnosticizmu, diskurzívnu analýzu politických vyjadrení a sekundárne dáta (Eurobarometer, OECD, EPRS) s cieľom prepojiť teoretické kategórie s empirickými prejavmi klimatickej politiky. Kľúčové pojmy boli aplikované na klimatický diskurz ako priestor stretu vedeckej autority a politickej moci, pričom regionálne rozdiely v dôvere boli analyzované pomocou sekundárnych dát spracovaných v MS Excel, Google Sheets a Pythone.

5.1 Výskumné otázky

1. Ako sa gnostické prvky prejavujú v klimatickej politike?
2. Ako technokratický jazyk formuje elitárske rámce?

3. Ako tieto rámce ovplyvňujú dôveru a podporujú populistickú reakciu?
4. Môžu deliberatívne mechanizmy znižovať polarizáciu?

5.2 Hypotézy

H1: Klimatická politika obsahuje gnostické prvky.
H2: Vedecký konsenzus posilňuje elitárstvo.
H3: Apokalyptické rámce podporujú populizmus.
H4: Deliberácia môže zvyšovať dôveru.

6. Analytické zistenia

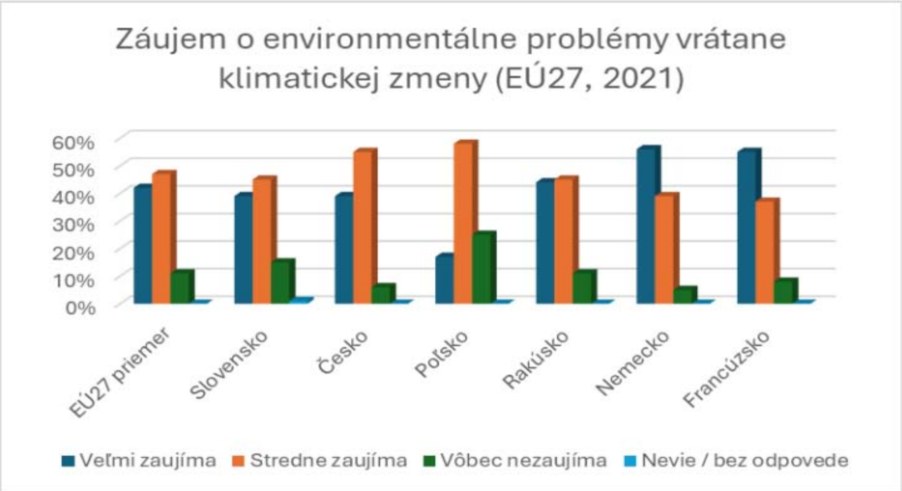
6.1 Epistemologický aspekt

V politických debatách sa vedecký konsenzus o klimatickej zmene často prezentuje ako neotrasiteľná autorita, čím sa poznanie mení na formu „gnózy" legitimizujúcu technokratické riešenia. Tento prístup zužuje klimatickú politiku na technickú otázku a oslabuje priestor pre demokratickú deliberáciu.

Ako upozorňuje Jasanoff (2005), prijímanie vedeckého poznania sa líši podľa občianskych epistemológií, čo vysvetľuje rozdielne reakcie na konsenzus IPCC v jednotlivých krajinách (Hochsprung, Taddei & Monteiro, 2022). Tlak na jednotný konsenzus môže zároveň obmedzovať pluralitu prístupov a vytláčať alternatívne perspektívy (Boasson & Tatham, 2023).

Regionálne rozdiely v záujme o klimatickú zmenu (Graf 1) podporujú elitárske rámce, v ktorých sa poznanie sústreďuje v rukách expertov a verejnosť zostáva pasívna. Táto asymetria odráža logiku moderného gnostického myslenia a oslabuje demokratickú legitimitu klimatickej politiky, čím vytvára priestor pre populistické naratívy.

Graf 1. Záujem o environmentálne problémy vrátane klimatickej zmeny (EÚ 27, 2021)

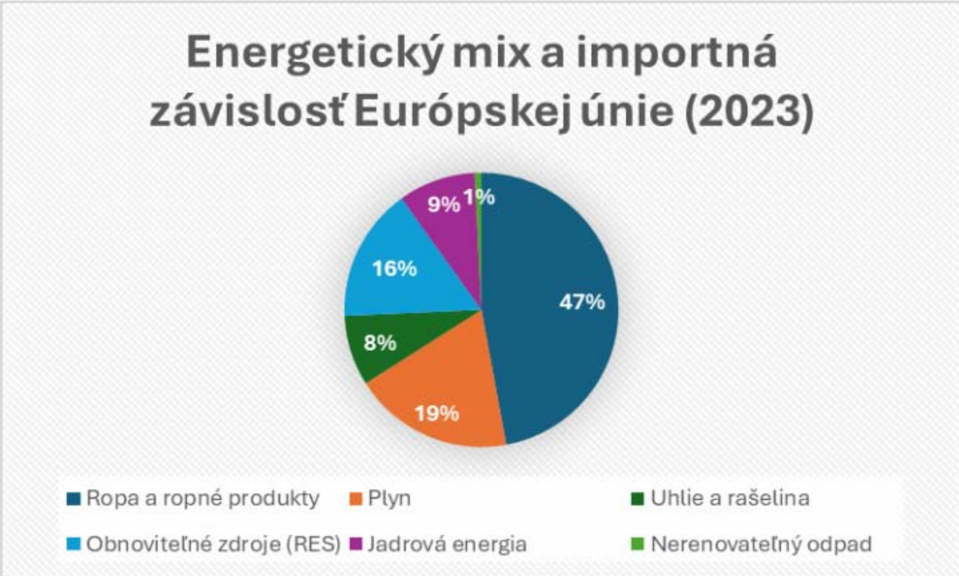


Zdroj: European Commission (2021). Special Eurobarometer 516 – European citizens' knowledge and attitudes towards science and technology, p. 14 (QA2.6).

6.2 Dualizmus v energetickej politike

Klimatická politika je často rámcovaná ostrým morálnym dualizmom, v ktorom sú fosílne palivá prezentované ako „temná strana" a obnoviteľné zdroje ako „spása planéty". Tento kontrast má gnostický charakter a rozdeľuje spoločnosť na „osvietených" podporujúcich transformáciu a „popieračov" spájaných s fosílnou energetikou.

Empirické dáta však ukazujú nesúlad medzi ideologickým rámcom a realitou energetického mixu EÚ. V roku 2023 tvorili fosílne palivá dominantnú časť spotreby, zatiaľ čo podiel obnoviteľných zdrojov zostával výrazne nižší (Eurostat, 2024). Tento rozpor ilustruje Graf 2 a poukazuje na pretrvávajúce napätie medzi politickým diskurzom a štruktúrou energetického systému.



Zdroj: EPRS Briefing – The EU's climate action strategy (2025), European Parliamentary Research Service. Údaje: Európska komisia, k 1. aprílu 2025.

Ako varuje Voegelin (1952/2000), moderný dualizmus nesie gnostické črty, keď technológia a poznanie vystupujú ako jediná cesta k spáse a odporcovia sú morálne delegitimizovaní. Batista (2025) dopĺňa, že legislatívne nástroje, ako uhlíková daň či systém EU ETS, tento rámec posilňujú a prehlbujú dichotómiu medzi „čistými“ a „nečistými“ zdrojmi energize.

6.3 Elitárstvo a technokratické nástroje

Klimatické rozhodovanie sa čoraz viac presúva do rúk expertov a nadnárodných inštitúcií, čo vytvára elitársky rámec. Gruber (2024) varuje, že klimatická komunikácia v Európe pôsobí vzdialene, čím oslabuje dôveru občanov. Batista (2025) dopĺňa, že vedecké poznanie je prezentované ako „spásny nástroj“, čo vytvára gnostickú hierarchiu: experti ako „osvietení“, verejnosť ako „nezasvätení“.

Technokratické nástroje, ako **EU ETS** a **CBAM**, sú prezentované ako univerzálne riešenia klimatickej krízy, no ich komplexnosť posilňuje pocit vylúčenia verejnosti a obraz „nových archónov“, ktorí rozhodujú bez priamej demokratickej legitimity (European Commission, 2023; European Commission, 2025; Dannemann, 2024).

6.4 Populistická reakcia

Populistické hnutia odmietajú klimatickú politiku ako elitársky projekt vnucovaný „zhora“. Hoci 85 % Európanov podporuje klimatický výskum, až 49 % sa obáva jeho politického zneužitia, čo posilňuje naratív „elity verzus ľud“ (Eurobarometer, 2021; Dannemann, 2024).

V Európe populisti rámcujú klimatické opatrenia ako hrozbu pre bežných občanov alebo národnú suverenitu, pričom podobný diskurz je prítomný aj v USA. Spoločným znakom týchto naratívov je mobilizácia voličov prostredníctvom obrany „obyčajného ľudu“ proti technokratickým elitám.

Rozdiel medzi vysokou podporou vedeckého poznania a nízkou dôverou v národné vlády, najmä v strednej Európe (Eurobarometer 513, 2021), vytvára priestor pre environmentálny populizmus. Ten využíva gnostické rámce spásy prostredníctvom poznania na jednej strane a odporu voči elitám na strane druhej, čím prehlbuje spoločenskú polarizáciu (Caiani & Lubarda, 2024; Böhmelt, Koubi & Bernauer, 2023).

7. Empirické ukazovatele klimatickej krízy

Najnovšie globálne dáta (Ripple et al., 2025) potvrdzujú bezprecedentnú závažnosť klimatickej zmeny. Rok 2024 bol najteplejší v histórii meraní, koncentrácia CO_2 presiahla 430 ppm a emisie dosiahli rekordných 40,8 Gt CO_2e. Súčasne pretrváva dominancia fosílnych palív, masívna strata lesov, úbytok ľadovcov a rozsiahle bielenie koralov.

Tieto ukazovatele podčiarkujú vysokú vedeckú naliehavosť klimatickej krízy, no zároveň vysvetľujú, prečo sa klimatická politika často spája s apokalyptickými rámcami. Extrémne dáta podporujú naratívy o blížiacej sa globálnej katastrofe, čo vedie k moralizácii diskurzu a polarizácii spoločnosti. Práve tento paradox medzi vedeckou urgentnosťou a apokalyptickou interpretáciou vytvára priestor pre populistické odmietanie klimatických politík a je jadrom chápania klimatickej politiky ako modernej gnózy.

8. Diskusia a záver

Analýza ukazuje, že klimatická politika je výrazne formovaná gnostickými rámcami: poznanie sa prezentuje ako spása, diskurz sa polarizuje do dualizmu „osvietení verzus popierači" a riadenie nadobúda elitársky technokratický charakter. Ako upozorňuje Batista (2025), ide o sekularizované teologické vzorce, čo potvrdzujú aj moje zistenia – vedecký konsenzus je často komunikovaný ako jediná legitímna cesta k „záchrane planéty", čím sa delegitimizujú oponenti a posilňuje morálne napätie v spoločnosti.

Výskumy Huber, Greussing a Eberl (2022) naznačujú, že jadrom klimatického skepticizmu nie je nedostatok informácií, ale kríza dôvery voči vedeckým a politickým inštitúciám. Tento záver podporujú aj moje výsledky: nedôvera prehlbuje rozdelenie medzi „elitami" a verejnosťou a vytvára priestor pre populistické naratívy, ktoré neodmietajú len vedu, ale volajú po demokratizácii poznania (Fu, 2025; Dannemann, 2024).

Alternatívne prístupy - post-politika, environmentálna spravodlivosť a deliberatívna demokracia (Kenis & Mathijs; Schlosberg; Habermas; Dryzek) ukazujú, že klimatická politika nie je iba technokratickým projektom, ale diskurzívnym priestorom stretu expertnej autority, ideológie a otázok spravodlivosti. Príklady občianskych klimatických zhromaždení vo Francúzsku, Spojenom kráľovstve či Írsku naznačujú, že participácia môže zmierňovať polarizáciu a obnovovať dôveru.

Empirické dáta (Eurostat 2024; Eurobarometer 2021) potvrdzujú, že problémom nie je nedostatok informácií, ale nerovnomerné prijímanie poznania a nízka dôvera v inštitúcie. To posilňuje rámec „boja dobra proti zlu" a podporuje populistickú protireakciu, viditeľnú v rétorike AfD, PiS, RN či Donalda Trumpa.

Výsledky potvrdzujú všetky štyri hypotézy: klimatický diskurz obsahuje gnostické prvky (H1), vedecký konsenzus posilňuje elitárstvo (H2), tieto rámce podporujú populistickú reakciu (H3) a deliberatívne mechanizmy môžu polarizáciu zmierňovať (H4). Riešením je prepojenie vedeckého poznania s deliberatívnou demokraciou a posilnenie lokálnej participácie. Ako pripomínajú Latour (2017) a Weintrobe (2021), nestačí „vedieť viac" - je potrebné meniť aj spôsob, akým sa rozhoduje a koná. Rehumanizácia poznania tak môže prispieť k inkluzívnejšej a legitímnejšej klimatickej politike

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AI AVATAR VO VIDEU: OD VIRTUÁLNEHO MODERÁTORA K LEKTOROVI A PREDAJCOVI?

AI AVATARS FOR VIDEO USE: FROM JOURNALIST TO LECTOR AND SALESMAN?

Jakub Prokeš, Ján Višňovský

Abstrakt

Generovanie obsahu nástrojmi umelej inteligencie (AI), či už ide o text, audio alebo video, v súčasnosti ponúka širokú škálu možností. Špecifickou oblasťou je generovanie avatarov, virtuálnych moderátorov s ľudským výzorom, ktorí sú schopní viac či menej presvedčivo a dôveryhodne prezentovať akýkoľvek obsah. Technológia nachádza uplatnenie najmä v médiách, ale začína byť zaujímavá aj pre nemediálne spoločnosti. S rastúcou popularitou sociálnych sietí totiž zaznamenávame stúpajúci trend konzumovania akéhokoľvek obsahu najmä prostredníctvom videa. Video sa stalo štandardným nástrojom na prezentáciu výrobkov a služieb, rovnako na komunikovanie s klientami, ale aj zamestnancami a spolupracovníkmi. Avatary ponúkajú inováciu a nové príležitosti. Cieľom štúdie je zmapovať využitie tohto fenoménu v médiách, načrtnúť možnosti, limity a perspektívy smerovania.

Kľúčové slová: *avatar, inovácie, komunikácia, médiá, obsah, umelá inteligencia (AI)*

Abstract

The generation of content using artificial intelligence (AI) tools, whether text, audio, or video, currently offers a wide range of possibilities. One specific area is the generation of avatars, virtual presenters with human appearances who are able to present any content in a more or less convincing and credible manner. The technology is mainly used in the media, but it is also becoming interesting for non-media companies. With the growing popularity of social networks, we are seeing an upward trend in the consumption of all kinds of content, especially through video. Video is becoming a standard tool for presenting products and services, as well as for communicating with clients, employees, and colleagues. Avatars offer innovation and new opportunities. The aim of the study is to map the use of this phenomenon in the media, outline the possibilities, limitations, and future prospects.

Key words: *avatar, innovation, communication, media, content, artificial intelligence (AI)*

1 ÚVOD

Umelá inteligencia (AI, *z angl. Artificial Intelligence*) je označenie technológie či zariadenia prejavujúceho schopnosti podobné človeku, ktorými sú uvažovanie, učenie, plánovanie a tvorivosť. Podľa Európskeho parlamentu (2023) sa AI môže stať hlavnou technológiou budúcnosti, a preto ju Európska únia označila za kľúčovú pre digitalizáciu spoločnosti a jednu z priorít. Technické systémy vďaka AI dokážu nielen analyzovať dáta, ale aj samostatne rozhodovať a tvoriť. Sú pritom schopné rozlišovať prostredie a podmienky, v ktorých sa nachádzajú a riešiť to, čo rozpoznajú ako problém a konajú v záujme dosiahnuť špecifický cieľ. Technológia je schopná pracovať autonómne a do istej miery prispôsobovať svoje správanie na základe analýzy predchádzajúcich krokov (Európsky parlament 2023).

AI pritom nie je novinka, prvé štúdie, ktoré sa jej venovali, a to napríklad *Computing Machinery and Intelligence* (Turing 1950) a *Artificial Intelligence Coined at Dartmouth* (1956), vyšli pred vyše 70 rokmi. Napriek tomu boom zažíva až s dynamickým rozvojom informačných technológií v posledných rokoch, ktoré viedli k novým vylepšeniam.

AI totiž prináša zásadné a nezvratné zmeny do všetkých oblastí života človeka. Očakáva sa dokonca, že jej vplyvy na ľudskú spoločnosť budú rozsiahlejšie ako kedykoľvek v dejinách. Preto sa implementácia AI prirovnáva ku kľúčovým inovačným míľnikom v histórii jako bolo vynájdenie kolesa, kníhtlače, parného stroja, elektriny, internetu, mobilného telefónu (smartfónu) či sociálnych sietí. (Prokeš et al. 2024)

Aj podľa štúdie *This is how AI is impacting – and shaping – the creative industries, according to experts at Davos* AI nahradí mnohé tradičné činnosti. V kreatívnom priemysle by mohla generovať väčšinu mediálneho obsahu. Niektoré predikcie hovoria dokonca o 90 % podiele (World Economic Forum 2024).

Za prelomový míľnik v rozvoji AI sa považuje uvedenie prvého generatívneho AI chatbota s názvom *ChatGPT* od spoločnosti *OpenAI*. Stalo sa tak 30. novembra 2022. Odvtedy táto oblasť AI rastie závratným tempom, pričom sa k nej pridali technologickí giganti ako *Microsoft, Google, Amazon* a ďalší (Glover 2024).

Richard Waters (2025) v komentári, ktorý vyšel v denníku *Financial Times* a neskôr ho prevzali mnohé médiá po celom svete, uvádza, že žiadna iná spoločnosť nikdy nevybudovala internetové impérium zamerané na služby spotrebiteľom tak rýchlo ako *OpenAI*. Spoločnosti *Google* trvalo 13 rokov, kým získal miliardu používateľov. *Facebook* dosiahol rovnaký míľnik za osem rokov. Vďaka úspechu *ChatGPT* sa zdá, že *OpenAI* to zvládne za tri roky (aktuality.sk 2025).

Generatívna AI dokáže vytvárať samostatne celkom nový obsah a to nielen text, ale aj obrázky, grafy, grafiku, fotografie ba dokonca zvuk a hudbu (audio), ale aj video. Schopnosť umelej inteligencie generovať realistickú reč predstavuje zásadný prelom v oblasti syntézy zvuku. Architektúra *WaveNet* od spoločnosti *DeepMind* umožnila vytvárať prirodzene znejúci hlas, ktorý sa používa napríklad v *Google Assistant*. Platforma *ElevenLabs* rozširuje tieto možnosti na viacero jazykov a využíva sa pri tvorbe audiokníh, reklám či videí v profesionálnej kvalite. Technológie už používajú aj slovenské kreatívne štúdiá, ktoré vďaka nim šetria čas a náklady spojené s nahrávaním v štúdiách. Súčasne však vznikajú obavy z ohrozenia práce ľudských hlasových hercov a z etických rizík spojených s využívaním syntetických hlasov (Dúbravská & Višňovský 2024).

Nárast popularity videa v digitálnom prostredí, najmä na sociálnych sieťach, potvrdzuje aj štúdia *Digital News Report* (Newman 2025). V krajinách, ktoré monitoruje, sa podiel ľudí sledujúcich spravodajské videá na sociálnych sieťach zvýšil z 52 % v roku 2020 na 65 % v roku 2025, kým sledovanie videoobsahu celkove vzrástlo zo 67 % na 75 %.

Štúdia tak potrdzuje, že video naďalej získava na dôležitosti na jednej strane ako zdroj správ, ale aj ako zdroj zábavy, nástroj na vzdelávanie sa či ako prostriedok, ktorý pomáha divákovi rozhodnúť sa pri kúpe tovaru alebo služby.

Špecifickou oblasťou pri generovaní videa je aj automatické vytváranie avatarov, virtuálnych moderátorov s ľudským výzorom. V súčasnosti technológia možňuje (napríklad platformy *AiVATAR, HeyGen, Synthesia, VEED*), že sú schopní viac či menej presvedčivo a dôveryhodne prezentovať akýkoľvek obsah. Tento inovatívny spôsob komunkácie nachádza uplatnenie najmä v digitálnich médiách a reklame. Avatar sa stal populárnym najskôr v hernom priemysle, teraz sa však čoraz viac využíva aj na sociálnych sieťach, a teda začína byť zaujímavý aj pre nemediálne spoločnosti. Štandardným nástojom na prezentáciu výrobkov a služieb, rovnako na komunikovanie s klientami, ale aj zamestnancami a spolupracovníkmi sa totiž stáva video. Cieľom našej štúdie je stručné zmapovanie využívania avatarov a situácie v aktuálnej ponuke bežných voľne dostupných AI nástrojov a služieb na

ich generovanie. Uvádzame zásadné príklady ich využívania v mediálnom prostredí, ktoré môžu byť inšpirujúce aj pre nemediálne sektory, poukazujeme na limity v praktickom využití a načrtneme aj perspektívy vývoja.
Unikátnym prínosom príspevku je tiež skutočnosť, že reflektuje jedinečné empirické znalosti autorov. Prvý má vyše 30-ročné praktické skúsenosti ako novinár a mediálny manažér, bývalý šéfredaktor popredného slovenského denníka a webu Pravda. V súčasnosti sa venuje výskumu limitov implementácie AI práve aj v súvislosti s avatarmi na pôde Slovenskej technickej univerzity v Bratislave, konkrétne na Fakulte informatiky a informačných technológií (FIIT STU). Okrem toho spolupracuje s Univerzitou sv. Cyrila a Metoda v Trnave, kde je externým doktorandom na Fakulte masmediálnej komunikácie (FMK UCM) a snaží sa prepájať technické a humanitné smery v kontexte inovácií. Druhý autor je univerzitný profesor, ktorý sa zaujíma o otázky týkajúce sa žurnalistiky v kontexte rozvoja informačných a komunikačných technológií.

2 AVATAR A JEHO ZAČIATKY

AI prináša revolúciu v medziľudskej komunikácii, v našom prípade aj pri tvorbe videa pre mediálny obsah, ale aj reklamu, marketing, obchod, vzdelávanie a ďalšie oblasti. AI môže zjednodušiť a zautomatizovať výrobné a distribučné procesy, znížiť vstupné náklady, inovovať a zatraktívniť formu produktu, a teda obsahu, ale aj personalizovať obsah. Inými slovami, ponúknuť obsah šitý na mieru toho-ktorého diváka či presnejšie zákazníka.
Rovnako však AI môže rozšíriť doterajšie publiká a cieľové skupiny, napríklad zjednodušiť komunikáciu ľuďom so zdravotným handicapom. Konkrétnym prípadom je dyslektik Cliff Weitzman, generálny riaditeľ a zakladateľ spoločnosti *Speechify,* ktorého vlastná neschopnosť čítať text, a zároveň pozitívny vzťah ku knihám priviedli na myšlienku globálne produkovať audioknihy práve pomocou AI avatarov. Hoci v tomto prípade ide „len“ o audio a *Speechify* sa venuje primárne „generovaniu AI hlasov pre vytváranie audio nahrávok s ľudskou kvalitou v reálnom čase“ Weitzman v článku *Čo je Avatar: Pôvod a využitie v každodennom živote* pripomína, že pojem „avatar“ v oblasti digitálnej technológie a virtuálnych prostredí definuje grafické zobrazenie používateľa alebo jeho alter ego či postavu. Avatar teda môže byť vytvorený dvojrozmerne ako postava, ikona alebo obrázok, rovnako trojrozmerne napríklad v počítačovej hre alebo virtuálnom svete. Toto použitie termínu sa stalo populárnejším s rastom online komunít a virtuálnych hier (Weitzman 2023).
Mimochodom, pojem „avatar“ pôvodne v hinduizme označoval božstvo či božskú bytosť, ktorá zostúpila na Zem v ľudskej alebo zvieracej podobe.
V mediálnom prostredí sa avatary v ľudskej podobe využívajú už viac ako 25 rokov a najčastejšie v úlohe moderátorov správ. Za prvý takýto počin možno označiť projekt *Ananova*. Virtuálnu moderátorku s týmto menom predstavili ešte v apríli 2000 a vyvinula ju britská agentúra Press Association (BBC 2000). Neskôr technológiu a jeho značku kúpil mobilný operátor Orange a implementoval ju do svojho spravodajského servisu.
Odvtedy sa avatary objavovali v médiách viac-menej pravidelne, ale vždy skôr z marketingových dôvodov, aby upozornili a inovatívnosť média alebo zvýšili atraktivitu konkrétniho projektu či podujatia a pritiahli záujem odbornej i širokej laickej verejnosti. Ako príklady môžeme uviesť projekty *Vivian* (USA), *Yuki* (Japonsko), *Luisia* (Južná Korea), *Xioa Long* (Čína).
Za ďalší významný míľnik možno označiť uvedenie prvého kompletného AI moderátora správ, ktorého v roku 2018 na Svetovej internetovej konferencii v Číne predstavili spoločne tamojšia štátna tlačová agentúra Nová Čína (Xinhua) a jedna z najvýznamnejších domácich technologických spoločností Sogou (Xinhua 2018). Virtuálny moderátor čítajúci správy v anglickom a čínskom jazyku mal na tvári okuliare, na sebe sivý oblek, bielu košeľu a kravatu. Sedel strnulo za stolom, gestá a mimika boli minimálne, resp. žiadne, hlas bol

strojový a synchronizácia pohybu pier a hlasu ešte vôbec nefungovala. Odvtedy avatara niekoľkokrát vylepšili. Až s celosvetovým nástupom generatívnej AI sa však ukázal potenciál tejto technológie naplno, pretože začal byť dostupný de facto širokej verejnosti.

Obrázok 1. Míľniky pri avatroch pre médiá: Prvý AI moderátor, ktorého predstavili v Číne v roku 2018 (vľavo) mal ľudský vzhľad. Celkom prvá virtuálna moderátorka *Ananova* uvedená vo Veľkej Británii v roku 2000 sa podobala skôr na animovanú postavu z filmu alebo počítačových hier. *Zdroj: Xinhua a BBC NEWS*
http://www.xinhuanet.com/english/2018-11/08/c_137591813.htm
http://news.bbc.co.uk/2/hi/entertainment/718327.stm

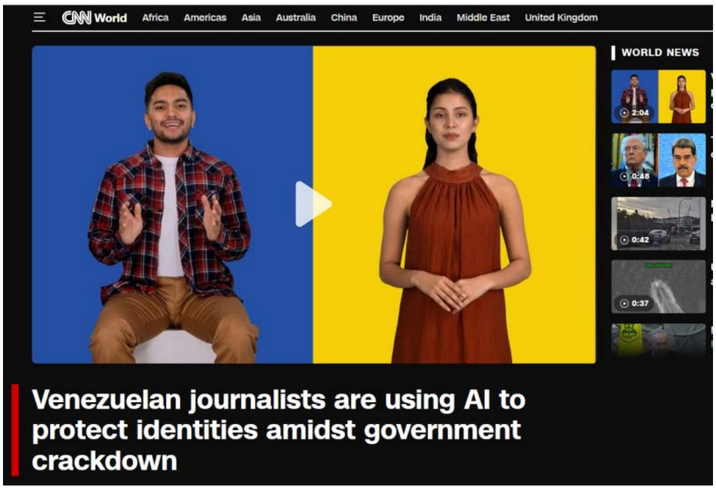
3 VYUŽITIE AVATAROV V MEDIÁLNEJ PRAXI

Ako sme už spomínali, niekedy je cieľom využitia avatarov v digitálnych médiách alebo televíznom vysielaní marketing a publicita, inokedy však môžu byť dôvody praktické, nielen komerčné, dokonca môžu chrániť novinárov, ich životy a blízkych. Alebo upozorniť na limity (technologické, implementačné, finančné, mentálne, legislatíne, etické a pod.) či podporovať vzdelávanie a výskum. Uvádzame niekoľko príkladov z nedávnej doby:

1) Popredná komerčná televízia v Indonézii TVOne, priekopník v oblasti implementácie AI v mediálnom biznise v juhovýchodnej Ázii, využíva tri virtuálne moderátoky *Sasya, Nadiru* a *Bhoomi*, navrhnuté podľa troch troch skutočných moderátoriek. Podľa štúdie *Use of Artificial Intelligence Technology AI News Presenter in the News Production Process at TVOne.ai* bolo cieľom, o.i., zviditeľniť prácu žien v médiách. Pričom ozajstné moderátorky reprezentujú televíziu v klasickom vysielaní a tie virtuálne zase na platformách, kde je obsah vytváraný pomocou AI (Karunianingsih et al. 2025). Jednoducho povedaná, generované hlásateľky sa využívajú tam, kde by tie skutočné už nemali kapacitu nastúpiť, ale keďže sú známe a populárne, nebol dôvod hľadať nové tváre. Výhodou avatara je navyše skutočnosť, že k dispozícii je prakticky stále, 7 dní v týždni a 24 hodín denne. Európskemu divákovi by sa tiež mohlo zdať, že vzhľad, respektíve odev moderátoriek (viditeľné vlasy, alebo šatka na hlave, ktorá ich ukrýva, krátke rukávy a holé paže, alebo dlhé rukávy a golier tesne pod krkom, napr. *Nadira* nosí hidžáb.) súvisí aj s náboženským vierovyznaním divákov, a teda personalizovaním obsahu pre rôzne cieľové skupiny. Túto domnienku sa nám však nepodarilo ani potvrdiť, ani vyvrátiť.

Obrázok 2. Využitie avatarov v indonézskej TV One: Moderátorky generované pomocou AI sú vľavo, skutočné na fotografiách vpravo. *Zdroj: COMMICAST*
https://doi.org/10.12928/commicast.v6i2.14323

2) V apríli 2024 TV CNN zverejnila reportáž o tom, že vo Venezule začala skupina nezávislých novinárov využívať dvoch AI avatarov na vlastnú ochranu. Títo digitálni moderátori sa na internete objavili po kontroverznom zvolení tamojšieho prezidenta Nicolása Madura, keď jeho vláda zintenzívnila zásahy proti nezávislým médiám. Skupina žurnalistov, ktorí sa cítili ohrození, využila dostupnosť a potenciál moderných technológií pri generovaní avatarov, vytvorila pomocou nástrojov generatívnej AI muža a ženu, ktorých predstavila ako nových moderátorov. Ich úlohou je Venezuelčanom prinášať nezávislé správy a informovať verejnosť bez strachu, že by bola ohrozená identita skutočných novinárov (CNN 2024).



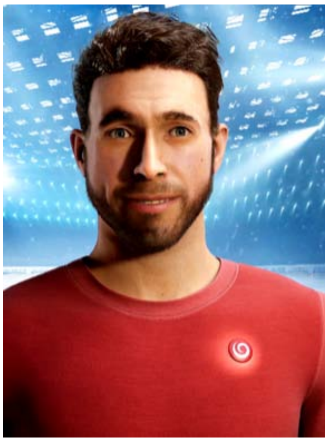
Obrázok 3. AI moderátori z Venezuely. Ich úlohou je chrániť identitu skutočných novinárov, ktorí pripravujú nezávislé spravodajstvo, pred štátnou mocou. *Zdroj: CNN*
https://edition.cnn.com/2024/09/18/world/video/venezuela-journalists-ai-maduro-election-digvid

3) Virtuálni moderátori sú čoraz populárnejší a tento trend dorazil už aj na Slovensko či do Českej republiky. Začiatkom novembra 2025 odštartovala česká TV CNN Prima NEWS

videopodcast AI NEWS, ktorý je dostupný na webe aj v podcastových aplikáciách. Predstavila sa v ňom virtuálna moderátorka *Nora*, ktorej úlohou je divákom na praktických príkladoch ukázať ako využívať nástroje AI v každodennom živote. Prvá plne digitálna moderátorka tejto televízie vznikla v spolupráci s Českou asociáciou umelej inteligencie a spoločnosťou YDEAL.

V článku *Na obrazovku prichádza virtuálna moderátorka: TV diskusiu posilní umelá inteligencia* dramaturg relácie Milan Blažek povedal, že projekt otvára dvere do sveta umelej inteligencie – fenoménu, ktorý mení spôsob, akým žijeme, pracujeme aj premýšľame. Virtuálna moderátorka podľa neho ukazuje, že AI nie je len nástroj, ale aj inšpirácia (Hrnčárová 2025).

Na Slovensku je jedným z posledných príkladov využitia virtuálnych moderátorov v médiách *Adam*, ktorý v TV JOJ debutoval počas majstrovstiev sveta v hokeji 2025. Prinášal športové novinky, pokúšal sa tiež diskutovať s divákmi v reálnom čase. Televízia plánuje projekt ďalej rozvíjať a uvažuje, že rozšíri schopnosti avatara na príspevky o trendoch, novinkách, seriáloch, hudbe, šoubiznise či zákulisí z televízie.



Obrázok 4. Príklady AI moderátorov z Česka a zo Slovenska: *Nora* (vľavo) popularizuje AI v TV CNN Prima NEWS, *Adam* (vpravo) mal zatraktívniť program počas hokejových MS 2025 v TV JOJ. *Zdroj: CNN Prima NEWS a JOJ*
https://medialne.trend.sk/televizia/obrazovku-prichadza-virtualna-moderatorka-tv-diskusiu-posilni-umela-inteligencia?itm_template=search&itm_modul=articles-search-list&itm_position=1

4) Špecifickým príkladom implementácie avatarov v našich podmienkach sú výsledky výskumov a vývoja na FIIT STU v Bratislave (participuje na nich aj jeden zo spoluautorov tohoto článku, pričom týmto výsledkom venujeme osobitnú štúdiu). Cieľom je najkvalitnejšie dostupné technológie nakombinovať tak, aby vznikol používateľsky atraktívny, rýchly a čo najlacnejší nástroj, maximálne jednoduchý na ovládanie, s ktorým dokáže video s avatarom vytvoriť každý po krátkom zaškolení, teda aj človek, ktorý nemá IT vzdelanie alebo hlbšie vedomosti a skúsenosti. Nástroj reflektuje najnovšie trendy a požadavky médií, reklamy, marketingu či priemyselných alebo iných odvetví. Človek pracujúci s nástrojom má zároveň obsah (text, hlas, obraz) neustále pod kontrolou. Nástroj umožňuje modifikovať avatara a prostredie okolo neho, konkrétne text a grafiku, animáciu, rôzne efekty, a samozrejme, umožňuje do videa vkladať aj fotografie alebo ďalšie video (napríklad spravodajské, inštruktážne alebo s komerčným obsahom). Nástroj stlačil výrobné náklady videa na minimum; na jeho výrobu nie je potrebný filmový štáb, ani prenajímať priestory v štúdiu, inde v interiéri či exteriéri, netreba ani tím ľudí. Celú produkciu videa zvládne jeden človek za niekoľko minút.

FIIT STU technológiu po prvý raz verejne a pre vlastné potreby využila 12. decembra 2025 na podujatí Dni otvorených dverí. Avatary *FITO* a *AIVA*, na vytvorení ktorých sa podieľali aj študenti FIIT, pozývali na štúdium na fakulte, predstavili jej zameranie, výsledky, úspechy a ďalšie benefity inovatívnym spôsobom. V atraktívnych videách, ktoré imitovali spravodajské reportáže a reklamné spoty sa prihovárali stredoškolákom – potenciálym študentom fakulty, ale aj ich rodičom. Videá boli využité na sociálnych sieťach, v mailovej komunikácii i pramo na pôde FIIT (na monitoroch vo foyer a premietacích plochách v aule). Zamýšľaný WoW effekt, ktorý fakulta chcela dosiahnuť, sa podaril, Reakcie boli nadšené.

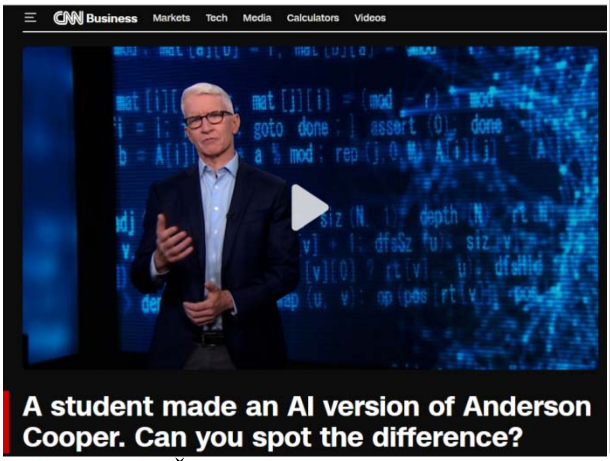
Obrázok 5. Avatary *FITO* a *AIVA*: Ukážka využitia dvoch z niektorých avaratov, vytvorených na FIIT STU v Bratislave. Fakulta avatarov použila napr. aj v komunikácii cielenej na stredoškolákov. *Zdroj: FIIT STU*

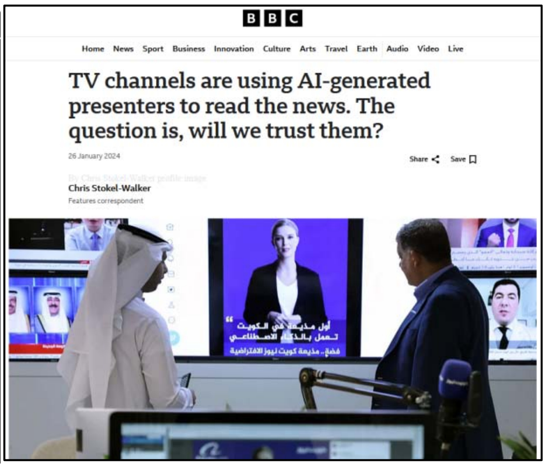
4 DISKUSIA A ZHRNUTIE

Chýbajúce znalosti technológie, financie a čas dnes už nie sú rozhodujúcim limitom. Generovanie kvalitných a dôveryhodných avatarov vytvorených na mieru publika je pomerne dostupné a pri správnom know-how aj rýchle a lacné a zvládne ho i laik. Rovnako pri AI však platí, že každú technológiu možno využiť na ušľachtilé ciele, ale aj zneužiť. Hoci manipuácie a dôveryhodnosť obsahu nie sú témou tejto štúdie, aspoň okrajovo sa ich musíme dotknúť. Nezodpovedné generovanie obsahu pomocou široko dostupnej AI technológie bez pravidel a kontroly, totiž prináša v ére deep fake značné riziká.

Na toto nebezpečenstvo upozornil v decembri 2023 český študent Matyáš Boháček, keď pre reláciu *The Whole Story with Anderson Cooper* na globálnej TV CNN spoluvytvoril deepfake avatara známeho moderátora Andersona Coopera. Tento AI avatar napodobňoval jeho podobu aj hlas natoľko presvedčivo, že niektorí producenti mali problém rozoznať ho od skutočného moderátora (CNN 2023).

Digitálne dvojča populárneho novinára od živého kolegu nedokázali rozpoznať ani v newsroome CNN. Vtedy ešte trvalo generovanie avatara niekoľko týdňov. Boháček však chcel upriamiť pozornosť na skutočnosť, že odhaľovanie fake news, zámerne upraveného, teda falšovaného obsahu bude stále ťažšie a týka sa už aj fotografií a videa. Vzhľadom na eruptívny nárast generovaného obsahu by riešením mohlo byť označovanie. Boháček navrhol, aby každý obsah zverejnený online mal v sebe integrovaný akýsi informačný štítok pôvodu a kvality, podobne ako je to napríklad pri potravinách. Štítok by upozorňoval nielen na to, kedy a kde obsah vznikol, ale aj na to, či bol upravený a ako. Boháček, ktorý s podporou OSN vyvinul aj aplikáciu na prevod znakovej reči do textovej a zvukovej podoby, vysvetľuje, že informačný štítok je jednoduchý spôsob, ako by si používateľ mohol ihneď overiť, že obsah je autentický a nevydáva sa za niečo, čo nie je (ČT 24 2024).





Obrázok 6. Čo ďalej? Vľavo Avatar vytvorený podľa skutočného novinára CNN Andersona Coopera študentom Matyášom Boháčkom, vpravo článok na webe BBC o využití AI avatarov v TV, titulok obsahuje otázku: Budeme im veriť? *Zdroj: CNN a BBC*

Dôvody využitia AI avatarov, ako sme už uviedli, môžu byť rôzne, od marketingových, finančných, inzertných, obchodných, náboženských až po bezpečnostné. Portál BBC sa ešte v januári 2024, pri vzniku TV Channel 1, ktorá plánovala obsah vrátane moderátorov generovať pomocou AI, pýtal: *Budeme im dôverovať?* Zároveň upozornil na fakt, že motiváciou generovania virtuálnych AI moderátorov môže byť aj nikdy sa nekončiaci boj o diváka zosilnený čoraz ostrejšou konkurenciou. Konkrétne upozornil na pokles dôvery divákov v súčasných živých TV moderátorov. Portál pripomenul, že avatar iste nenahradí špecifický „parasociálny" vzťah divák-moderátor, najsilnejší najmä pred viacerými dekádami (azda najviac v prvej generácii TV divákov), keď divák považoval moderátora správ za akéhosi „priateľa jeho rodiny, ktorému možno vždy veriť". Napokon, tento vzťah si diváci v ére digitálnych médií už kompenzujú u živých influencerov na sociálnych sieťach, pričom ich prechod k virtuálnym moderátorom nik naočakáva (Stokel-Walker, 2024).

Nástup AI riadenej produkcie a avatarov moderátorov však vyvoláva etické otázky. Bude potrebné vytvoriť etické rámce a regulatívy na transparentné používanie týchto technológií. Pokrok v AI, virtuálnej realite a grafike bude ďalej transformovať televízny priemysel. AI nástroje na druhej strane zároveň posilnia kontrolu faktov a odhaľovanie dezinformácií v spravodajstve.

Mimoriadne dynamický rozmach a zdokonaľovanie AI technológie a následná rastúca dôveryhodnosť a s tým súvisiaca popularita generovaných avatarov otvára možnosti ich širšieho využitia. Atraktívni virtuálni moderátori s ľudským výzorom sú schopní úspešne prezentovať akýkoľvek obsah, nielen ten mediálny. Zároveň, ako sa video stáva štandardným nástrojom na komunikovanie a algoritmy umožňujú personalizovat akýkoľvek digitálny obsah, AI avatar je využiteľný nielen na prezentáciu správ, ale hocijakého tovaru, služieb či znalostí. Po prvých skúsenostiach v médiách sa môže stať čoskoro de facto hocikým – šikovným predajcom, empatickým a efektívnym lektorom či len zábavným spoločníkom vyrobeným na mieru každého jednotlivca v každej cieľovej skupine.

Vedecký príspevok vznikol v rámci výskumného projektu podporovaného Vedeckou grantovou agentúrou Ministerstva školstva, výskumu, vývoja a mládeže Slovenskej republiky a Slovenskej akadémie vied (VEGA) č. 1/0014/25 s názvom „Digitálna transformácia tradičných odvetví mediálneho priemyslu: Ekonomické, sociálno-kultúrne a právne konzekvencie platformovej ekonomiky médií".

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USE OF HIGH-PERFORMANCE COMPUTING AS A TOOL TO SUPPORT INNOVATION IN THE ACADEMIC AND PRIVATE SECTORS IN THE CONDITIONS OF A NATIONAL COMPETENCE CENTER

Lucia Malíčková, Jaromír Tichý

Abstract

The paper examines the role of high-performance computing (HPC) as a tool for supporting innovation in both academia and the private sector. The aim is to propose an integrated framework for the effective use of HPC services within a competence center, with an emphasis on team composition and strategic communication. The study combines technological, social and managerial perspectives on HPC implementation. The theoretical part outlines the basic principles of HPC, its position in current innovation ecosystems and the influence of human factors on technological adaptability. The application part assesses team roles using an extended assessment based on the Belbin model, examines the alignment between team roles and project tasks and formulates recommendations aimed at improving team performance. In parallel, an archetype-driven communication model is presented, supported by scientific storytelling techniques, which is empirically reflected through social media performance indicators. The paper presents selected success stories demonstrating practical applications of HPC and key factors for wider implementation. The results suggest that structured communication strategies significantly contribute to better adoption of advanced technologies and strengthen trust in scientific and innovation institutions.

Keywords: High-Performance Computing, Innovation, Research, Entrepreneurship, Academia, Private Sector

1. INTRODUCTION

High Performance Computing (HPC) represents a critical enabling infrastructure for innovation, scientific research, and industrial development. While HPC was historically limited to academic and research institutions, it has become an integral component of digital transformation and advanced industrial applications. Its ability to process large-scale data and perform complex simulations supports a wide range of domains, including artificial intelligence, climate modelling, bioinformatics, materials engineering, and predictive analytics. Despite these capabilities, the practical adoption of HPC outside specialised research environments remains uneven.

Many countries operate national HPC infrastructures and participate in international collaborative initiatives aimed at strengthening computational capacities and innovation ecosystems. Nevertheless, the existence of advanced computing resources does not automatically translate into effective utilisation in research and business practice. Prior studies have largely concentrated on system architecture, computational performance, and algorithmic optimisation, whereas organisational, human, and communication-related aspects of HPC adoption have received comparatively limited attention.

From this perspective, HPC should be understood not only as a technological asset but also as a socio-managerial phenomenon embedded in complex innovation ecosystems. Competence centres and intermediary organisations play a crucial role in connecting advanced computing technologies with academic, industrial, and public-sector users. Their function extends beyond providing access to infrastructure and includes supporting interdisciplinary collaboration, facilitating knowledge transfer, and translating complex technical capabilities into accessible and usable solutions.

This paper addresses these challenges by examining factors that influence the successful integration of HPC into research and commercial environments. Particular emphasis is placed on team composition, human factors, and communication strategies as key determinants of technology adoption. By integrating concepts from organisational behaviour, project management, and marketing communication, the study contributes to a broader understanding of how advanced computing technologies can be more effectively embedded in innovation-driven contexts.

2. CONCEPTUAL AND THEORETICAL BACKGROUND

High Performance Computing (HPC) is increasingly recognised as a foundational infrastructure for innovation-driven economies. Its significance no longer lies solely in raw computational performance but in its ability to enable data-intensive research, advanced simulations, and complex analytical workflows across scientific and industrial domains (Sterling et al., 2017; Reed et al., 2022). Contemporary applications of HPC include artificial intelligence, materials engineering, environmental modelling, bioinformatics, and predictive analytics, positioning HPC as a strategic enabler within modern innovation ecosystems rather than a standalone technological asset.

Despite extensive technical research focusing on system architecture, algorithmic efficiency, and performance optimisation, the adoption of HPC technologies outside specialised research environments remains uneven (Robey & Zamora, 2021). This imbalance suggests that technological availability alone does not guarantee innovation outcomes. Research in innovation management indicates that effective utilisation of advanced technologies depends on organisational readiness, managerial coordination, and the capacity to translate technical capabilities into practical value (Gassmann et al., 2021; Tidd & Bessant, 2020). Consequently, HPC adoption must be understood as a multidimensional process shaped by both technical and non-technical factors.

From the perspective of open innovation theory, HPC operates within interconnected ecosystems where knowledge flows between research organisations, industry, and intermediary structures (Chesbrough, 2021). Innovation increasingly emerges through collaboration rather than isolated development, requiring mechanisms that facilitate knowledge transfer and reduce barriers to entry for non-expert users. Competence-oriented support structures play a mediating role in this process by combining technological expertise with managerial and communicative functions, thereby enabling broader access to complex computational resources (Gassmann et al., 2021).

Human and organisational factors represent a critical dimension of this mediation process. HPC projects are inherently multidisciplinary, involving collaboration between technical specialists, domain experts, managers, and communication-oriented roles. Organisational behaviour research highlights that team effectiveness is strongly influenced by the alignment between individual roles and task requirements (Belbin & Brown, 2022). In highly specialised technological environments, performance challenges often arise not from a lack of expertise but from misaligned roles, insufficient coordination, or communication breakdowns.

Understanding team composition and role distribution is therefore essential for enhancing project efficiency and supporting sustainable technology adoption.

Communication further shapes perceptions and acceptance of HPC technologies. Due to their complexity, HPC systems are frequently perceived as abstract, inaccessible, or relevant only to experts. Studies in science communication demonstrate that traditional information-driven approaches often fail to engage decision-makers and non-specialist audiences (Bucchi & Trench, 2021; Davies & Horst, 2016). Narrative-based communication, visual metaphors, and storytelling techniques have been shown to improve comprehension, trust, and engagement, particularly when addressing complex or intangible technologies (Mark & Pearson, 2022; Miller et al., 2020). By translating technical performance into meaningful outcomes and relatable narratives, communication strategies can significantly influence perceptions of usability and relevance.

Taken together, these perspectives suggest that HPC adoption should be analysed through an integrated conceptual lens that combines technological capacity with organisational, behavioural, and communicative dimensions. Rather than treating computational performance as the sole indicator of success, this approach emphasises the importance of team alignment, managerial coordination, and narrative translation as key mechanisms enabling advanced computing technologies to generate sustainable innovation value.

3. RESEARCH DESIGN AND METHODOLOGY

The study adopts a pragmatic research philosophy and a mixed-methods design in order to capture the multifaceted nature of High-Performance Computing (HPC) adoption. This approach enables the triangulation of quantitative and qualitative data and reflects the assumption that technological adoption is shaped by intertwined technical, organisational, and communicative factors (Tidd & Bessant, 2020; Creswell & Plano Clark, 2018). The research design was structured to ensure both analytical rigor and practical relevance, with an emphasis on transferability across comparable innovation-oriented environments.

3.1 Research Context and Data Collection

Data were collected within a multidisciplinary HPC-oriented project environment that supports research and industry-facing activities. The environment brought together technical specialists, domain experts, managerial roles, and communication-focused actors, reflecting the typical composition of advanced technology implementation teams. To ensure anonymity and generalisability, the research context is described in functional rather than institutional terms.

The empirical dataset was gathered through three complementary data streams: (1) quantitative assessment of team roles, (2) qualitative insights from semi-structured interviews, and (3) performance metrics derived from digital communication channels. This triangulated design strengthens internal validity and reduces the risk of method-specific bias (Braun & Clarke, 2006).

3.2 Quantitative Assessment of Team Roles

The core quantitative instrument was an extended team-role assessment based on Belbin's Team Role theory, which conceptualises team effectiveness as a function of balanced role distribution rather than purely technical expertise (Belbin & Brown, 2022). While the original model is commonly used for organisational diagnostics, it was adapted in this study to examine the relationship between individual role profiles and specific task categories typical of HPC-related projects.

The assessment consisted of three components: a psychometric section measuring behavioural preferences on a five-point Likert scale, a situational section presenting role-relevant scenarios derived from technologically intensive project settings, and a task-mapping section linking individual roles to defined categories of project activities (e.g., coordination, training, stakeholder interaction, and communication). Quantitative data were analysed using correlation analysis to identify statistically significant relationships between role profiles and task performance. Analytical processing and visualisation were conducted using Python-based tools in a notebook environment, enabling advanced statistical operations and transparent reproducibility.

3.3 Qualitative Data and Thematic Analysis

To complement the quantitative findings, qualitative data were collected through semi-structured interviews with selected participants representing both technical and non-technical roles. The interviews focused on perceived barriers to HPC adoption, team collaboration dynamics, communication challenges, and factors influencing trust in advanced technologies. This qualitative layer provided contextual depth and enabled the interpretation of statistical patterns within real organisational experiences.

Interview transcripts and open-ended responses were analysed using thematic analysis following the six-phase framework proposed by Braun and Clarke (2006). The analysis yielded recurrent themes such as perceived complexity, communication asymmetry, role ambiguity, and the importance of mediation between technical and managerial perspectives. These themes informed the interpretation of quantitative results and supported the development of integrative conclusions.

3.4 Communication Performance Analysis

A third methodological component focused on the evaluation of communication strategies related to HPC dissemination. Performance data were collected from digital communication channels over a defined observation period, capturing metrics such as interaction volume, audience reach, and engagement intensity. To assess the impact of narrative-based communication, performance indicators were compared across two phases: a baseline period characterised by predominantly technical messaging and a subsequent period incorporating storytelling elements, visual metaphors, and outcome-oriented framing.

Time-series comparison and descriptive statistical analysis were employed to identify changes in communication performance. This approach aligns with established methods in digital communication research, where engagement metrics serve as proxies for audience understanding and interest (Miller et al., 2020; Chaffey & Ellis-Chadwick, 2019).

3.5 Validity, Reliability, and Ethical Considerations

Methodological validity was enhanced through triangulation of data sources and analytical methods. Reliability was supported by the use of established theoretical frameworks, standardised instruments, and transparent analytical procedures. To ensure ethical compliance, all participant data were anonymised, informed consent was obtained, and data processing adhered to relevant data protection principles. The research design prioritised the protection of individual identities and organisational confidentiality while maintaining analytical robustness.

4. RESULTS

This section presents the key empirical findings derived from the mixed-methods research design. The results are structured into three thematic subsections corresponding to the main analytical dimensions of the study: (1) team role alignment and project efficiency, (2) communication strategies and audience engagement, and (3) success stories as a mechanism supporting technology adoption.

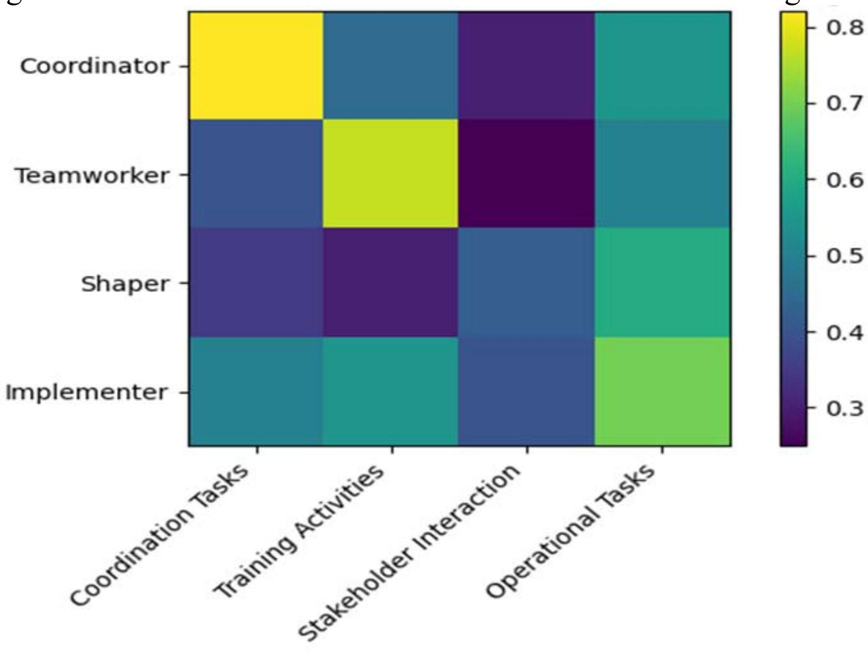
4.1 Team Role Alignment and Project Efficiency

The quantitative analysis revealed statistically significant relationships between individual team roles and specific categories of project tasks within the HPC-oriented project environment. Correlation analysis demonstrated that tasks requiring coordination, planning, and decision-making showed a strong positive association with coordinator-oriented role profiles ($r = 0.82$). Similarly, training and knowledge-transfer activities exhibited high correlation with teamworker-oriented roles ($r = 0.77$), indicating that interpersonal and facilitative competencies play a crucial role in educational and support-oriented functions.

In contrast, tasks related to external stakeholder interaction and industry-facing activities displayed weaker correlations across existing role profiles. Qualitative data supported this finding by indicating a relative underrepresentation of assertive, outward-oriented roles within the observed team composition. This misalignment was associated with reduced efficiency in tasks involving negotiation, partnership development, and market-oriented communication.

Following role realignment and task redistribution based on the analytical findings, observable performance improvements were recorded. These included reduced response times in problem-solving activities and increased autonomy among team members assigned to roles better aligned with their behavioural profiles. The results confirm that team effectiveness in technologically intensive environments is strongly influenced by the congruence between individual role predispositions and task requirements, supporting existing organisational behaviour research (Belbin & Brown, 2022).

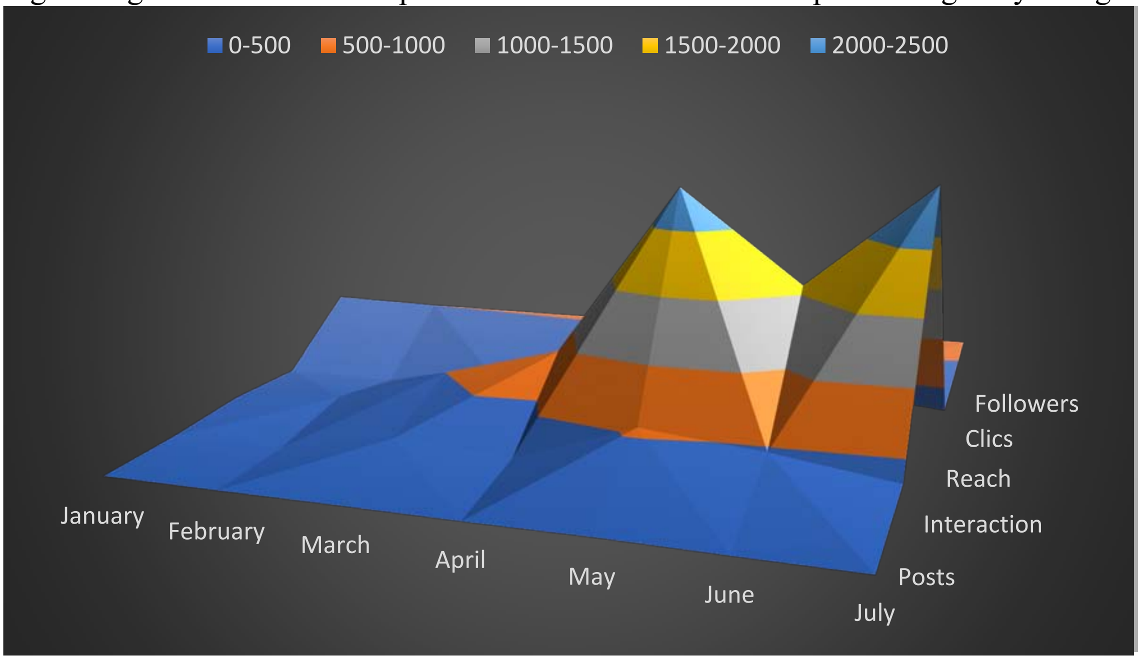
Fig. 1: Correlation Matrix Between Team Roles and Task Categories



4.2 Communication Strategies and Audience Engagement

The second set of results concerns the impact of narrative-based communication strategies on audience engagement. Comparative analysis of digital communication performance before and after the implementation of storytelling-oriented content revealed a substantial increase in engagement metrics. Following the adoption of narrative framing, visual metaphors, and outcome-oriented messaging, the volume of audience interactions increased by more than fifty times compared to the baseline period. Overall interaction growth exceeded 5,000%, while content reach expanded by a similar magnitude.

Fig. 2: Digital communication performance before and after implementing storytelling content



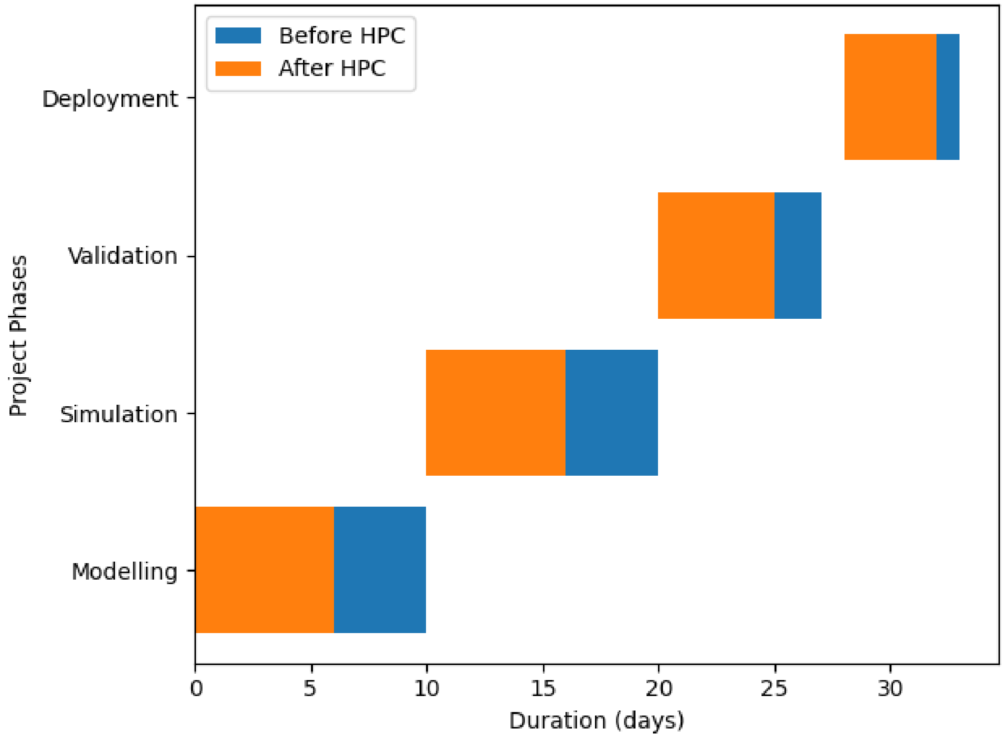
These changes were not accompanied by an increase in publication frequency, indicating that improved performance resulted primarily from content transformation rather than higher activity levels. Qualitative feedback further suggested enhanced comprehensibility and perceived relevance of HPC-related content, particularly among non-expert audiences. These findings align with research in science communication demonstrating that narrative structures facilitate cognitive processing and emotional engagement when conveying complex technological information (Bucchi & Trench, 2021; Miller et al., 2020).

4.3 Success Stories and Indicators of Technology Adoption

The third analytical dimension examined the role of success stories in supporting trust-building and technology adoption. Case-based analysis of anonymised project examples demonstrated that success stories combining quantifiable outcomes (e.g., time savings, cost reduction, performance gains) with contextual narratives generated the highest levels of audience engagement and inquiry. Quantitative indicators included reductions in development timelines of up to one-third and overall cost savings of approximately 35% following the application of HPC-supported solutions.

In addition to technical performance improvements, success stories incorporating personal experience and societal relevance were found to strengthen perceived credibility and reduce perceived barriers to adoption. The integration of data-driven evidence with human-centred narratives proved particularly effective in accelerating interest among potential users and decision-makers. These findings support the hypothesis that success stories function not only as promotional tools but also as measurable indicators of technology adoption and trust formation (Mark & Pearson, 2022; Davies & Horst, 2016).

Fig. 3: Comparison of Project Development Phases Before and After HPC Adoption



5. DISCUSSION

The findings of this study confirm that the adoption of High Performance Computing (HPC) technologies cannot be sufficiently explained by technical performance indicators alone. Instead, the results highlight the decisive role of organisational alignment, human factors, and communication strategies in enabling effective utilisation of advanced computing resources. By integrating quantitative and qualitative evidence, this research contributes to a more holistic understanding of HPC adoption as a socio-technical and managerial process.

The results related to team role alignment support existing organisational behaviour research, which emphasises that project performance is influenced by the congruence between individual roles and task requirements rather than by technical expertise in isolation (Belbin & Brown, 2022). The strong correlations observed between coordination-oriented roles and management tasks, as well as between teamworker-oriented roles and training activities, demonstrate that behavioural predispositions significantly shape task effectiveness in technologically intensive environments. Conversely, weaker alignment in externally oriented tasks suggests that adoption barriers may emerge when teams lack roles suited for negotiation, outreach, and stakeholder engagement. This finding extends prior research by demonstrating that role misalignment can directly affect the capacity of HPC-oriented teams to bridge the gap between technical capability and market or societal uptake.

The communication-related findings further reinforce the importance of translation mechanisms in technology adoption. The substantial increase in engagement following the introduction of narrative-based communication confirms insights from science communication literature, which argue that complex technologies are more readily understood when framed through stories, metaphors, and outcome-oriented narratives (Bucchi & Trench, 2021; Miller et al., 2020). Rather than diluting technical credibility, the use of storytelling appears to enhance trust and perceived relevance, particularly among non-expert audiences and decision-makers. These results align with archetype-based branding theory, which suggests that communication effectiveness increases when messages resonate with underlying motivational and value structures (Mark & Pearson, 2022).

The analysis of success stories provides additional insight into the mechanisms through which trust and adoption are reinforced. Case-based evidence demonstrates that success stories combining quantifiable outcomes with contextual narratives function as powerful signals of feasibility and value. This supports innovation diffusion theory, which emphasises observability and perceived advantage as key drivers of adoption (Rogers, 2003). In the context of HPC, success stories serve not only as communication artefacts but also as measurable indicators of adoption readiness, reducing perceived risk and accelerating decision-making processes.

Taken together, the findings suggest that effective HPC adoption requires an integrated management approach that aligns team composition, task allocation, and communication strategy. From a theoretical perspective, this study contributes to the literature by bridging research on high-performance computing with organisational behaviour, innovation management, and science communication. It extends existing models by demonstrating how human-centred and narrative-driven mechanisms can complement technical excellence to produce sustainable innovation outcomes.

From a practical standpoint, the discussion underscores the need for organisations supporting advanced technologies to move beyond infrastructure-centric strategies. Emphasising role-based team design, targeted communication, and evidence-based storytelling may significantly enhance the impact and reach of HPC initiatives. These insights are transferable to other advanced technology domains where complexity and perceived inaccessibility pose barriers to adoption.

6. CONCLUSION

This paper examined the adoption of High Performance Computing (HPC) from a perspective that extends beyond technical performance and infrastructure availability. By integrating organisational, behavioural, and communication-related dimensions, the study demonstrated that effective HPC utilisation is shaped by human factors, team alignment, and the ability to translate complex technologies into meaningful value for diverse stakeholders.

The findings confirm that alignment between team roles and task requirements plays a critical role in project efficiency within technologically intensive environments. Teams in which behavioural predispositions were congruent with coordination, training, and implementation tasks achieved higher effectiveness than those characterised by role misalignment. These results highlight the importance of role-based team design as a managerial tool for supporting advanced technology adoption.

In addition, the study showed that communication strategies grounded in storytelling, visualisation, and archetype-based framing significantly enhance audience engagement and trust. Rather than diminishing technical credibility, narrative-based communication was found to improve comprehension and perceived relevance, particularly among non-expert audiences. Data-driven success stories further emerged as a powerful mechanism for reducing perceived adoption barriers and accelerating decision-making by linking technical outcomes with tangible benefits and societal impact.

From a theoretical perspective, this research contributes to the literature by positioning HPC adoption as a socio-technical process embedded in innovation ecosystems. It bridges high-performance computing research with organisational behaviour, innovation management, and science communication, offering an integrated framework applicable to other complex and data-intensive technologies. From a practical standpoint, the results suggest that organisations supporting advanced technologies should prioritise role-based team optimisation, targeted communication strategies, and evidence-based storytelling to maximise the impact of their infrastructures.

Future research may extend this approach by examining long-term adoption effects across different sectors and by quantitatively comparing alternative communication models in technology-driven environments. Overall, the study underscores that innovation begins not with technology itself, but with people and the ways in which technology is organised, communicated, and embedded into practice.

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ASSISTIVE DIGITAL TECHNOLOGIES FOR ADHERENCE MONITORING AND EVALUATION USING MULTIMODAL PATIENT DATA

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Abstract

Adherence to therapeutic recommendations is a key determinant of treatment effectiveness across medical disciplines, yet its reliable assessment remains challenging in real-world settings. This paper presents an assistive digital framework for adherence monitoring and evaluation based on multimodal patient-generated data. The proposed system integrates wearable-derived physiological data, mobile self-reported behavioral inputs, and contextual clinical information into a unified assessment pipeline. An interpretable algorithmic approach combining categorical evaluation, normalization, and weighted aggregation is introduced to quantify daily adherence. The framework emphasizes transparency, flexibility, and practical usability rather than black-box prediction models. Pilot study confirmed technical feasibility, reliable data integration, and high user acceptance, supporting the applicability of the approach in real-world conditions.

Keywords: *assistive technology, mobile application, multimodal data, health, wearable technologies*

1 INTRODUCTION

Adherence to therapeutic recommendations represents a critical determinant of treatment effectiveness across a wide range of medical domains. Insufficient adherence to prescribed behavioral, pharmacological, or lifestyle interventions is associated with reduced clinical outcomes, increased healthcare costs, and diminished quality of life [1]. Despite its recognized importance, adherence remains difficult to monitor objectively, particularly outside controlled clinical environments. Traditional approaches relying on patient self-reporting or sporadic clinical assessments often fail to capture the dynamic and context-dependent nature of everyday patient behavior [2,3].

Recent advances in digital health technologies have created new opportunities for continuous and unobtrusive adherence monitoring. Wearable sensors, mobile health applications, and connected medical devices enable the collection of diverse patient-generated data reflecting physiological signals, behavioral patterns, and subjective experiences [4,5]. When combined, such multimodal patient data provide a more comprehensive view of adherence-related behavior than any single data source alone. However, the increasing volume and heterogeneity of these data also introduce significant challenges related to integration, interpretation, and meaningful clinical utilization [6].

Assistive digital technologies aim to address these challenges by supporting both patients and healthcare professionals through intelligent data processing, feedback mechanisms, and decision support. Within the context of digital therapeutics, assistive systems can facilitate personalized monitoring, early detection of non-adherence, and adaptive interventions tailored to individual patient needs [7]. A key requirement for such systems is the availability of transparent and interpretable methods for translating raw multimodal data into actionable adherence indicators that can be understood by end users without advanced technical expertise [8].

This paper presents a technological and algorithmic framework for adherence monitoring based on multimodal patient-generated data. The proposed approach integrates data from wearable devices, mobile self-reporting tools, and clinically relevant measurements into a unified adherence evaluation model. A weighted daily adherence score is introduced to enable standardized assessment across heterogeneous parameters while preserving flexibility for different therapeutic contexts. The framework has been implemented within an assistive digital system and preliminarily verified through application in a pilot observational study, demonstrating its feasibility for real-world adherence monitoring. By focusing on system architecture, data integration, and algorithmic design, this work contributes to the development of scalable assistive digital technologies supporting adherence within digital therapeutic pathways.

2 SYSTEM ARCHITECTURE

The proposed assistive digital system was designed to support continuous adherence monitoring through the integration of heterogeneous patient-generated data sources. The architecture follows a modular and scalable design, enabling flexible adaptation to different therapeutic contexts and monitored parameters. The system combines wearable-based physiological sensing, mobile self-reporting, and clinically relevant measurements into a unified data processing pipeline.

2.1 Data Acquisition Layer

The data acquisition layer consists of multiple sources capturing complementary aspects of patient behavior and physiological state. First, wearable devices are used to continuously monitor objective physiological and activity-related parameters, such as sleep duration, physical activity, and daily routines. These devices enable passive, unobtrusive data collection in real-world conditions, minimizing patient burden and recall bias.

Second, a custom mobile application serves as a self-reporting interface for collecting subjective and behavioral data. Through short daily questionnaires, patients report variables relevant to therapeutic adherence, including perceived stress, lifestyle behaviors, and task completion. The application is designed to ensure high usability and compliance by limiting interaction time and employing simple input mechanisms.

In addition to patient-generated data, selected clinically relevant measurements may be incorporated when available. These measurements, obtained during routine clinical visits or remote assessments, provide contextual validation and enhance the interpretability of digitally collected data. Together, these sources form a multimodal dataset reflecting both objective and subjective dimensions of adherence.

2.2 Data Synchronization and Integration

A critical component of the system architecture is the temporal synchronization and integration of heterogeneous data streams. Data originating from wearable devices, mobile self-reports, and clinical measurements differ in sampling frequency, timing, and format. To address this heterogeneity, all data are aligned to a common temporal reference, typically a daily observation window.

Wearable-derived parameters are aggregated into daily summaries using predefined rules corresponding to the monitored therapeutic objectives. Self-reported data are time-stamped at the moment of user input and linked to the same daily window. Clinical measurements are associated with the closest relevant time interval and treated as contextual inputs rather than continuous signals. This synchronization strategy enables consistent pairing of multimodal data for downstream adherence evaluation.

2.3 Data Processing and Normalization

Following integration, raw data undergo preprocessing and normalization to ensure comparability across parameters. Continuous variables are transformed into clinically or behaviorally meaningful categories based on predefined thresholds. These thresholds may reflect recommended therapeutic targets, clinical guidelines, or empirically derived reference ranges.

Each parameter is subsequently mapped onto a normalized adherence scale, allowing heterogeneous inputs to be combined within a single evaluation model. This normalization step is essential for maintaining interpretability and preventing dominance of any single data modality. The resulting normalized values form the input to the adherence scoring algorithm described in the subsequent section.

2.4 Adherence Evaluation and Feedback Layer

The adherence evaluation layer implements the algorithmic logic for computing daily adherence scores based on weighted combinations of normalized parameters. Weighting coefficients allow prioritization of parameters according to therapeutic relevance or individual patient profiles. The output of the evaluation is a continuous adherence score, complemented by a categorical classification to support intuitive interpretation.

To facilitate user engagement and clinical usability, adherence results are presented through a simplified visual feedback mechanism based on a traffic-light model. This representation enables rapid identification of high, moderate, or low adherence states and supports timely behavioral adjustments or clinical interventions. The feedback layer is designed to function both as a patient-facing motivational tool and as a clinician-facing monitoring aid.

2.5 System Scalability and Extensibility

The proposed architecture is intentionally designed to be extensible. Additional data sources, such as new wearable sensors or external health information systems, can be incorporated without altering the core evaluation logic. Similarly, therapeutic plans can be customized by modifying parameter sets, thresholds, and weights, allowing the system to support diverse clinical scenarios.

This modular approach supports future expansion toward advanced analytics, including machine learning–based personalization and predictive modeling. By separating data acquisition, processing, and evaluation layers, the system provides a robust foundation for scalable assistive digital technologies aimed at adherence monitoring in digital therapeutic applications. Figure 1 provides a conceptual overview of the system architecture and the flow of multimodal patient data across system components.

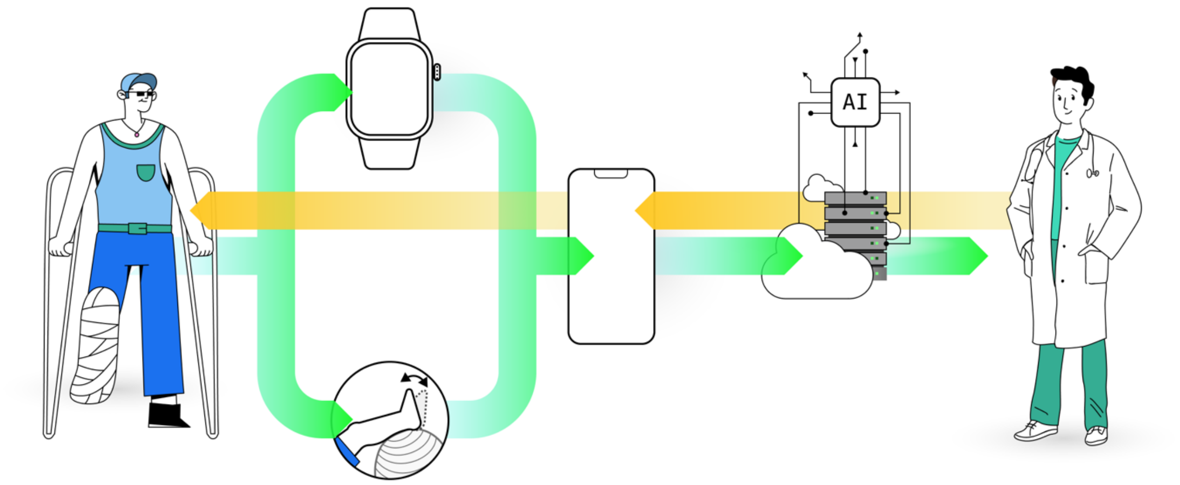

Figure 1 - Conceptual overview of the assistive digital system for adherence monitoring using multimodal patient data. Patient-generated data are continuously collected via wearable sensors and self-reporting via mobile application, processed in a cloud-based environment, and translated into interpretable feedback supporting both patient engagement and clinical oversight.

3 ALGORITHMIC FRAMEWORK FOR ADHERENCE EVALUATION

The proposed assistive digital system incorporates an algorithmic framework designed to transform heterogeneous multimodal patient data into a unified and interpretable indicator of therapeutic adherence. Given the diversity of monitored parameters and therapeutic contexts, the framework emphasizes transparency, modularity, and clinical interpretability, allowing its application across different digital therapeutic scenarios without reliance on opaque or black-box models.

3.1 Parameter Evaluation and Normalization

Each monitored parameter is first evaluated independently according to predefined behavioral or clinical thresholds derived from therapeutic recommendations, clinical guidelines, or empirical reference values. These thresholds define adherence-related categories reflecting the degree to which patient behavior aligns with the prescribed therapeutic plan. To support intuitive interpretation by both patients and healthcare professionals, a three-level traffic-light model is applied, distinguishing optimal adherence, partial adherence, and non-adherence.
Following categorical evaluation, adherence levels are transformed into normalized numerical values to enable aggregation across heterogeneous data modalities. This normalization step maps categorical states onto a bounded numerical scale between zero and one, ensuring that parameters with different units, sampling frequencies, and measurement characteristics can be compared and combined within a single evaluation framework. By preserving a direct correspondence between categorical meaning and numerical representation, the normalization process maintains interpretability while enabling quantitative analysis.

3.2 Weighted Aggregation and Adherence Scoring

To quantitatively summarize adherence across heterogeneous monitored parameters, a weighted aggregation approach is employed. Each monitored parameter i is first assigned a categorical adherence level corresponding to the traffic-light classification, where green indicates optimal adherence, yellow partial adherence, and red non-adherence. These categorical levels are encoded as discrete values $x_i \in \{0,1,2\}$.

To ensure normalization and comparability across parameters, the categorical values are transformed into normalized adherence scores s_i according to:

$$s_i = \frac{x_i}{2}$$

where $s_i \in [0,1]$ represents the normalized adherence contribution of parameter i.
Each parameter is assigned a weighting coefficient w_i reflecting its relative importance within the therapeutic plan. The daily adherence score A_{day} is then computed as a weighted average of normalized parameter values:

$$A_{\text{day}} = \frac{\sum_{i=1}^{k} w_i \cdot s_i}{\sum_{i=1}^{k} w_i}$$

where k denotes the total number of monitored parameters. The resulting adherence score is bounded within the interval [0,1], enabling intuitive interpretation and longitudinal comparison.
This formulation ensures flexibility, as both the set of monitored parameters and their corresponding weights can be adapted to different therapeutic contexts without altering the core computational logic.

3.3 Adherence Classification and Clinical Interpretability

For practical deployment in assistive digital systems, the continuous adherence score is further translated into categorical adherence states using predefined decision thresholds. This classification yields three adherence levels corresponding to high, moderate, and low adherence, enabling rapid interpretation and actionable feedback without requiring numerical expertise.
The combination of continuous scoring and categorical classification balances analytical precision with clinical usability. While continuous scores support detailed monitoring, trend analysis, and research applications, categorical adherence states facilitate real-time feedback, patient motivation, and clinical decision support. This dual representation enhances the applicability of the framework across patient-facing and clinician-facing interfaces and supports timely identification of adherence-related risks within digital therapeutic pathways.

4 VALIDATION AND PILOT STUDY

The proposed assistive digital architecture and adherence evaluation framework were implemented and preliminarily validated through application in a pilot observational study. The primary objective of this validation was to assess the technical feasibility, reliability of multimodal data integration, and practical applicability of the system in real-world conditions, rather than to evaluate clinical efficacy.
The pilot study involved longitudinal collection of multimodal patient-generated data, including wearable-derived physiological parameters, daily self-reported behavioral inputs, and selected clinically relevant measurements. Data were collected over multiple consecutive days, enabling repeated daily adherence evaluation within naturalistic settings. This design allowed verification of system robustness under realistic usage patterns and confirmed the feasibility of continuous adherence monitoring outside controlled clinical environments.
The system successfully synchronized heterogeneous data streams characterized by different temporal resolutions, formats, and acquisition mechanisms into a unified daily evaluation window. Data preprocessing, normalization, and weighted aggregation procedures were applied consistently across all observation periods, resulting in stable and interpretable daily

adherence scores. No significant data loss, synchronization failures, or system-level inconsistencies were observed during the pilot phase, indicating reliable operation of the data acquisition and processing pipeline.

In addition to technical validation, user interaction with the system was assessed to evaluate usability and acceptance. Participants demonstrated high compliance with daily self-reporting and minimal interaction burden, supporting the practicality of the assistive digital approach. The traffic-light–based adherence feedback was perceived as intuitive and easily interpretable, enabling meaningful user engagement without requiring detailed technical explanations.

Overall, the pilot application confirms the feasibility of the proposed assistive digital technologies for adherence monitoring based on multimodal patient data. While the pilot study was not designed to assess long-term clinical effectiveness within the scope of this paper, it provides a robust proof of concept demonstrating reliable system operation in real-world conditions. Detailed quantitative and clinical outcomes of the pilot study are reported in a separate manuscript that is currently under peer review. The present paper therefore focuses on the technological architecture and algorithmic framework enabling adherence monitoring, rather than on clinical outcome evaluation.

5 DISCUSSION

This paper presented an assistive digital framework for adherence monitoring based on multimodal patient-generated data, with an emphasis on system architecture and algorithmic design rather than clinical outcome evaluation. The proposed approach addresses a key challenge in digital therapeutics: transforming heterogeneous data streams into interpretable and actionable adherence indicators that can support both patients and healthcare professionals in real-world settings.

A central contribution of this work lies in the design of a transparent and modular adherence evaluation framework. Unlike black-box approaches that rely on complex predictive models, the proposed method prioritizes interpretability by combining categorical evaluation, normalization, and weighted aggregation. This design choice enhances clinical acceptability and facilitates integration into patient-facing and clinician-facing digital tools, where clear and understandable feedback is essential for sustained engagement and trust [9,10,11].

The use of multimodal patient-generated data represents a significant advantage over traditional adherence assessment methods [3]. By integrating objective wearable-derived parameters with subjective self-reported inputs and contextual clinical measurements, the system captures multiple dimensions of patient behavior that are often overlooked in single-source approaches [12]. This multimodal perspective enables more robust adherence monitoring and provides a foundation for identifying behavioral patterns and adherence-related risks that may not be detectable through isolated measurements.

From a technological perspective, the proposed system demonstrates the feasibility of continuous adherence monitoring outside controlled clinical environments. The pilot study confirmed reliable data acquisition, synchronization, and processing under naturalistic usage conditions. High user compliance and positive acceptance of the feedback mechanism further support the practicality of assistive digital technologies for long-term adherence monitoring. Importantly, the traffic-light–based feedback model offers an intuitive balance between simplicity and informational value, supporting timely behavioral adjustments without overwhelming users.

Several limitations of the presented work should be acknowledged. The pilot validation was conducted on a limited sample and over a relatively short observation period, restricting generalizability and precluding conclusions regarding long-term clinical effectiveness. Additionally, parameter thresholds and weighting schemes were defined based on current therapeutic assumptions and may require further refinement and personalization. The

framework is intentionally flexible to accommodate such adaptations, but systematic validation across diverse clinical contexts remains necessary.
Future research should focus on extending the proposed framework through larger-scale studies and longer monitoring periods to evaluate its impact on adherence behavior and clinical outcomes. The modular architecture also enables integration of advanced analytical methods, such as adaptive weighting strategies or machine learning–based personalization, while preserving the interpretability of core adherence indicators. Moreover, further exploration of bidirectional feedback mechanisms may enhance patient engagement and support personalized digital therapeutic pathways [13,14].
Overall, this work contributes to the growing field of assistive digital technologies by demonstrating a practical and interpretable approach to adherence monitoring using multimodal patient data. By bridging wearable sensing, mobile self-reporting, and algorithmic evaluation within a unified framework, the proposed system offers a scalable foundation for future digital therapeutic applications and adherence-focused interventions.

6 CONCLUSION

This paper introduced an assistive digital framework for adherence monitoring based on multimodal patient-generated data, emphasizing system architecture and an interpretable algorithmic evaluation approach. By integrating wearable data, mobile self-reports, and contextual clinical information, the proposed system enables continuous adherence assessment in real-world settings.
The presented framework provides a transparent and flexible method for transforming heterogeneous data into a unified adherence indicator that is understandable to both patients and healthcare professionals. Pilot study confirmed the technical feasibility and practical usability of the approach. Overall, the proposed solution represents a scalable foundation for future adherence-focused digital therapeutic applications.

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MIKROBIOLOGICKÉ RIZIKOVÉ FAKTORY PREDČASNÉHO PÔRODU: SÚVISLOSŤ MEDZI KOLONIZÁCIOU MATKY VYBRANÝMI DRUHMI BAKTÉRIÍ A HÚB A SKRÁTENÍM GRAVIDITY

MICROBIOLOGICAL RISK FACTORS FOR PRETERM BIRTH: THE RELATIONSHIP BETWEEN COLONIZATION OF THE MOTHER BY SELECTED SPECIES OF BACTERIA AND FUNGI AND SHORTENING OF PREGNANCY

Monika Bertok Fečová, Alžbeta Kaiglová, Róbert Hlávek, Marie Korabečná and Soňa Kucharíková

Abstrakt

Predčasný pôrod predstavuje závažný celosvetový zdravotný problém s multifaktoriálnou etiológiou, v ktorej zohrávajú úlohu genetické, imunologické, hormonálne aj environmentálne faktory. Jedným z kľúčových aspektov, ktorý sa v posledných rokoch dostáva do popredia, je mikrobiálny ekosystém maternice a pošvy. Fyziologická vaginálna mikrobiota, najmä tá dominovaná laktobacilmi, plní dôležitú ochrannú funkciu udržiavaním optimálneho pH a zabraňovaním premnoženiu patogénnych baktérií či kvasiniek. Narušenie tejto krehkej rovnováhy môže viesť k vzniku infekcií, ktoré sú často sprevádzané lokálnymi zápalovými reakciami a môžu následne zvýšiť riziko predčasného pôrodu. Medzi najčastejšie mikroorganizmy spájané s týmto rizikom patria *Ureaplasma urealyticum, Mycoplasma hominis, Gardnerella vaginalis* a vybrané druhy rodu *Candida* spp. V tomto prehľadovom článku sa zameriavame na ich úlohu a možné mechanizmy, ktorými môžu prispievať k rozvoju predčasného pôrodu.

Kľúčové slová: *predčasný pôrod, vaginálna mikroflóra, baktérie, Candida spp.*

Abstract

Premature birth is a serious health problem in all over the world and its etiology is multifactorial. One of the important aspects is the microbial ecosystem in the uterus, which can act an indispensable function in regulating inflammatory processes and a complete pregnancy homeostasis. The physiological vaginal microbiota prevailed by lactobacili ensure a protective mechanism by keeping an optimal acid pH and preventing the multiplication of pathogenic bacteria and fungi. If this balance is disturbed it can cause the risk of infection leading to an inflammatory reaction in the uterus. The most common pathogens that cause premature birth are*: Ureaplasma urealyticum, Mycoplasma hominis, Gardnerella vaginalis,* as well as some species of the genus *Candida* spp. In this review, we focus on their role and potential mechanisms by which they may contribute to the development of preterm birth.

Key words: *preterm birth, vaginal microflora, bacteria, Candida spp.*

1 ÚVOD DO PROBLEMATIKY

Zdravotný stav tehotných žien je kľúčovou prioritou verejného zdravotníctva, pretože neovplyvňuje len matku, ale má zásadný dopad aj na zdravie dieťaťa. Komplikácie spojené s tehotenstvom tak signifikantne navyšujú celkové náklady na zdravotnú starostlivosť. V celosvetovom meradle sa v roku 2020 predčasne narodilo 13,4 mil. detí, čo predstavuje viac

ako jedno z desiatich pôrodov. V roku 2019 zomrelo na komplikácie súvisiace s predčasným pôrodom približne 900 000 novorodencov, čo predstavuje jednu z hlavných príčin úmrtí u detí mladších ako päť rokov (Gerede *et al*., 2024). Podľa systematického prehľadu publikovaného v časopise *The Lancet* z roku 2023 existujú zásadné globálne nerovnosti v prežívaní extrémne predčasne narodených detí (gestačný vek < 28 týždňov). V krajinách s nízkymi príjmami prežije menej než 10 % týchto novorodencov, zatiaľ čo v ekonomicky vyspelých krajinách ich miera prežitia presahuje 90 % (Ohuma *et al*., 2023). V USA a Spojenom kráľovstve sa u žien klasifikovaných ako ženy afrického pôvodu, Afroameričanky a Afro-Karibičanky neustále uvádza vyššie riziko predčasného pôrodu: miera predčasného pôrodu sa u žien afrického pôvodu pohybuje v rozmedzí 16 – 18 % v porovnaní s 5 – 9 % u žien europoidnej rasy/bielej pleti. Ženy afrického pôvodu majú tiež trikrát až štyrikrát vyššiu pravdepodobnosť predčasného pôrodu ako ženy z iných rasových alebo etnických skupín (Goldenberg *et al*., 2008). Viaceré štúdie potvrdili signifikantný vzťah medzi predčasným pôrodom a dlhodobými neurovývinovými následkami, keďže diagnostické hodnotenie odhalilo zvýšený výskyt porúch pozornosti, emočných porúch a porúch autistického spektra u detí narodených pred ukončeným 36. týždňom gestácie (Linsell *et al*., 2019).
Ako kľúčový etiopatogenetický faktor sa uvádza predčasné prasknutie plodových obalov (*Preterm Prelabor Rupture of Membranes – PPROM* a *Prelabor Rupture of Membranes – PROM*), ktoré je zodpovedné za iniciáciu 20 – 30 % predčasných pôrodov. Z tohto dôvodu je esenciálne plne pochopiť význam zloženia vaginálneho mikrobiómu, ktorý môže slúžiť ako prediktor PPROM a následného predčasného pôrodu. Abnormálna vaginálna mikrobiota je považovaná za závažný rizikový faktor, pretože endogénne baktérie v pošve môžu vzostupnou cestou infikovať plodové obaly, iniciovať zápalovú reakciu a vyústiť do PPROM (Jayaprakash *et al*., 2016). PROM alebo PPROM sa môžu vyskytnúť z rôznych dôvodov, vrátane normálneho fyziologického oslabenia fetálnych membrán v termíne, zvýšeného intraamniotického tlaku, intraamniovej infekcie alebo zápalu, oxidačného stresu a abnormalít v schopnosti fetálnych membrán remodelovať sa. Zápal aktivuje proteázy, ktoré degradujú kolagén vo fetálnych membránach, oslabujú ich a robia ich náchylnými na prasknutie (Delorme *et al*., 2021). Intraamniotické infekcie a zápal (IAI) sú najčastejšie spôsobené širokým spektrom patogénnych mikroorganizmov. Medzi najvýznamnejšie baktérie a mykotické agens patria *Mycoplasma* spp., *Ureaplasma* spp., *Bacteroides* spp., skupina B *Streptococcus* spp., *Escherichia coli*, *Enterococcus faecalis*, *Klebsiella pneumoniae*, *Fusobacterium nucleatum*, *Gardnerella vaginalis* a *Candida albicans*. Navyše etiológiu IAI môžu zahŕňať aj vírusy ako sú cytomegalovírus, vírus herpes simplex typu 1 a 2 (HSV-1, HSV-2) a vírus Zika (Šket *et al*., 2021). Prítomnosť patogénov, ako sú *Trichomonas vaginalis*, *Neisseria gonorrhoeae* a *Chlamydia trachomatis*, ako aj ochorení typu bakteriálna vaginóza a aeróbna vaginitída, vedie k aktivácii imunitného systému. To vedie k následnému spusteniu kaskádovitej zápalovej reakcie. Takáto reakcia má za následok vznik oxidačného stresu a prostredníctvom imunitných buniek dochádza k regulácii látok, ako sú prostaglandíny a metaloproteinázy. Tieto procesy následne prispievajú k zníženiu regulácie proteázových inhibítorov a indukcii apoptózy. Tým sa vytvára prostredie, ktoré postupne oslabuje tkanivá reprodukčného traktu, a preto môže v závere dôjsť k remodelácii krčka maternice a narušeniu membránovej architektúry (Ahmadi *et al*., 2024). V posledých rokoch sa infekcie maternice objavili ako jedna z príčin predčasného pôrodu. Odhaduje sa, že viac ako dve tretiny predčasných pôrodov je spôsobených vnútromaternicovou infekciou. Publikované údaje naznačujú, že infekčné procesy a perzistentná chronická zápalová odpoveď môžu byť významnými príčinami predčasného pôrodu (Kurian *et al*., 2022, Zhou *et al*., 2010, Daskalakis et al., 2023).

1.1 Úloha vaginálnej mikroflóry a patogénov v patogenéze predčasného pôrodu

Mikrobiota predstavuje kľúčový prvok v patogenéze, pretože zdôrazňuje komplexný význam mikroorganizmov kolonizujúcich ľudské telo v stavoch zdravia i choroby (Marchesi *et al.*, 2015).

Veľká časť predčasných pôrodov (viac ako 50 %) je iniciovaná ascendentnou infekciou baktériami pochádzajúcimi z vaginálneho prostredia, ktoré musia prejsť cervikálnym kanálom. Napriek tomu, že faktory ovplyvňujúce náchylnosť na tieto infekcie nie sú plne objasnené, existujú dôkazy naznačujúce, že matricová metaloproteináza 8 (MMP-8) zohráva kľúčovú úlohu v narušení integrity krčka maternice (cervixu) (Witkin *et al.*, 2013). V kontexte tehotenstva je mimoriadne dôležitá analýza špecifických spoločenstiev mikroorganizmov v dolnom genitálnom trakte. Výskum publikovaný v roku 2022 v časopise Frontiers in Microbiology poukázal na to, že kombinácia údajov o zložení vaginálneho mikrobiómu, dĺžke krčka maternice a počte leukocytov môže slúžiť ako spoľahlivý model, ktorý by predikoval riziko predčasného pôrodu (Park *et al.*, 2022). Následná štúdia z roku 2024, ktorá skúmala súvislosť medzi zmenami vaginálnej mikrobioty *Lactobacillus* a rizikom predčasného pôrodu od roku 2010 do roku 2023 potvrdila, že pokles dominancie laktobacilov vedie k zvýšenej mikrobiálnej diverzite, čo sa spája s vyšším výskytom komplikácií počas tehotenstva (Zhou *et al.*, 2024). Dominancia druhov *Lactobacillus* spp. vo vaginálnom mikrobióme je optimálna a silne spojená s gynekologickým a pôrodníckym zdravím (Mahajan *et al.*, 2022, Ravel *et al.*, 2011). Medzi najčastejšie izolované mikroorganizmy rodu *Lactobacillus* zo zdravej ľudskej vagíny patria: *Lactobacillus crispatus*, *Lactobacillus gasseri*, *Lactobacillus jensenii* (Chee *et al.*, 2020, Balla *et al*., 2024). U pacientiek, ktoré trpia ochorením bakteriálna vaginóza, sú *Lactobacillus* spp. najčastejšie nahradené anaeróbnymi baktériami ako sú *Atopobium vaginae*, *Mobiluncus* spp., *Gardnerella* spp. alebo *Prevotella* spp. Tieto baktérie produkujú kadaverózne amíny, putrescín, sukcinát a acetát, čo vedie k zmene chemického zloženia sekrétov vo vagíne a tiež k zmene pH (Qi *et al.*, 2023). Vaginálne infekcie zahŕňajú celý rad vírusových, plesňových a bakteriálnych patogénov, ktoré môžu infikovať maternicu, plodovú vodu a plod práve z dolného genitálneho traktu. Baktérie, ako sú *streptokoky* skupiny B, *T. vaginalis* a bakteriálne organizmy spojené s vaginózou sú najčastejšími pôvodcami týchto infekcií (Marti *et al.*, 2024).

Mikrobiálne prostredie vo vagíne je veľmi zložité. Baktérie a huby sa navzájom ovplyvňujú – niekedy si konkurujú, inokedy spolupracujú – a často vytvárajú spoločné biofilmy. Takéto biofilmy sa ťažšie odstraňujú a môžu vyvolať silnejšiu miestnu zápalovú reakciu. Zároveň komplikujú diagnostiku, pretože bežné kultivačné metódy nemusia zachytiť všetky mikroorganizmy a môžu znižovať účinnosť lokálnej liečby. Je preto dôležité pochopiť zloženie tohto prostredia, pretože narušenie rovnováhy a prítomnosť určitých kmeňov v týchto komplexných štruktúrach predstavuje významné riziko pre tehotenstvo, najmä predčasný pôrod (Ferrante *et al.*, 2025, Gudnadottir *et al.*, 2022, Li *et al*., 2024, Wang *et al.*, 2025).

V nasledujúcom texte sa venujeme jednotlivým baktériám a kvasinkám, ktoré zohrávajú signifikantnú úlohu pri vzniku predčasného pôrodu.

1.2 *Trichomonas vaginalis*

Trichomonas vaginalis je bičíkatý prvok (protozoon), ktorý spôsobuje trichomonózu, najčastejšiu nevírusovú sexuálne prenosnú infekciu (STI). *T. vaginalis* priľne k epiteliálnym bunkám vagíny a uretry, čím iniciuje infekciu prejavujúcu sa symptómami, ako sú dysúria, pálenie genitálií a purulentný výtok (Shiratori *et al.*, 2023). Jednou z výziev pri odhadovaní miery infekcií, diagnostike a konečnej liečbe *T. vaginalis* je vysoký podiel asymptomatických infekcií. Keď sa príznaky vyskytnú, sú vo všeobecnosti mierne, prejavujú sa ako celkové podráždenie alebo aj ako opuch urogenitálneho traktu a okolitých tkanív. Infekcie však môžu

viesť k takým závažným komplikáciám, ako je erózia krčka maternice či predčasný pôrod počas tehotenstva (Ryan *et al.,* 2011). Globálna prevalencia *T. vaginalis* je vyššia ako prevalencia *Ch. trachomatis, N. gonorrhoeae* a *T. pallidum* dohromady. V USA bola prevalencia *T. vaginalis* v nedávnej populačnej štúdii s použitím testov na amplifikáciu nukleových kyselín v moči 1,8 % u žien a 0,5 % u mužov (Van Gerwen *et al,.* 2021). Odhaduje sa, že každý rok sa v USA vyskytne 3,1 milióna nových infekcií. Afroameričania sú obzvlášť ohrození s > 4-krát vyššou prevalenciou infekcie ako iné rasové skupiny, čo predstavuje dramatický zdravotný rozdiel (Kissinger *et al.,* 2022). Systematický prehľad v Etiópii zahŕňal desať relevantných štúdií s celkovým počtom 2 979 účastníkov. Celková súhrnná prevalencia infekcie *T. vaginalis* v Etiópii bola stanovená na 9,62 % (95% IS: 7,55 – 11,88). Analýza podskupín následne ukázala, že agregovaná prevalencia *T. vaginalis* dosiahla 6,68 % u tehotných žien a 12,86 % v ostatných sledovaných kohortách, v uvedenom poradí. Odhadovaná prevalencia u juhoafrických žien vo veku 15 – 24 rokov sa pohybuje od 3,1 % do 20 %. Prevalencia infekcie *T. vaginalis* u tehotných žien sa pohybuje od 17 % do 20 % v Afrike, 16 % až 53 % v USA a 0,8 % v Ázii (Mabaso *et al.,* 2021). Od vydania usmernení z roku 2015 boli publikované 2 metaanalýzy, ktoré poskytujú väčšie dôkazy o tom, že *T. vaginalis* je spojený s nepriaznivými výsledkami pôrodu, ako je nízka pôrodná hmotnosť, predčasný pôrod a predčasné prasknutie membrán (Silver *et al.,* 2014, Van Gerwen *et al.,* 2021)**.**
T. vaginalis predstavuje najčastejšie sa vyskytujúci parazitárny patogén sexuálne prenosných infekcií s globálnou prevalenciou, ktorý indukuje významnú reprodukčnú morbiditu u žien a zároveň zvyšuje riziko transmisie HIV. Akumulujúce sa epidemiologické a klinické dôkazy poukazujú na jeho asociáciu s nepriaznivými pôrodníckymi výsledkami, vrátane predčasného pôrodu a nízkej pôrodnej hmotnosti novorodencov. V poslednom období došlo k revízii terapeutických odporúčaní. Randomizované kontrolované klinické štúdie preukázali, že dlhodobo preferovaná jednorazová perorálna dávka 2 g metronidazolu vykazuje nižšiu eradikačnú účinnosť v porovnaní so 7-dňovou terapiou (500 mg dvakrát denne), čo viedlo k zmene liečebnej schémy u žien. Diagnostické možnosti sa významne rozšírili zavedením vysoko citlivých a špecifických *point-of-care testov*, vrátane molekulárnych metód založených na amplifikácii nukleových kyselín, ktoré umožňujú presnú detekciu *T. vaginalis* predovšetkým u žien, ale postupne aj u mužov. Epidemiologický význam asymptomatických infekcií u oboch pohlaví zostáva nedostatočne objasnený, čo podčiarkuje potrebu ďalších prospektívnych štúdií zameraných na ich dopad na reprodukčné zdravie a optimálne stratégie skríningu (Kissinger *et al.,* 2022).

1.3 Streptokok skupiny B

Streptococcus skupiny B (GBS) patrí medzi Gram-pozitívne baktérie, známy aj ako *Streptococcus agalactiae*. Hoci GBS je najznámejší ako hlavná príčina závažných infekcií u novorodencov (neonatálna sepsa a meningitída), jeho prítomnosť v pôrodných cestách matky je považovaná aj za rizikový faktor, ktorý môže viesť ku skráteniu gravidity. GBS asymptomaticky kolonizuje gastrointestinálnu a vaginálnu sliznicu jedného z piatich jedincov na celom svete (Mejia *et al.,* 2023). Výskyt ochorenia je 3 až 10-krát vyšší u predčasne narodených detí v porovnaní s donosenými deťmi. V prípade PROM (≥18 hodín) a chorioamnionitídy sa riziko skorého nástupu neonatálnej sepsy zvyšuje desaťnásobne. Miera kolonizácie rektálneho vaginálneho GBS bola u matiek v USA hlásená v rozmedzí 15 - 40 % (Satar *et al.,*2018). Zatiaľ čo na Slovensku bola zistená v rozsahu 11 - 35 % (Križko jr, *et al.,* 2019). V mnohých krajinách, vrátane USA, Kanady, Nového Zélandu a Austrálie, sa počas gravidity rutinne realizuje univerzálny skríning kolonizácie GBS prostredníctvom vaginálno-rektálnych výterov. Naopak, v niektorých krajinách sa univerzálny skríning v súčasnosti neodporúča; kolonizácia GBS sa tam diagnostikuje najmä prostredníctvom mikrobiologickej analýzy vzoriek odobratých pri prítomnosti klinických príznakov, ako je patologický vaginálny výtok alebo podozrenie na PROM (Stephens, *et al.*, 2023). Na Slovensku sa odporúča skríning GBS u tehotných žien medzi 35. – 37. týždňom gravidity, pričom pozitívny nález je indikáciou na intrapartálnu antibiotickú profylaxiu. Tento postup je odporúčaný odbornými usmerneniami (Krištúfková, *et al.*, 2021).

Štúdia autorov Fiorella *et al.*, z roku 2017 mala za cieľ posúdiť, či existuje spojenie medzi materskou kolonizáciou GBS počas tehotenstva a rizikového predčasného pôrodu a poskytnúť komplexný prehľad pre odhad globálneho rizika GBS v tehotenstve. Vykonaný bol systematický prehľad a metaanalýza 45 štúdií z rôznych krajín, ktoré zahŕňajú štúdie typu kohorta, prípad-kontrola a prierezové štúdie. Analyzovali údaje o kolonizácii GBS z vaginálnych, cervikálnych a rektálnych vzoriek a ich vzťah k predčasnému pôrodu (pred 37. týždňom tehotenstva). Výsledky boli podrobené analýzam, ktoré zohľadňovali rôzne faktory, ako sú metódy merania, čas odberu vzoriek, použitie antibiotík a spôsob určenia gestačného veku. Autori zistili, že kolonizácia GBS u matky je spojená s rizikom predčasného pôrodu. V kohortových a prierezových štúdiách bol pomer rizika (RR) pri kolonizácii GBS 1,21 (95 % interval spoľahlivosti [CI] 0,99–1,48; P = 0,061), zatiaľ čo v kontrolných štúdií bol pomer 1,85 (95 % CI 1,24–2,077). Navyše, v kohortových štúdiách bola predčasnosť pôrodu výrazne spojená s bakteriúriou spôsobenou GBS (RR 1,98; 95% CI 1,45–2,69; P < 0,001), čo podporuje hypotézu o úlohe ascendentnej infekcie v patogenéze predčasného pôrodu (Fiorella, *et al.*, 2017).

GBS je v pôrodníckej praxi identifikovaný ako významný problém už niekoľko desaťročí, pričom nežiaduce účinky spojené s jeho liečbou sa vyskytujú len zriedkavo. Napriek tomu pretrvávajú viaceré zásadné výzvy, ktoré si vyžadujú ďalší výskum. Medzi najdôležitejšie patrí absencia metodík umožňujúcich rýchlu detekciu a stanovenie antibiotickej citlivosti, vysoký počet žien potrebných na intrapartálnu antibiotickú profylaxiu (IAP) na prevenciu jediného prípadu neonatálnej sepsy, nejasný klinický význam predpôrodnej invázie maternice GBS, ako aj možnosť, že tento mikroorganizmus môže byť skrytým etiologickým faktorom pri komplikáciách, ak je prítomný v koncentráciách pod hranicou detekcie bežne používaných diagnostických metód. Ďalšou zásadnou výzvou je preukázanie klinickej účinnosti vakcinácie (Stephens, *et al.*, 2023).

1.4 *Ureaplasma* spp. a *Mycoplasma* spp.

Ureaplasma urealyticum a zástupcovia rodu *Mycoplasma* patria do čeľade *Mycoplasmataceae,* ktorá je charakteristická absenciou bunkovej steny a prítomnosťou lipoproteínov v bunkovej membráne. Mykoplazmatický lipoproteín, ktorý sa nachádza v bunkovej membráne má preukázateľnú schopnosť indukovať produkciu rôznych prozápalových cytokínov, ako sú TNF-α, IL-1, IL-6 a IL-8. Navyše, z vrodených imunitných buniek vrátane makrofágov je *U. urealyticum* schopná produkovať ureázu, zatiaľ čo väčšina druhov rodu *Mycoplasma* túto schopnosť nemá (Harada, *et al.*, 2008). Rod *Ureaplasma* spp. sa delí na dva biotypy: *U. urealyticum* a *Ureaplasma parvum*, pričom tá má dodnes známych 14 sérotypov. Infekcia *Ureaplasma* spp. sa deteguje kultivačne alebo metódou polymerázovej reťazovej reakcie (PCR) (Sprong *et al.,* 2020). *Ureaplasma* spp. je častým pôvodcom spojeným s nepriaznivými výsledkami tehotenstva, akými sú neplodnosť, narodenie mŕtveho plodu a predčasný pôrod, ktorý je navyše veľmi často spojený s komplikáciami, ako je novorodenecký zápal pľúc. Prítomnosť baktérií rodu *Ureaplasma* spp. v amniovej dutine je často detegovaná u žien, ktoré rodili predčasným pôrodom alebo mali predčasné prasknutie plodových obalov. Tento nález podporuje hypotézu, že infekcia spôsobená týmito mikroorganizmami môže významne prispievať k nepriaznivému priebehu tehotenstva. Napriek tomu, že kolonizácia *Ureaplasma* spp. je u tehotných žien bežná, mechanizmus, prečo v určitých prípadoch vedie k ascendentnej infekcii, zatiaľ nie je úplne objasnený.

Predchádzajúce výskumy poukazujú na väzbu medzi vaginálnou kolonizáciou *U. parvum*, v porovnaní s *U. urealyticum*, a zvýšeným rizikom predčasného pôrodu. Vzhľadom na vysoký výskyt kolonizácie počas tehotenstva je však nevyhnutné identifikovať ďalšie rizikové faktory, ktoré umožnia selekciu žien, u ktorých by terapia mohla zlepšiť výsledky tehotenstva (Rittenschober- Böhm *et al.*, 2019).
Štúdia z roku 2000 sa zamerala na klinické dôsledky detekcie *U. urealyticum* v plodovej vode pomocou PCR u pacientiek s predčasným prasknutím plodových obalov (Yoon *et al*., 2000). Do výskumu bolo zaradených 154 žien, u ktorých sa vykonala amniocentéza a následná kultivácia plodovej vody na detekciu aeróbnych, anaeróbnych baktérií a mykoplazmy. Paralelne bola prevedená PCR so špecifickými primermi na prítomnosť *U. urealyticum*. Pacientky boli rozdelené do troch skupín podľa výsledkov kultivácie a PCR: negatívna kultúra a negatívna PCR, negatívna kultúra a pozitívna PCR, a pozitívna kultúra bez ohľadu na výsledok PCR. Výsledky ukázali, že *U. urealyticum* bola detegovaná pomocou PCR u 28 % žien, zatiaľ čo kultivačne len u 16 %, čo znamená, že približne 40 % prípadov mikrobiálnej invázie plodovej vody nebolo touto technikou stanovených. Pacientky s pozitívnou PCR, ale negatívnou kultúrou, mali signifikantne kratší interval od amniocentézy do pôrodu, vyšší počet leukocytov a koncentráciu IL-6 v plodovej vode a zároveň vyššiu mieru neonatálnej morbidity v porovnaní so skupinou s negatívnou kultúrou aj PCR. Neboli však pozorované významné rozdiely v perinatálnych výsledkoch medzi skupinou s pozitívnou PCR a negatívnou kultúrou a skupinou s pozitívnou kultúrou. Záver štúdie poukazuje na to, že molekulárne mikrobiologické techniky, ako je PCR, zvyšujú detekciu infekcie u pacientiek s pôrodníckymi komplikáciami, pričom pozitívna PCR aj pri negatívnej kultúre predstavuje riziko nepriaznivých klinických výsledkov (Yoon *et al*., 2000).
Mycoplasma genitalium je patogén pohlavne prenosných chorôb a nezávislý rizikový faktor pre cervicitídu a zápalové ochorenie panvy u žien. Klinické príznaky spôsobené infekciou *M. genitalium* sú mierne a ľahko sa ignorujú. Ak sa *M. genitalium* nelieči, môže rásť pozdĺž reprodukčného traktu a spôsobiť zápalové ochorenie vajíčkovodov, čo vedie k neplodnosti a mimomaternicovému tehotenstvu. Okrem toho môže infekcia *M. genitalium* v neskorom tehotenstve zvýšiť výskyt predčasného pôrodu (Korich *et al.*, 2020). Infekcie *M. genitalium* sú často sprevádzané koinfekciou s inými pohlavne prenosnými patogénmi (*Ch. trachomatis*, *N. gonorrhoeae* a *T. vaginalis*) a vírusovými infekciami (vírus ľudskej papilómie a vírus ľudskej imunodeficiencie). Nedávna štúdia naznačila, že *M. genitalium* hrá úlohu vo vývoji nádorov v ženskom reprodukčnom systéme (Yu *et al.*, 2023).
Globálne štúdie potvrdzujú vysokú prevalenciu týchto patogénov: napríklad v Európe a USA je kolonizácia *Ureaplasma* spp. udávaná u 70–80 % žien, zatiaľ čo v Ázii a Afrike sa pohybuje medzi 40–60 %. *Mycoplasma hominis* sa vyskytuje u 10–20 % žien, pričom často koexistuje s ureaplazmami. *Mycoplasma genitalium* je menej častá (1–4 %), ale klinicky významná pre svoju asociáciu s reprodukčnými komplikáciami. V gravidite sa tieto mikroorganizmy spájajú s predčasným prasknutím plodových obalov, predčasným pôrodom, intrauterinnou infekciou plodu a chorioamnionitídou (Ramaloko *et al*., 2025). Terapeutický prístup k týmto infekciám je komplikovaný vysokou a rastúcou antimikróbnou rezistenciou voči dostupným antibiotikám. Makrolidy (azitromycín, klaritromycín, erytromycín) predstavujú prvú líniu pri terapii, avšak rezistencia voči nim dosahuje v prípade *Mycoplasma* spp. až 59 % a v prípade *Ureaplasma* spp. približne 19 % (Ramaloko *et al*., 2025). Fluorochinolóny (moxifloxacín, levofloxacín, ciprofloxacín) sú druhou líniou, no rezistencia je taktiež vysoká – 39 % u *Mycoplasma* spp. a až 66 % u *Ureaplasma* spp. (Ramaloko *et al*., 2025). Tetracyklíny (doxycyklín, minocyklín) zostávajú relatívne účinné, s rezistenciou pod 10 % u oboch patogénov, čo ich radí medzi relatívne spoľahlivé možnosti (Ramaloko *et al*., 2025). Hrozbu pre ich budúcu efektívnosť však predstavuje horizontálne získaný

gén *tet(M)*, ktorý bráni tetracyklínom v inhibícii ribozómov a jeho výskyt sa postupne šíri medzi populáciami *Mycoplasma* a *Ureaplasma* (Ramaloko *et al*., 2025, Gedefie *et al*., 2025). Štúdia Przybylski et al. (2024) publikovaná v *Ginekologia Polska* analyzovala vplyv infekcií genitálneho traktu baktériami *Ureaplasma* a *Mycoplasma* na riziko predčasného pôrodu (Przybylski *et al*. 2024). Retrospektívne boli hodnotené údaje od 201 tehotných žien hospitalizovaných v Poznani v rokoch 2019–2022, u ktorých sa odoberali cervikálne stery na prítomnosť atypických baktérií. Výsledky ukázali, že výskyt predčasného pôrodu bol vyšší u pacientiek s infekciou (31,1 %) v porovnaní s neinfikovanými (20 %), pričom predčasné prasknutie plodových obalov sa vyskytlo u 40 % ureaplazma-pozitívnych žien oproti 20 % bez infekcie. Monoinfekcia *Ureaplasma/Mycoplasma* bola spojená s vyšším rizikom predčasného pôrodu než koinfekcia s inými baktériami. Antibiotická liečba nepreukázala významný rozdiel vo výsledkoch medzi liečenými a neliečenými pacientkami. Autori uzatvárajú, že infekcie zapríčinené *Ureaplasma* spp. a *Mycoplasma* spp. predstavujú významný rizikový faktor pre predčasný pôrod a PPROM. Účinnosť antibiotickej terapie si v prípade týchto infekcií vyžaduje ďalšie skúmanie (Przybylski *et al*. 2024).

1.5 *Candida* spp.

Rod *Candida* predstavuje kvasinky, ktoré bežne kolonizujú vaginálnu sliznicu mnohých zdravých žien. Najčastejším druhom je *C. albicans*, ale vyskytujú sa aj tzv. „*non-C. albicans Candida*“ species, ako napríklad *C. glabrata*, *C. krusei*, *C. tropicalis* a ďalšie. Kolonizácia sama o sebe nemusí spôsobovať ťažkosti, no za určitých podmienok (oslabená imunita, antibiotiká, hormonálne zmeny) môže dôjsť k premnoženiu a vzniku vulvovaginálnej kandidózy (VVC). VVC je druhou najčastejšou príčinou vaginitídy po bakteriálnej vaginóze. Až 70–75 % žien zažije aspoň jednu epizódu VVC počas života, pričom 40–50 % má recidívy. Príznaky zahŕňajú svrbenie, pálenie, výtok a diskomfort. Opakované infekcie môžu negatívne ovplyvniť kvalitu života, psychické zdravie a sexuálne fungovanie (Sustr *et al.*, 2020). Infekcie spôsobené *C. albicans* sú výsledkom viacerých faktorov, ktoré narúšajú normálnu rovnováhu vaginálnej mikrobioty a podporujú nadmerné množenie kvasiniek. Vaginálny mikrobióm predstavuje dynamický ekosystém, ktorý zohráva zásadnú úlohu pri udržiavaní vaginálneho zdravia a prevencii infekcií, akou je VVC. U zdravých žien dominuje vo vaginálnej mikrobiote rod *Lactobacillus*, ktorý zabezpečuje kyslé prostredie a produkciu antimikrobiálnych látok. Pri narušení tejto rovnováhy – poklese zastúpenia *Lactobacillus* spp. a zvýšení diverzity mikroorganizmov – vzniká stav známy ako vaginálna dysbióza, ktorý zvyšuje náchylnosť na rozvoj VVC. Výskumy preukázali, že ženy s VVC majú významne odlišné zloženie vaginálneho mikrobiómu v porovnaní so zdravými ženami, pričom dochádza k poklesu počtu Firmicutes (najmä *Lactobacillus* spp.) a nárastu Actinobacteria, Bacteroidetes a Proteobaktérií. Takto zmenené prostredie podporuje nadmerný rast kvasiniek rodu *Candida*, predovšetkým *C. albicans*, ktorá je hlavnou príčinou VVC. Navyše, v prípadoch VVC bola pozorovaná tvorba polymikrobiálnych látok medzi *Candida* spp. a ďalšími oportunistickými mikroorganizmami, čo môže viesť k zvýšenej virulencii a rezistencii na liečbu. Detailné poznanie komplexných interakcií medzi vaginálnym mikrobiómom a *Candida* spp. je preto kľúčové pre vývoj efektívnejších stratégií prevencie a terapie VVC (Faustino *et al*., 2025). Počas tehotenstva sa častejšie vyskytuje kolonizácia vagíny kvasinkami rodu *Candida*, (až 20–30 %), najmä v treťom trimestri. Tento jav sa spája so zvýšenou hladinou estrogénov v krvi a s ukladaním glykogénu a ďalších substrátov vo vaginálnom prostredí. Prítomnosť húb *Candida* môže narušiť rovnováhu vaginálnej mikroflóry tým, že znižuje počet laktobacilov a podporuje rast mikroorganizmov s prozápalovým účinkom. Napriek tomu existuje len obmedzený počet štúdií, ktoré skúmali vzťah medzi kandidózou a rizikom predčasného pôrodu (Messina *et al.*, 2024, Roberts *et al*., 2015). Podľa štúdie Messina et al. (2024) podporuje hyperestrogénne prostredie vagíny a znížená imunita počas tehotenstva

kolonizáciu *Candida* spp. na úrovni 20–30 % (s maximom v treťom trimestri), pričom dominuje *C. albicans*, nasledovaná non-albicans druhmi ako *C. glabrata* a *C. krusei*. Táto infekcia súvisí s komplikáciami u matky (vulvovaginálna kandidóza, popôrodné infekcie) i plodu (predčasné prasknutie membrán, chorioamnionitída, predčasný pôrod, vrodená kandidóza). Pri terapii týchto komplikácií sa uprednostňujú lokálne antifungálne látky (azoly, polyény), prispôsobené trimestru, citlivosti patogénu, minimálnemu riziku pre plod a rastúcej rezistencii kvasiniek voči účinnej látke v antimykotiku (Messina *et al.*, 2024).
Diagnostika vulvovaginálnej kandidózy (VVC) je v súčasnosti založená na kombinácii klinických príznakov, mikrobiologických vyšetrení a moderných molekulárnych metód. Tradičnou a stále považovanou za „zlatý štandard" je kultivačná metóda, pri ktorej sa vzorky z vaginálneho steru kultivujú na špecifických médiách (napr. CHROMagar™ Candida) a následne identifikujú pomocou technológií ako MALDI-TOF MS. Kultivačné metódy sú vysoko špecifické, avšak vyžadujú 24–48 hodín na získanie výsledku, čo môže oddialiť začiatok liečby (Lu *et al*. 2025, Wang *et al*., 2024).

2 PREVENTÍVNE OPATRENIA

Počas budúceho obdobia je nevyhnutné zintenzívniť kontrolu sexuálne prenosných infekcií prostredníctvom komplexného prístupu založeného na nasledujúcich pilieroch (Walensky et al., 2021):
Stratégická edukácia a posúdenie rizika zahŕňajú systematické zhodnotenie individuálneho rizika spojeného s pohlavne prenosnými chorobami. Na základe tohto posúdenia sa implementujú špecifické edukačné a poradenské intervencie určené pre osoby s vyššími rizikovými nákazami. Primárnym cieľom týchto aktivít sú zmeny v sexuálnom správaní s cieľom minimalizovať riziko prenosu pohlavných prenosných infekcií.
Chemoprevencia a vakcinačné stratégie. Implementácia preexpozičnej vakcinácie (PrEP) a iných preventívnych opatrení proti pohlavne prenosným infekciám, ktoré majú osvedčený preventívny účinok.
Detekcia a identifikácia infekcií majú zásadný význam pre kontrolu pohlavne prenosných ochorení. Aktívna identifikácia zahŕňa záchyt osôb s asymptomatickou infekciou, ako aj osoby s príznakmi pohlavnej prenosnej choroby. Táto identifikácia sa uskutočňuje prostredníctvom skríningu a klinického hodnotenia, čo umožňuje včasný záchyt a adekvátnu liečbu.
Diagnostika, liečba a sledovanie. Zabezpečenie rýchlej a účinnej diagnostiky pohlavných prenosných infekcií s následnou liečbou, poradenstvom a dlhodobým klinickým sledovaním infikovaných osôb.
Hodnotenie a liečba sexuálnych partnerov. Systematické hodnotenie, liečba a poradenstvo sexuálnych partnerov, osôb s diagnostikovanou pohlavnou prenosnou infekciou predstavuje kritickú zložku stratégie. Takto zameraný prístup je orientovaný na prevenciu opakovaných infekcií u pôvodne infikovaných osôb, ako aj na zabránenie ďalšiemu šíreniu infekcie v sexuálnej sieti kontaktov.

3 ZÁVER

Vaginálny mikrobióm je dôležitý pri udržiavaní vaginálneho zdravia a obrane proti patogénnym mikroorganizmom. Napriek veľkému pokroku v medicíne v prevencii úmrtnosti matiek a dojčiat v minulom storočí zostáva jedna otázka nevyriešená: prečo toľko žien rodí predčasne? Významná nová oblasť štúdií ľudského mikrobiómu začala objasňovať vplyv mikróbov (komenzálnych aj patogénnych druhov) na výsledky tehotenstva. Nedávne pokroky v sekvenovaní novej generácie a metagenomickej analýze odhalili, že materské mikrobiómy v rôznych oblastiach vrátane orálnej, vaginálnej, črevnej, cervikálnej a dokonca aj samotnej placenty riadia výsledky tehotenstva. Odborné znalosti o predčasnom pôrode sú kľúčové v prevencii a liečbe. Keďže miera predčasného pôrodu neustále rastie, gynekológovia a perinatálne sestry ako dobre informovaní klinickí odborníci majú príležitosť ponúknuť inovatívne vzdelávanie, holistické hodnotenia a komunikáciu prostredníctvom spoločných rozhodovacích modelov. Vzdelávanie tehotných žien o včasnom rozpoznávaní varovných príznakov a symptómov predčasného pôrodu umožňuje včasnú diagnostiku, intervencie a liečbu. Informovaná a kolaboratívna ošetrovateľská prax zlepšuje kvalitu klinickej starostlivosti na základe individualizovaných interakcií.

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BIOLOGICKÁ DEGRADÁCIA ZEARALENÓNU *IN VITRO*

BIOLOGICAL DEGRADATION OF ZERALENONE *IN VITRO*

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Abstrakt

Mykotoxín produkovaný hubami rodu *Fusarium* zearalenón sa často vyskytuje v krmivách pre zvieratá a v ľudských potravinách. V súčasnej dobe existujú rôzne preventívne metódy, ktorými je možné degradovať zearalenón v potravinách a krmivách. Táto práca bola zameraná na vyhodnotenie úrovne degradácie zearalenónu v koncentrácii 1 ppm pomocou bezbunkových supernatantov probiotických baktérií *Limosilactobacillus fermentum* 2I3, *Limosilactobacillus reuteri* L26, *Lactiplantibacillus plantarum* CCM 1904 a *Bacillus subtilis*. Najvyššiu mieru degradácie 1 ppm zearalenónu vykazoval bezbunkový supernatant druhu *Bacillus subtilis.* V závislosti od použitej koncentrácie (100 %, 50 % a 25 %) sa stupeň degradácie pohyboval od 4,4 % do 3,8 %. Najmenej účinný bol supernatant *L. plantarum* CCM 1904, úroveň degradácie sa pohybovala v rozpätí 0,01 % – 0,4 %.

Kľúčové slová: *degradácia, mykotoxíny, zearalenón*

Abstract

The mycotoxin produced by *Fusarium* fungi, zearalenone, is often found in animal feed and human food. Currently, there are various preventive methods that can degrade zearalenone in food and feed. This work was aimed at evaluating the level of zearalenone degradation at a concentration of 1 ppm using cell-free supernatants of the probiotic bacteria *Limosilactobacillus fermentum* 2I3, *Limosilactobacillus reuteri* L26, *Lactiplantibacillus plantarum* CCM 1904 and *Bacillus subtilis*. The highest degradation rate of 1 ppm of zearalenone was shown by the cell-free supernatant of the species *Bacillus subtilis*. Depending on the concentration used (100%, 50% and 25%), the degree of degradation ranged from 4.4% to 3.8%. The least effective was the supernatant of *L. plantarum* CCM 1904, the degradation level ranged from 0.01% to 0.4%.

Keywords: *degradation, mycotoxins, zearalenone*

1 ÚVOD

S globálnou zmenou klímy a znečistením životného prostredia sa môže zvyšovať aj riziko kontaminácie potravín a plodín mikroskopickými vláknitými hubami. Kontaminácia krmív a potravín mikromycétami a ich sekundárnymi metabolitmi (mykotoxínmi) sa stáva globálnym problémom. Okrem iných mykotoxínov sa za poľnohospodársky významný kontaminant považuje zearalenón (ZEA). Zearalenón sa vyskytuje najmä v obilninách, ako je kukurica, pšenica, ryža, jačmeň, cirok, sója, ovos a vo výrobkoch z nich (Han a kol., 2022). Na negatívne účinky zearalenónu sú senzitívne ošípané, králiky, hydina ale aj ľudia prostredníctvom príjmu mykotoxínom znehodnotených potravín a krmív (Bulgaru a kol., 2021). Zearalenón je celosvetovo rozšírený a vykazuje estrogénom podobnú aktivitu. Predstavuje zdravotné riziko pre ľudí a hospodárske zvieratá v súvislosti s reprodukčnou sústavou. Je menej citlivý na zmeny prostredia a tepelné spracovanie, zostáva stabilný počas skladovania a spracovania potravín (Yazar a kol., 2008).

Z hľadiska prevencie výskytu mykotoxínov existuje mnoho rôznych postupov a prostriedkov na degradáciu a elimináciu mykotoxínov v krmivách a potravinách. Jednou z možností je degradácia mykotoxínov prostredníctvom biologických metód. Princípom biodegradácie je použitie enzýmov a metabolitov nepatogénnych mikroorganizmov (baktérie alebo kvasinky), ktoré vznikajú počas ich rastu a vývoja. Mikroorganizmy môžu priamo adsorbovať mykotoxíny alebo ich redukovať (Feng a kol., 2020; Xu a kol., 2022). Nepatogénne mikróby, ako napríklad druhy rodov *Bacillus*, *Saccharomyces* a *Lactobacillus*, majú schopnosť detoxikovať krmivá kontaminované zearalenónom, pretože spĺňajú štandardy bezpečnosti používania bez toho, aby krmivo negatívne ovplyvňovali v súvislosti s nepríjemným zápachom alebo chuťou (Wang a kol., 2019; Zhu a kol., 2021). Zistilo sa, že niektoré kvasinky a kmene *Lactobacillus* sú cytologicky kompatibilné so ZEA, sú schopné ho adsorbovať a tým znižujú jeho biologickú dostupnosť (Vega a kol., 2021). Okrem toho sa potvrdilo, že mikroorganizmy, ako napríklad *Bacillus subtilis*, môžu meniť molekulárnu štruktúru ZEA počas svojich metabolických procesov, čím sa môže znížiť jeho estrogénny účinok (Ju a kol., 2019).
Cieľom tejto práce bolo vyhodnotiť úroveň degradácie zearalenónu v koncentrácii 1 ppm použitím štyroch rôznych bezbunkových supernatantov probiotických baktérií *Limosilactobacillus fermentum* 2I3, *Limosilactobacillus reuteri* L26, *Lactiplantibacillus plantarum* CCM 1904 a *Bacillus subtilis*.

2 MATERIÁL A METODIKA

2.1 Príprava bezbunkových supernatantov

Pri príprave bezbunkového supernatantu z kmeňa *Bacillus subtilis* (Bs) bola použitá 24-hodinová kultúra narastená na B10 agare pri 35 °C. Pomocou sterilnej inokulačnej kľučky s objemom 10 µl boli odobraté bakteriálne kolónie, ktorými bolo inokulovaných 50 ml B10 bujónu v Erlenmeyerových bankách. Bezbunkové supernatanty jednotlivých kmeňov laktobacilov *Limosilactobacillus fermentum* 2I3 (L1), *Limosilactobacillus reuteri* L26 (L2), *Lactiplantibacillus plantarum* CCM 1904 (L3) boli pripravené inokuláciou 50 ml MRS bujónu kolóniami narastenými za anaeróbnych podmienok na MRS agare pri 35 °C počas 48 h, pričom anaerobióza bola zabezpečená použitím systému GasPak. Kultivácia buniek z kmeňov laktobacilov L1, L2 a L3 a *Bacillus subtilis* prebiehala v termostate za aeróbnych podmienok pri 35 °C s pretrepávaním na orbitálnej trepačke (Orbital Shaker – Biosan) pri 170 rpm.
Po 24-hodinovej inkubácii bola suspenzia kmeňa *B. subtilis* centrifugovaná dvakrát po 20 min pri 6000 rpm. Po druhej centrifugácii bol získaný čistý bezbunkový supernatant, ktorý bol následne prefiltrovaný cez sterilný mikrobiologický filter s pórovitosťou 0,22 µm. Supernatanty laktobacilových kmeňov L1, L2 a L3 boli pripravené analogickým postupom, avšak doba inkubácie bola predĺžená na 48 h. Bezbunkové supernatanty laktobacilov boli testované v 4 koncentráciách: 100 %, 50 %, 25% a 12,5% a Bs v 3 koncentráciách: 100 %, 50 % a 25 %. Pri riedení bezbunkových supernatantov na nižšie koncentrácie sme použili MRS bujón pre laktobacily a B10 bujón pre *Bacillus subtilis*.

2.2 Postup testovania biologickej degradácie zearalenónu *in vitro*

Zearalenón bol k jednotlivým koncentráciám bezbunkových supernatantov pridaný tak, že jeho výsledná hladina v 5 ml každej vzorky predstavovala 1 ppm (tabuľka č. 1).

Tabuľka č. 1, Schéma prípravy koncentrácií bezbunkových supernatantov s obsahom zearalenónu 1 ppm

Koncentrácia bezbunkových supernatantov	Bezbunkové supernatanty	Živné médium	ZEA 10 ppm
100 %	4,5 ml	-	0,5 ml
50 %	2,5 ml	2,0 ml	0,5 ml
25 %	1,25 ml	3,25 ml	0,5 ml
12,5 %	0,625 ml	3,875 ml	0,5 ml
0 % (PK)	-	4,5 ml	0,5 ml

ZEA – zearalenón, PK – pozitívna kontrola

Pozitívna kontrola (PK) bola pripravená nariedením zearalenónu v MRS, resp. B10 bujóne na koncentráciu 1 ppm. Skúmavky boli inkubované pri teplote 35 °C a po 24 h expozícii bol zostatkový zearalenón zo vzoriek extrahovaný pomocou koloniek – Neocolumn for Zearalenone (Neogen corporation, USA). Na vyhodnotenie koncentrácií zearalenónu bola použitá ELISA metóda, využitím ELISA kitu Veratox for Zearalenone (Neogen corporation, USA). Zistené hodnoty koncentrácií boli použité na výpočet percenta detoxikačného efektu bezbunkových supernatantov, podľa vzorca:

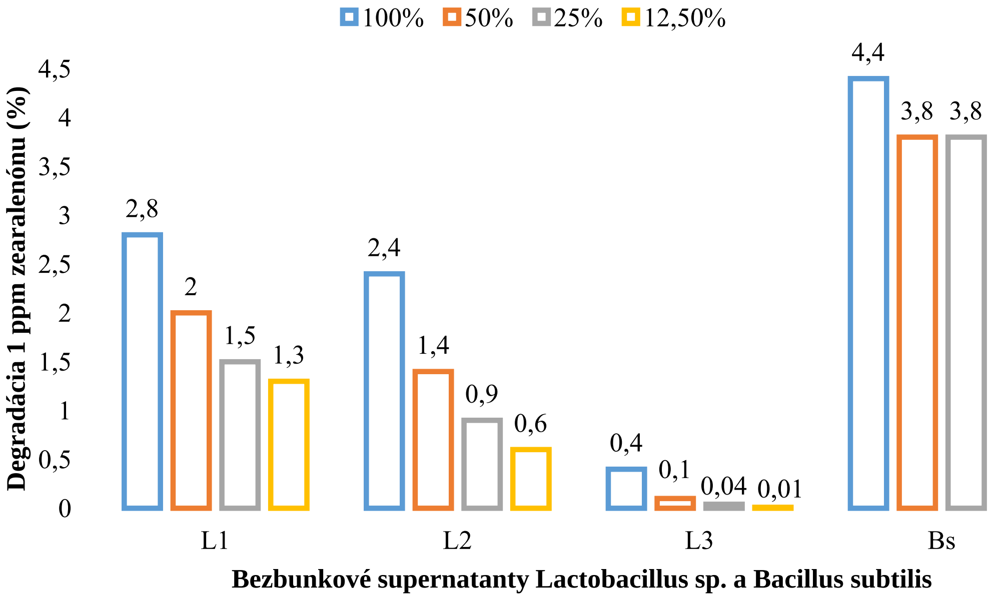
$$\%\ biodegradácie = \frac{C_{PK} - C_V}{C_{PK}}\ x\ 100$$

C_V – koncentrácia zearalenónu vo vzorke
C_{PK} – koncentrácia zearalenónu v pozitívnej kontrole

3 VÝSLEDKY

Detoxikačný účinok rôznych koncentrácií bezbunkových supernatantov kmeňov *L. fermentum* 2I3 (L1); *L. reuteri* L26 (L2), *L. plantarum* CCM 1904 (L3) a *Bacillus subtilis* CCM 2794 (Bs) voči zeralenónu v koncentrácii 1 ppm uvádza graf č. 1. Výsledky vo všeobecnosti poukazujú na veľmi nízku účinnosť bezbunkových supernatantov. Najlepší detoxikačný účinok bol pozorovaný pri bezbunkovom supernatante *Bacillus subtilis* CCM 2794, ktorý v 100% koncentrácii zdegradoval zearalenón o 4,4 %, v koncentráciách 50 % a v 25 % znížil hladinu ZEA o 3,8 %. Z bezbunkových supernatantov získaných z laktobacilov bol najúčinnejší L1, ktorý v 100 % koncentrácii degradoval ZEA o 2,8 %, v 50 % koncentrácii jeho detoxikačný účinok bol 2 %, v 25 % koncentrácii 1,5 % a v 12,5 % koncentrácii 1,3 %. Supernatant L3 v 100 % koncentrácii znížil hladinu ZEA o 2,4 %, v 50 % koncentrácii o 1,4 %, v 25 % o 0,9 % a pri najnižšej skúšanej koncentrácii 12,5 % to bolo len 0,6 %. Najmenej účinný bol bezbunkový supernatant L3, pri ktorom bol detoxikačný účinok takmer nulový (0,01 – 0,4 %).

Graf č. 1, Degradácia 1 ppm zearalenónu bezbunkovými supernatantmi vybraných druhov laktobacilov a *Bacillus subtilis*



L1 – *Limosilactobacillus fermentum* 2I3, L2 – *Limosilactobacillus reuteri* L26, L3 – *Lactiplantibacillus plantarum* CCM 1904, Bs – *Bacillus subtilis* CCM 2794

4 DISKUSIA

Zearalenón a jeho metabolity predstavujú potenciálne škodlivé látky pre zdravie zvierat v súvislosti s krmivom a ľudí prostredníctvom potravinového reťazca. Dlhodobý príjem vyšších koncentrácií zearalenónu má závažné toxické účinky na organizmus cicavcov, môže narušiť reprodukčný systém a vyvolať endokrinné poruchy. Podobne dlhodobá expozícia nízkymi dávkami zearalenónu spôsobuje endokrinné poruchy, ktoré môžu viesť k metabolickým poruchám a zvýšiť riziko ochorení súvisiacich s metabolickým syndrómom. V konečnom dôsledku kontaminácia krmiva mykotoxínmi môže byť príčinou ekonomických strát v chovateľskom priemysle (Han a kol., 2022). V súčasnej dobe existujú rôzne preventívne opatrenia na zníženie mykotoxickej záťaže krmív a potravín (Kovač Tomas a Jurčević Šangut, 2025). Všeobecne sa preventívne opatrenia rozdeľujú na predzberové, ktoré zahŕňajú striedanie plodín, správne obrábanie pôdy, vyvážené hnojenie, používanie vhodného semenného materiálu a sejbových techník, šľachtenie a výber plodín a pozberové opatrenia, ktoré môžeme rozdeliť na fyzikálne, chemické a biologické metódy degradácie mykotoxínov (Agriopoulou a kol., 2020). V súvislosti s biologickou degradáciou zearalenónu v potravinách a krmivách sa zistilo, že spomedzi kmeňov rodu *Bacillus, B. licheniformis*, *B. subtilis*, *B. natto* a *B. cerues* vykazujú najvyšší detoxikačný účinok (Gari a Abdela, 2023). Podobne, podľa našich výsledkov vykazoval najvyššiu mieru degradácie 1 ppm zearalenónu bezbunkový supernatant druhu *Bacillus subtilis.* V závislosti od použitej koncentrácie (100 %, 50 % a 25 %) sa stupeň degradácie pohyboval od 4,4 % do 3,8 %. Xiang a kol. (2024) zistili až 88 % degradačnú účinnosť u kmeňa *Bacillus subtilis* ZENL09 v experimente so zearalenónom v koncentrácii 1 ppm. Podobné výsledky a 99 % schopnosť *Bacillus subtilis* zdegradovať zearalenón v koncentrácii 1 ppm prezentovali aj Cho a kol. (2010). Probiotiká sú vhodnými prostriedkami pre biodegradáciu zearalenónu v potravinárskom priemysle, pretože vykazujú zdravotné benefity pre ľudí a zvieratá a väčšina baktérií mliečneho kvasenia sa v potravinárskom priemysle považuje za bezpečné (Wang a kol., 2019). Podľa našich výsledkov bol spomedzi laktobacilov najúčinnejší bezbunkový supernatant *L. fermentum* 2I3 s degradačným efektom v rozsahu 2,8 % - 1,3 % v korelácii so zvyšujúcou sa koncentráciou

(100 % - 12,5 %) a najmenej účinný bol bezbunkový supernatant *L. plantarum* CCM 1904, pri ktorom bol detoxikačný účinok takmer nulový (0,01 % – 0,4 %). Naproti tomu, Chen a kol. (2018) zistili vyššiu úroveň degradácie zearalenónu (45 %) v koncentrácii ZEA 5 mg/L pri použití supernatantu z kmeňa *L. plantarum*. Avšak podľa Hathout a Aly (2014) nie je dekontaminácia zearalenónu nikdy úplná, pokiaľ sa nevylúči prítomnosť jeho estrogénových analógov.

5 ZÁVER

Napriek širokej škále fyzikálnych, chemických a biologických metód dostupných na zmiernenie negatívnych dopadov mykotoxínov zostáva účinná neutralizácia týchto toxických zlúčenín významnou výzvou. Vysoká stabilita mnohých mykotoxínov, ich rôznorodé správanie v rôznych potravinových a krmivových matriciach a obavy týkajúce sa toxicity a bezpečnosti ich degradačných produktov komplikujú úsilie o dosiahnutie úplnej bezpečnosti. Tieto faktory zdôrazňujú pretrvávajúcu potrebu ďalšieho výskumu a inovatívnych stratégií, ktoré pripravujú cestu pre účinnejšiu a udržateľnejšiu kontrolu mykotoxínov.

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POSSIBLE DECONTAMINATION AFTER A TERRORIST ATTACK ON A NUCLEAR POWER PLANT

Petr Houdek, Dagmar Bártíková

Abstract
This paper focuses on analyzing the potential for decontamination following a terrorist attack on the Temelín Nuclear Power Plant. The assessment of current decontamination procedures was conducted using qualitative research methods, specifically through interviews with professionally qualified personnel. The interviews were carried out at the Temelín Nuclear Power Plant and involved selected staff from the Radiation Protection Department and members of the plant's Fire and Rescue Service. The aim of this paper is to evaluate the current state of preparedness.

Keywords: *contamination, decontamination, ionizing radiation, radiation emergency, radiation protection, terrorist attacks*

INTRODUCTION

The safety of nuclear power plants is a key element of energy stability and national security in the Czech Republic. In view of developments in the international situation and the increasing threat of terrorism targeting critical infrastructure, it is essential to focus not only on preventive measures but also on preparedness for managing the consequences of emergency situations. One of the most severe scenarios involves a potential terrorist attack on a nuclear facility, which could result in the release of radioactive substances and subsequent environmental contamination.

This paper aims to analyze the current state of decontamination procedures in the event of a radiation emergency at the Temelín Nuclear Power Plant. The study emphasizes the practical aspects of decontamination processes from the perspective of radiation protection personnel and members of the Temelín Fire and Rescue Service. Using qualitative research, based on structured interviews, the study evaluates their experience, equipment, methodologies, and the effectiveness of the used procedures. The results of the analysis provide an overview of the preparedness of individual units to respond to a radiation emergency caused by a terrorist attack and offer recommendations for improving the decontamination system.

1 TEMELÍN NUCLEAR POWER PLANT

There are two nuclear power plants in the Czech Republic: the Dukovany Nuclear Power Plant and the Temelín Nuclear Power Plant. Both power plants are equipped with WWER (water-water energy reactor) nuclear reactors and operate on the similar principle. However, they differ in terms of power output and structural layout (4, 18). The Dukovany Nuclear Power Plant is located on the border between the Vysočina and South Moravia regions and was commissioned in 1985–1988. It consists of four WWER 440 model V-213 pressurized water reactors. Each unit has a capacity of 510 MWe, giving the plant a total output of 2040 MWe (19).

The Temelín Nuclear Power Plant, situated in the South Bohemian region, was commissioned in 2002. Electricity is generated here by two WWER 1000 type V 320 production units. Each unit has a capacity of 1125 MWe, giving the plant a total output of 2250 MWe. Like

Dukovany, Temelín generates approximately 15 TWh of electricity annually. To support the cooling system, the Hněvkovice Reservoir was constructed on the Vltava River (17, 18).

1.1 Terrorist attacks on nuclear power plants

Nuclear power plants are electricity-generating facilities and constitute an important and integral part of critical infrastructure. One potential cause of contamination at a nuclear power plant could be a terrorist attack. In the past, terrorist organisations have demonstrated their willingness and ability to target critical infrastructure (3). Although nuclear power plants belong to the group of so-called "hard targets" - targets with a high level of protection against attack and unauthorized access. Terrorist objectives include: a) causing casualties (injuries and deaths), b) damaging or destroying critical infrastructure, c) disrupting the economy, d) harassing, weakening, or discrediting the government, e) discouraging tourism or investment due to perceived uncertainty, f) compelling people to change their daily routines or lifestyles (1). According to the US Department of Homeland Security (DHS), terrorism is defined as any activity involving an act that "is dangerous to human life or potentially destructive to critical infrastructure or key resources, and… must also be intended to: a) intimidate or coerce a civilian population, b) influence government policy through intimidation or coercion, or c) affect government conduct through mass destruction, assassination, or kidnapping" (6). Therefore, it is essential to address this issue. Terrorism targeting energy facilities, pipelines and transport routes is an increasingly significant threat to energy security, partly due to general tensions in global oil and gas market (5).

1.2 Contamination

Despite systematically implemented radiation protection measures, undesirable contamination with radioactive substances, known as contamination, may occur under certain circumstances. Contamination can result from a leak (planned or unplanned) from the primary circuit technology, causing radioactive substances to escape into the environment and potentially cause surface or air contamination (10).

- Surface contamination

In this case, radioactive substances settle on the surface of people or objects, so surface contamination is not caused by radiation. Depending on whether the radioactive substance can be removed from the surface, surface contamination is classified as either removable and non-removable. The unit of measurement for surface contamination, or surface activity, is Bq/m^2 and its presence can be detected by using measuring instruments, hand-held devices or monitors for people. Effective protection against surface contamination includes the use of personal protective equipment and protective work equipment (10, 8).

- Internal contamination

Internal contamination of a person occurs when a source of ionising radiation enters the body and irradiates it from within. Radionuclides can enter the body via inhalation, ingestion, or absorption through the skin. Depending on the properties of the radionuclide, various processes occur in the human body. Some radionuclides can be quickly eliminated by the body, while others, known as biogenic radionuclides, can accumulate in certain target organs (critical organs), which are then exposed to ionising radiation to a greater extent than other tissues. An example is the radioactive isotope iodine ^{131}I, which is released into the environment in the event of a nuclear accident and, when ingested, settles in the thyroid gland and causes its irradiation. To prevent this process, one of the immediate protective measures during a nuclear accident is to take iodine tablets, known as iodine prophylaxis. The purpose is to saturate the thyroid gland with stable iodine, thereby protecting it from radioactive iodine. A high incidence of thyroid cancer has been observed primarily among individuals who were the Chernobyl Nuclear Power Plant at the time of the accident. In contrast, during the Fukushima nuclear accident, timely evacuation and other protective measures successfully prevented contamination with radioactive iodine (10, 7).

The intake of radionuclides by the human body can be assessed through direct or indirect measurement methods**.** Direct measurement is performed using a FastScan monitor, designed for rapid assessment of internal contamination, and whole-body counters, which determine the distribution and activity of individual radionuclides in the human body. For iodine assessment in the thyroid gland, a specialized detector is applied directly to the gland. The presence of tritium is detected by analyzing urine samples. Indirect methods are based on estimating the effective dose or equivalent dose to be determined in situations where direct measurement cannot be used (lack of a whole-body monitor or inability to measure certain radionuclides by direct methods) or in emergency monitoring, when it is necessary to track the behaviour of radionuclides in the human body. Indirect measurement is based on the analysis of excreta, monitoring the working environment, or knowledge of the specific activity of radionuclide activity in the food chain (10, 7, 20).

1.3 Decontamination

Decontamination is a set of methods, procedures, organisational measures and means designed to effectively remove hazardous substances. It is a process aimed at reducing the spread of harmful materials, preventing secondary surface and internal contamination, and minimizing the risk of human exposure to radioactive substances through surface contamination.

The objective of decontamination is to reduce the content of a hazardous substance to a safe level or to completely remove the substance from the surfaces of people, material resources and equipment. Its main purpose is to mitigate health consequences for affected persons, prevent irreversible damage, and shorten the duration of protective equipment use (14, 11, 12).

Depending on the type of harmful substance being removed, the following types of decontamination are distinguished:

- detoxification (decontamination) – chemical substances,
- decontamination – radioactive substances,
- disinfection – biological substances (15).

Decontamination is subdivided depending on the method applied:

- Dry decontamination method
- Wet decontamination method (15).

Furthermore, decontamination methods are divided into:

- Mechanical – suction, wiping, washing, uncovering, coating, etc.
- Physical – evaporation, sorption, dilution, etc.
- Chemical – based on changing the molecular structure of the contaminant through its reaction with a decontaminating agent, leading to decomposition or its transformation into less hazardous substances or substances that are easier to remove.
- Combined – a combination of the above methods (15, 13).

1.4 Decontamination carried out by radiation protection service personnel

Primarily, decontamination (or deactivation) of individuals and personal items contaminated during routine operations is performed by operational radiation protection personnel within the so-called emergency hygiene loop area (9).

Skin decontamination is performed to reduce contamination to the lowest possible level without causing skin damage. The procedure for proper and effective decontamination must

be strictly followed. The first step is always hand decontamination, followed by other contaminated body parts.
Skin washing is typically carried out using decontamination soap and lukewarm water for about 2–3 minutes to prevent overhydration of the skin, as washing with hot water leads to undesirable pore opening and dilation. The process then continues according to the contaminated body area, always proceeding from top to bottom. Care must be taken to ensure that water does not enter the eyes or body openings, and particular attention should be paid to thorough cleaning of hard-to-reach areas and places where contamination easily accumulates, such as under the nails and between the fingers. The total duration of decontamination should not exceed approximately 8 minutes.

After decontamination, a measurement is taken on the monitor. If decontamination has not been successful, the next cleaning cycle continues at approximately 10-minute intervals so as not to damage the skin. If cleaning is unsuccessful, the next decontamination cycle should be performed. The procedure usually progresses from the use of mild decontamination agents to stronger ones, from warm water, washcloths, acidic soap, through detergents such as Jar, Odekon, soda, Chelaton, citric acid, to actions such as cutting nails, shaving beards and hair, and cutting hair. If contamination is found in the head area, there is a risk of internal contamination, so it is always necessary to ensure measurement on FastScan or a whole-body detector. If decontamination carried out by dosimetrists in an emergency hygiene loop is ineffective i.e. the surface activity exceeds 0.3 Bq/cm^{2}, the contaminated person is sent for special decontamination at the company's medical centre (9, 7).

Dosimetrists also perform decontamination of small personal items such as ID cards, mobile phones, and dosimeters. To remove radioactive substances, they use industrial alcohol or adhesive tape to capture hot particles (16). Decontamination of technological systems and equipment is carried out by a specialized contractor using the previously mentioned methods — dry or wet techniques, and mechanical, physical, and chemical processes.

1.5 Decontamination performed by the plant fire and rescue service

Both the Temelín Nuclear Power Plant and the Dukovany Nuclear Power Plant have their own fire brigades, which are based directly in the secured area of the power plant. Their primary task is to be ready for possible action within the plant area, although they also operate in the surrounding region. Their daily tasks include technical interventions and assistance, such as fire watch during work on specific equipment, securing personnel, rescuing individuals from elevators, and other activities. One of their essential activities is performing the decontamination of both radioactive and chemical substances, which are also used at nuclear power plants (2).

When carrying out decontamination, the fire service at nuclear power plants follows the national methodological instructions of the Operational Manual for Fire Protection Units – Tactical Intervention Procedures, specifically Instruction No. 4N “Hazard of Ionising Radiation,” No. L6 “Decontamination, Decontamination Area,” No. L7 “Decontamination of Responders,” No. L9 “Decontamination of Radioactive Substances,” as well as the Standard Operating Procedure for Integrated Rescue System Units during Joint Intervention STČ – 01/IZS “Dirty Bomb.” Decontamination is further performed in accordance with the specific action plan included in the External Emergency Plan for the Temelín and Dukovany Nuclear Power Plants (14).

The units decontaminate individuals exposed to hazardous substances, in the operation who have been exposed to hazardous substances, external surfaces of equipment, transport containers used for storing material resources, and material resources that cannot be placed in transport containers (17).

2 METHODOLOGY

For the purposes of analysing existing decontamination procedures at nuclear power plants, the Temelín Nuclear Power Plant was selected because it is our workplace and access to the necessary information is easier. It should be noted, however, that both sites share a unified management structure and follow the same procedures and methodologies; therefore, decontamination practices are standardized across both locations.
As nuclear power plants are among the most highly secured facilities in the country, certain information is classified. Consequently, only details that do not compromise the security of the facility will be presented.
The analysis of the current state of decontamination procedures was carried out using qualitative research, specifically through interviews with professionally qualified personnel.
One of the qualitative research methods used was interviews, which were divided into two groups: interviews with staff from the radiation protection department and the other with members of the plant's Fire and Rescue Service. Each group was asked questions to best capture their activities within the decontamination process. All employees who participated in the survey were employees of the Temelin Nuclear Power Plant. Interviews were selected as the research method due to the small number of employees in these positions, as well as because these individuals have a wealth of extensive experience, knowledge, and often many years of practice.
Prior to conducting the interviews, preparatory work was carried out, during which a set of questions relating to the issue was developed. This test set of questions was presented to one test subject from both the radiation protection department and the fire and rescue service. Based on the responses and feedbacks, the interview questions were slightly modified to reflect the topic as accurately as possible.
Interviews were then conducted with individual employees, with the aim of including at least one representative from each shift shift to ensure respondents were as independent as possible. Since the composition of these shifts is more or less constant, a certain precedent may be established, which everyone in the group follows. Data collection lasted several weeks, as all shifts needed to rotate through duty. The research was initially discussed with the heads of the relevant departments to determine whether and to what extent the information obtained could be used.
Each interview lasted approximately 10–15 minutes and was conducted at the respondent's workplace, i.e. in the case of dosimetrists, in the Central radiation control room, and in the case of firefighters, in the fire department of the plant. Before the interview, the respondent was informed of its purpose and objectives.

2.1 Description of the research sample

A total of 9 employees of the Radiation protection department at the Temelin Nuclear Power Plant were interviewed. Among them, 5 served as radiation safety technicians, 3 as Shift supervisors for Radiation control, and one as a Radiation risk management specialist. Additionally, 10 members of the fire and rescue service were interviewed, including 5 fire engine operators**,** 3 operations officers**,** and 2 team commanders**.**
The data was subsequently evaluated and analysed, and specific research categories were selected for which responses were prepared. Based on the findings, procedures were proposed to improve the current situation.

Decontamination of individuals and small objects, as well as decontamination within the controlled area at the Temelín Nuclear Power Plant, is carried out by radiation protection personnel operating in continuous 8- hour shifts. Six shifts alternate according to the established schedule (red, purple, yellow, green, blue, and brown). In addition, two supplementary shifts — replacement and rainbow — have been created to reinforce standard shifts in the event of absence of permanent members. The shift is usually made up of a radiation control shift supervisor, who is the shift leader, and is in contact with the managers of other technological systems. The shift also includes radiation safety technicians, who work in shifts of at least two people (usually three), such a shift group is legally mandatory in accordance with the limits and conditions, and failure to meet these requirements would constitute a violation of the Atomic Energy Act. The morning shift from Monday to Friday is additionally reinforced by an additional day shift, which, however, is not limited to the minimum number of dosimetrists on duty.

Decontamination of both chemical and radioactive substances outside the controlled area is carried out by the fire and rescue service of the Temelín Nuclear Power Plant. They operate in a continuous 12- hour shift system, alternating between four shifts (red, yellow, green and blue) replacing each other according to the established schedule. During each shift, the minimum number of firefighters on duty is 15, although typically 20–22 personnel are on duty.

In addition, in high-risk situations, decontamination is carried out by medical workers employed at the Temelín Nuclear Power Plant. From Monday to Friday, a plant doctor works on the morning shift at the nuclear power plant, but at the same time, rescuers from the South Bohemian Region work 12- hour shifts, each of whom actually works one shift per month.

2.2 Data collection

As part of the research, two sets of interviews were conducted on decontamination with experts working at nuclear power plants, specifically with employees of the radiation protection department who perform decontamination in the controlled area, as well as with employees of the plant's fire and rescue service, who carry out decontamination during incidents outside the controlled area. Both departments are part of the organisational structure of the security devision, which is common to both plants.

The questions were formulated in advance as follows:

- **Radiation Protection (RP) Department Employees**

1. Have you undergone specialized training in radiation protection?
2. How often do you perform decontamination of individuals?
3. Which documentation do you use to carry out decontamination?
4. What methods do you use to perform decontamination?
5. What equipment do you use?
6. How effective is the decontamination you carry out?
7. How do you handle contaminated water and the means used for decontamination?

- **Fire and rescue service employees**

1. Do you undergo special training in decontamination/radiation protection?
2. How often do you conduct decontamination training?
3. Have you ever carried out decontamination (not training)?
4. Have you undergone special training in decontamination/radiation protection?
5. What equipment and techniques do you use when performing decontamination?
6. How effective is the decontamination you carry out?
7. How is contaminated water and equipment handled?

3 RESULTS OF INTERVIEWS

This section presents the results of interviews conducted with employees of the radiation protection department and members of the plant's Fire and Rescue Service based on the questions asked.

Analysis of interviews

- **Radiation protection department staff**

The results of the interviews with employees of the Radiation Protection Department were divided into seven groups using coding

1) Education and qualification requirements (The results for this area are presented in Tab. 1)

Tab. 1: Category Education and qualification requirements [own]

Professional competence for performing activities from the perspective of radiation protection	All respondents unanimously stated that they had successfully completed a special professional competence course at the State Office for Nuclear Safety, commonly referred to as the PI course.
Basic training for nuclear power plant employees	All employees also mentioned that they had completed basic training at the ČEZ training centre, specifically modules M1 and M2.
Internal examinations	Additionally, they noted that it is necessary to pass so-called corporate examinations.

2) Frequency of decontamination (The results in this area are presented in Tab. 2)

Tab. 2: Category Frequency of decontamination [own]

During the main production unit (MPU) shutdown	During the shutdown of MPU, decontamination is performed much more frequently, several times a day.
Outside MPU shutdown	Outside of shutdown periods, it occurs only a few times a month.

3) Documentation and experience (The results in this area are presented in Tab. 3)

Tab. 3: Category Documentation and experience [own]

Method	The procedure for decontaminating personnel is established in the internal methodology "Radiation Protection Rules in the Controlled Area".
Subdivision specification	Further details are specified in the departmental instructions of the radiation protection department.
Operational experience	When performing decontamination, many dosimetrists rely on their many years of extensive experience and guidance from colleagues.

4) Method of implementation (The results in this area are presented in Tab. 4)

Tab. 4: Category Method of Implementation [own]

Decontamination method	The first step is to remove the work overalls and then wash the hands. If this is not sufficient, the individual should take a full-body shower from head to toe, ensuring that water does not enter body orifices. Initially, warm water and soap are used for a maximum of 8 minutes, which removes up to 90% of contamination. If several consecutive decontamination cycles are performed, after approximately 3 repetitions, the skin becomes softened; therefore, it is necessary to wait at least 20 minutes before the next cycle. In more complex cases, creams (Nivea, ISOLDA) are applied or procedures such as shaving, depilation, and hair cutting are performed. In practice, decontamination is carried out by the contaminated individual, and the dosimetrist determines how to carry out decontamination.

5) Means used (The results in this area are presented in Tab. 5)

Tab. 5: Category Means used

Means used	Decontamination typically involves the use of warm water, decontamination soap (or non-decontaminating soap), shampoo without conditioner, a 2% citric acid solution, a brush, nail scissors, hair scissors, a razor, and adhesive tape. Technical alcohol is used for decontamination of objects.

6) Decontamination results (The results in this area are presented in Tab. 6)

Tab. 6: Category Decontamination result [own]

Effectiveness of decontamination	The effectiveness of decontamination carried out by radiation protection service personnel is practically 100%, however, no formal statistics are

	maintained, and no contaminated individuals have required medical attention or consultation with healthcare professionals. Sometimes it is difficult to remove contamination, and the whole process takes longer. During decontamination, breaks are necessary to prevent skin maceration. During the operation of the nuclear power plant, there have been several cases where decontamination was unsuccessful, but even these individuals did not need to be referred to a doctor or medical personnel. The contamination level did not exceed any threshold requiring medical intervention but was higher than the clearance level for release into the environment. If internal contamination is suspected, typically involving only a few individuals during an outage, the person is sent to the personal dosimetry control station, where measurements for internal contamination are performed using a FastScan monitor and a whole-body counter. In all cases, internal contamination was not confirmed, and no medical intervention was necessary. Consequently, there was no need to activate the internal trauma plan, as the effective dose commitment threshold requiring referral to a physician was not exceeded.
Procedure in case of unsuccessful decontamination	When decontamination is unsuccessful, workers follow the procedures described in the internal documentation. At the same time, they consult with the shift radiation control supervisor and, above all, with the head of the radiation protection and radiation risk management department.

7) Radioactive waste management (RAW) (The results in this area are presented in Tab. 7)

Tab. 7: Category RAW management [own]

RAW management	Wastewater generated during the removal of radioactive substances is directed into a special sewer systém and then routed to a filtration station in the active support services building. Tools (such as brushes, scissors, etc.) that come into contact with contaminated materials either decontaminated with water or alcohol, or disposed of at the designated collection point in the fragmentation area.

Analysis of conducted interviews

- **Employees of the fire and rescue service of the enterprise (HZSp)**

The results of interviews with members of the Fire and Rescue service at the Temelín nuclear power plant were coded and divided into seven categories.

1) Education and qualification requirements (The results in this area are presented in Tab. 8)

Tab. 7: Category Education and qualification requirements [own]

OMEGA training	Firefighters complete an introductory training course called OMEGA
Training in radiation protection	Regarding radiation protection or chemical safety, the employer does not require specialized training in these areas. If an employee has undergonecompleted such training, it was during the employment with the regional fire service.

2) Decontamination training (The results in this area are presented in Tab. 9)

Tab. 8: Category Decontamination training [own]

Conducting decontamination training	Training exercises focused on decontamination of radioactive or chemical substances are conducted four times per year for each shift.

3) Frequency of decontamination (The results in this area are presented in Tab. 10)

Tab. 9: Category Decontamination frequency [own]

Decontamination frequency	Since the nuclear facility was commissioned, no real decontamination of radioactive substances has been required. However, firefighters have experience in performing chemical substance decontamination.

4) Documentation and experience (The results in this area are presented in Tab. 11)

Tab. 10: Category Documentation and experience [own]

Decontamination procedures	At the nuclear power plant, operations follow the operational regulations of the firefighting units.

5) Decontamination techniques and equipment (The results in this area are presented in Tab. 12)

Tab. 11: Category Decontamination techniques and equipment [own]

Techniques and equipment for decontamination	For simplified decontamination, only fire hoses and tarpaulins are used. Otherwise, an inflatable decontamination tent is employed, and if necessary, a shower, a water tanker truck, and a gas mask machine.

6) Decontamination results (The results in this area are presented in Tab. 13)

Tab. 13: Category Decontamination results [own]

Decontamination results	Decontamination performed by HZSp is effective, consistently meeting all required limits.

7) Radioactive waste management (The results in this area are presented in Tab. 14)

Tab. 12: Category RAW management [own]

RAW management	If wastewater is found to be contaminated, it is pumped out and disposed of by a specialized company. Contaminated equipment is either decontaminated to the required levels or disposed of as radioactive waste. The disposal of radioactive materials and water is managed by a commander or a dosimetrist.

CONCLUSION

The analysis presented in this paper confirmed the high level of preparedness and professional competence of personnel in the field of decontamination. Interviews revealed that both radiation protection staff and members of the plant's fire and rescue service possess the necessary knowledge, experience, and technical resources to manage radiological emergencies effectively. Current decontamination procedures are proven to be effective in practice and are implemented in accordance with internal guidelines and national regulations.

However, the study revealed certain differences in the frequency of professional training and the level of specialised exercises among different groups of employees. It is therefore recommended to strengthen a unified system of regular training and practical drills, including scenarios simulating non-standard situations such as targeted terrorist attacks.

Overall, the decontamination system at the Temelín Nuclear Power Plant is functional and well-organized. Future development should focus on achieving an even higher level of coordination between departments and systematically enhancing resilience to potential threats.

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INTEGRÁCIA ZOBRAZOVACÍCH A HISTOLOGICKÝCH VYŠETRENÍ V DIAGNOSTIKE RAKOVINY PRSNÍKA

INTEGRATION OF IMAGING AND HISTOLOGICAL EXAMINATIONS IN THE DIAGNOSIS OF BREAST CANCER

Marek Kopáčik, Zuzana Bárdyová

Abstrakt

Karcinóm prsníka je najčastejším malígnym ochorením u žien a jeho úspešná diagnostika závisí od efektívnej integrácie zobrazovacích a histologických metód. Mamografia predstavuje základnú diagnostickú metódu; pri nejasných alebo suspektných nálezoch sa dopĺňa ultrazvukom alebo magnetickou rezonanciou. Identifikované lézie sa následne verifikujú histologickým alebo cytologickým vyšetrením vzoriek získaných biopsiou. Integrované hodnotenie obrazových a histologických nálezov je kľúčové pre správnu rádiologicko-patologickú koreláciu, presnú diagnostiku, určenie biologických charakteristík tumoru a výber optimálnej liečby. Tento článok sa zameriava na význam vzájomnej komplementarity zobrazovacích a histologických vyšetrení v diagnostickom algoritme rakoviny prsníka.

Kľúčové slová: *biopsia, histológia, karcinóm prsníka, mamografia, rádiológia*

Abstract

Breast cancer is the most common malignant disease in women, and its accurate diagnosis depends on the effective integration of imaging and histological methods. Mammography represents the primary diagnostic modality and is supplemented by ultrasound or magnetic resonance imaging in cases of unclear or suspicious findings. Identified lesions are subsequently confirmed by histological or cytological analysis of biopsy specimens. Integrated assessment of imaging and histopathological findings is essential for proper radiologic-pathologic correlation, accurate diagnosis, determination of the tumor's biological characteristics, and selection of optimal therapy. This article focuses on the importance of the complementary roles of imaging and histological examinations within the diagnostic algorithm of breast cancer.

Key words: *biopsy, breast cancer, histopathology, mammography, radiology*

1 ÚVOD

Rakovina prsníka sa v posledných desaťročiach zaradila medzi hlavné príčiny morbidity a mortality žien na celom svete, čo súvisí najmä s demografickými, ekonomickými a epidemiologickými zmenami (Rakha et al., 2023). Podľa údajov Medzinárodnej agentúry pre výskum rakoviny (IARC) prekonala v roku 2020 rakovina prsníka svojou incidenciou aj rakovinu pľúc. Celkový počet diagnostikovaných nádorov sa za posledné dve dekády takmer zdvojnásobil – z približne 10 miliónov prípadov v roku 2000 na 19,3 milióna v roku 2020 – a prediktívne modely naznačujú, že v období 2020–2040 dôjde k ďalšiemu približne 50 % nárastu incidencie (Ghazi et al., 2024).

Kľúčovú úlohu v skríningu a diagnostike rakoviny prsníka zohráva mamografia. Randomizované kontrolované štúdie poskytli jednoznačné dôkazy o tom, že populačný mamografický skríning významne znižuje mortalitu na toto ochorenie, najmä u žien vo veku

50–69 rokov, pričom senzitivita mamografie sa pohybuje na úrovni 75–95 % a špecificita na úrovni 80–95 % (Kalaki et al., 2024).
Napriek vysokej účinnosti má mamografia svoje limitácie, najmä u žien s denzným žľazovým tkanivom a pri nešpecifických alebo prekrytých léziách. Preto sa v diagnostike využívajú doplnkové zobrazovacie modality, ako sú ultrasonografia a magnetická rezonancia, ktoré umožňujú detailnejšie zobrazenie architektúry tkaniva a presnejšiu lokalizáciu patologických štruktúr. Ak je na zobrazovacích metódach identifikovaná podozrivá lézia, je nevyhnutné pristúpiť k jej histologickej verifikácii.
Biopsia predstavuje základnú diagnostickú metódu, ktorá umožňuje spoľahlivé rozlíšenie medzi benígnymi a malígnymi procesmi. Odobraté tkanivo je následne podrobené histologickému vyšetreniu doplnenému o imunohistochemické, molekulovo-biologické a cytogenetické analýzy. Tieto metódy poskytujú komplexné informácie o biologických vlastnostiach nádoru vrátane histologického typu, gradingu, hormonálneho receptorového statusu, expresie HER2, proliferačnej aktivity (Ki-67) a prítomnosti genetických zmien, ktoré zásadným spôsobom ovplyvňujú prognózu aj voľbu liečebnej stratégie (Daneš, 2021).
Kľúčovou súčasťou diagnostického procesu je rádiologicko-patologická korelácia, ktorá overuje, či histologický výsledok zodpovedá rádiologickému nálezu a či je biopsia reprezentatívna pre hodnotenú léziu. Zhodnotenie súladu medzi zobrazovacím a histologickým nálezom umožňuje identifikovať prípady diagnostickej diskrepancie, potvrdiť adekvátnosť odobratej vzorky a zabrániť prehliadnutiu agresívnych alebo multifokálnych nádorov (Jörg et al., 2021; Park et al., 2018)
Cieľom článku je poskytnúť prehľad o zobrazovacích metódach a typoch biopsie v diagnostike karcinómu prsníka a poukázať na význam histologickej verifikácie a rádiologicko-patologickej korelácie.

2 ZOBRAZOVACIE METÓDY V DIAGNOSTIKE RAKOVINY PRSNÍKA

Mamografia predstavuje základnú zobrazovaciu metódu v skríningu rakoviny prsníka a jej účinnosť bola potvrdená v mnohých populačných programoch. Na Slovensku je skríningová mamografia určená pre ženy vo veku 45–75 rokov, pričom sa vykonáva v dvojročnom intervale v súlade s európskymi odporúčaniami pre organizované skríningové programy. Úspešnosť skríningu výrazne závisí od účasti populácie. Európske smernice pre zabezpečenie kvality odporúčajú minimálnu účasť 70–75 % (ECIBC, 2024; RADA EURÓPSKEJ ÚNIE, 2022).
Napriek preukázaným benefitom má mamografia svoje limitácie. Programová senzitivita, ktorá u žien s prevažne tukovým tkanivom dosahuje 86–89 %, klesá na 62–68 % u žien s denzným tkanivom prsníkov. Z tohto dôvodu sa odporúča, aby bola kategória denzity vždy uvedená v hodnotení BI-RADS, keďže má zásadný význam pre indikáciu doplnkových zobrazovacích vyšetrení (Marcon et al., 2024).
U žien s denznými prsníkmi sa odporúča doplnenie mamografie ďalšími metódami, ako sú ultrasonografia, magnetická rezonancia alebo digitálna tomosyntéza, ktoré môžu zlepšiť detekciu nádorov pri zachovaní prijateľného pomeru medzi prínosom a rizikom.
Výber vhodnej zobrazovacej modality je vždy podmienený klinickým kontextom, rizikovým profilom pacientky, charakterom prsníkového tkaniva a povahou identifikovaného nálezu. Spoločným cieľom všetkých zobrazovacích metód je identifikovať podozrivú léziu, čo najpresnejšie určiť jej vlastnosti a umožniť optimálne zacielenie biopsie. Histologické vyšetrenie zostáva zlatým štandardom na potvrdenie malignity, pričom zobrazovacie metódy poskytujú nevyhnutný podklad pre racionálnu indikáciu biopsie a správnu interpretáciu histologických výsledkov (Klein et al., 2023).
Zobrazovacie metódy teda zohrávajú kľúčovú úlohu v počiatočnom diagnostickom algoritme, avšak definitívne potvrdenie charakteru lézie a jej biologických vlastností je možné až na

základe histologického vyšetrenia, ktoré predstavuje ďalšiu nevyhnutnú etapu diagnostického procesu.

2.1 Mamografia

Mamografia je zobrazovacia metóda využívajúca nízkoenergetické röntgenové žiarenie na detekciu patologických lézií v prsníku, najmä solídnych tumorov, ktoré sú často sprevádzané prítomnosťou mikrokalcifikácií. Princípom mamografie je prechod röntgenového žiarenia cez prsné tkanivo a jeho diferenciálne zoslabovanie v závislosti od absorpčných vlastností jednotlivých tkanivových zložiek.
Počas mamografického vyšetrenia dochádza ku kompresii prsníka, ktorá zlepšuje homogenitu obrazu, znižuje prekrývanie tkanív a minimalizuje pohybové artefakty. Kompresia zároveň významne redukuje množstvo rozptýleného žiarenia, ktoré by bez nej mohlo byť až dvojnásobne vyššie (Mercer, 2022).
Digitálna mamografia poskytuje vysokú kvalitu zobrazenia pri nižšej radiačnej záťaži, s vysokou senzitivitou a možnosťou širokého spektra postprocesingových úprav. Medzi jej výhody patrí digitálna archivácia, jednoduché zdieľanie obrazovej dokumentácie, telerádiologické konzultácie a prezeranie snímok na viacerých pracovných staniciach. Digitálna mamografia zároveň zabezpečuje konzistentnú kvalitu obrazu, minimalizuje potrebu opakovania expozície a zlepšuje zobrazenie u žien s denzným žľazovým tkanivom (Daneš, 2021).
Dôležitým aspektom mamografického vyšetrenia je hodnotenie denzity prsníkov, ktorá odráža relatívne zastúpenie žľazového a tukového tkaniva. Jednou z používaných metód je Boydova klasifikácia, ktorá rozdeľuje prsníky do šiestich kategórií na základe percentuálneho zastúpenia glandulárneho tkaniva (tabuľka 1).

Tabuľka 1. Boydova klasifikácia denzity prsníkov (Mercer, 2022).

Kategória	**Percento glandulárneho tkaniva**	**Popis**
Typ A	0 %	Tkanivo prsníka je úplne tukové, bez prítomnosti glandulárneho tkaniva.
Typ B	> 0–10 %	Prsník s minimálnym množstvom glandulárneho tkaniva, prevažnú väčšinu prsníka tvorí tukové tkanivo.
Typ C	> 10–25 %	Prsník s miernym množstvom glandulárneho tkaniva, pričom stále väčšiu prsníka tvorí tukové tkanivo.
Typ D	> 25–50 %	Glandulárne tkanivo tvorí významnú časť prsníka, hoci stále dominuje tukové tkanivo.
Typ E	> 50–75 %	Glandulárne tkanivo tvorí viac ako polovicu prsníka, pričom tukové tkanivo tvorí menej ako polovicu.
Typ F	> 75 %	Glandulárne tkanivo tvorí prevažnú väčšinu prsníka.

V klinickej praxi je však najrozšírenejším hodnotiacim systémom BI-RADS (*Breast Imaging Reporting and Data System*), ktorý stanovuje kategórie denzity a zároveň poskytuje štandardizovaný rámec pre popis mamografických abnormalít (tabuľka 2). Systém BI-RADS, pôvodne vydaný v roku 1993, bol v roku 2014 (5. edícia) revidovaný *American College of Radiology*. Jeho cieľom je zabezpečiť jasnú a jednotnú komunikáciu rádiologických nálezov ošetrujúcim lekárom a zároveň slúži ako nástroj kontroly kvality (Mohan et al., 2024).
Na základe kategórie BI-RADS sa odporúča rozdielny postup: pri kategóriách 1 a 2 sa odporúča dvojročný skríningový interval mamografie, pri kategórii 3 krátkodobé

zobrazovacie sledovanie v intervale 6–12 mesiacov a pri kategóriách 4 a 5 histologická verifikácia tkaniva.

Tabuľka 2. Klasifikácia BI-RADS (Mercer, 2022).

Kategória	**Popis kategórie**	**Pravdepodobnosť malignity**
BI-RADS 0	Neúplné hodnotenie - potrebné doplňujúce zobrazovacie vyšetrenie.	-
BI-RADS 1	Negatívny nález.	0 %
BI-RADS 2	Benígny nález.	0 %
BI-RADS 3	Pravdepodobne benígny nález.	≤ 2 %
BI-RADS 4 BI-RADS 4A BI-RADS 4B BI-RADS 4C	Podozrivý nález – indikovaná biopsia. → nízke podozrenie na malignitu → stredné podozrenie malignity → vysoké podozrenie malignity.	> 2 % až ≤ 94 % > 2 % až < 10 % ≥ 10 % až < 50 % ≥ 50 % až < 95 %
BI-RADS 5	Nález vysoko suspektný z malignity	≥ 95 %
BI-RADS 6	Histologicky potvrdená malignita.	100 %

Hoci mamografia predstavuje základnú zobrazovaciu metódu skríningu a diagnostiky rakoviny prsníka, jej výťažnosť môže byť znížená u žien s denzným žľazovým tkanivom. V týchto prípadoch sa využívajú doplnkové zobrazovacie modality, ako sú ultrasonografia a magnetická rezonancia, ktoré zvyšujú šancu na detekciu nádorov (Brown et al., 2023).
Zobrazovacie vyšetrenia vrátane mamografie slúžia na identifikáciu suspektných lézií a určenie ich charakteru. Definitívnu verifikáciu patologického nálezu je však možné získať len biopsiou. Mamografický nález preto často predstavuje prvý krok diagnostického algoritmu, ktorý následne vedie k ultrasonografickému alebo MR-cielenému vyšetreniu a k indikácii histologickej verifikácie.

3 BIOPTICKÉ METÓDY V DIAGNOSTIKE RAKOVINY PRSNÍKA

Biopsia predstavuje kľúčový diagnostický krok pri verifikácii podozrivých lézií identifikovaných zobrazovacími metódami a je považovaná za zlatý štandard pri potvrdení malignity. Perkutánna, zobrazovaním navigovaná biopsia sa v súčasnosti považuje za štandard starostlivosti pri diagnostike suspektných ložísk, keďže ide o presnú metódu s nízkou invazivitou, minimálnym rizikom komplikácií a nižšími nákladmi v porovnaní s chirurgickou biopsiou. Odber tkaniva umožňuje nielen stanovenie histologickej diagnózy, ale aj hodnotenie biologických charakteristík nádoru, ktoré majú zásadný význam pre prognózu a voľbu liečebnej stratégie.
V modernej klinickej praxi sa používajú najmä tri perkutánne techniky – tenkoihlová aspiračná biopsia (fine-needle aspiration biopsy, FNAB), core-cut biopsia (core-cut biopsy, CCB) a vákuová biopsia prsnej žľazy (vacuum-assisted biopsy, VAB). Každá z nich má svoje špecifické indikácie, výhody a limity. FNAB využíva tenkú a pevnejšiu ihlu (zvyčajne 25 G) na odber bunkového materiálu, zatiaľ čo CCB používa širšiu dutú ihlu (zvyčajne 14 G), ktorá umožňuje získanie valčekov tkaniva a poskytuje spoľahlivý podklad pre histologické hodnotenie (Gwak et al., 2023).
Biopsia sa vykonáva výhradne pod zobrazovacou kontrolou, najčastejšie pomocou ultrasonografie, mamografie alebo tomosyntézy (vrátane kontrastnej mamografie - CEM), prípadne magnetickej rezonancie. Výber optimálnej techniky závisí od viditeľnosti lézie, jej charakteru, lokalizácie a technickej náročnosti výkonu (Sanderink et al., 2025).

3.1 Tenkoihlová aspiračná biopsia a cytológia

Tenkoihlová aspiračná biopsia (fine-needle aspiration biopsy, FNAB) a aspiračná cytológia (fine-needle aspiration cytology, FNAC) patria medzi najstaršie a najdlhšie používané perkutánne techniky odberu materiálu z prsnej žľazy. Ich hlavnými výhodami sú technická jednoduchosť, nízka invazivita, minimálne riziko komplikácií a dobrá tolerancia zo strany pacientiek. Hoci bola FNAB v moderných zdravotníckych systémoch vo veľkej miere nahradená core biopsiou, zostáva významnou a v prostrediach s obmedzenými zdrojmi často jedinou dostupnou diagnostickou metódou. V týchto podmienkach predstavuje FNAB spolu s rýchlym cytologickým hodnotením počas výkonu (rapid on-site evaluation, ROSE) dôležitý nástroj na zvýšenie dostupnosti a urýchlenie diagnostiky rakoviny prsníka (Kimambo et al., 2024).

FNAB sa využíva najmä na punkciu alebo evakuáciu tekutinových kolekcií, pričom umožňuje rýchle získanie orientačného cytologického výsledku. V súčasnej klinickej praxi má však obmedzenú úlohu v diagnostike solídnych lézií. Jej hlavným limitom je nemožnosť hodnotiť architektoniku tkaniva, určiť prítomnosť invazivity nádoru, stanoviť grading či spoľahlivo posúdiť biomarkery (ER, PR, HER2). Z tohto dôvodu sa FNAB nepovažuje za metódu prvej voľby pri léziách kategórie BI-RADS 4 a BI-RADS 5, kde je preferovaná core biopsia.

FNAB má miesto aj v manažmente zápalových procesov, najmä pri drenáži abscesov, pričom odobratý materiál sa odosiela na mikrobiologické vyšetrenie s cieľom identifikácie etiologického agens a stanovenie citlivosti na antibiotiká (Daneš, 2021).

FNAB sa vykonáva najčastejšie pod ultrasonografickou navigáciou, ktorá zvyšuje presnosť zacielenia a znižuje riziko odberu neadekvátnej vzorky.

V posledných rokoch bol pre aspiračnú cytológiu prsníka vyvinutý Yokohamský systém Medzinárodnej cytologickej akadémie (International Academy of Cytology, IAC), ktorý prináša štandardizovaný prístup k reportovaniu cytologických nálezov. Systém definuje päť diagnostických kategórií (C1 – nedostatočná, C2 – benígna, C3 – atypická, C4 – suspektná, C5 – malígna), pričom pre každú kategóriu uvádza špecifické riziko malignity a odporúčaný klinický manažment. Štúdie potvrdzujú, že aplikácia tohto systému zlepšuje konzistentnosť diagnostiky medzi cytopatológmi a zvyšuje celkovú diagnostickú presnosť FNAB (Niaz et al., 2022; Yu et al., 2023).

Dlhodobá štúdia de Cursi et al. (2020) potvrdila, že FNAB môže byť vysoko spoľahlivou metódou pri hodnotení malých lézií ($\leq$ 1,0 cm), so špecificitou 99,6 %, senzitivitou 97,4 %, pozitívnou prediktívnou hodnotou 99,6 %, negatívnou prediktívnou hodnotou 97,6 % a celkovou presnosťou 98,5 %. Vo všeobecnosti sa diagnostická presnosť FNAB pohybuje medzi 86,1–95,7 % (de Cursi et al., 2020).

V diagnostickom algoritme rakoviny prsníka zohráva FNAB doplnkovú úlohu. Hoci predstavuje rýchlu a minimálne invazívnu diagnostickú metódu, definitívne potvrdenie malignity a hodnotenie biologických parametrov nádoru si vyžaduje histologické vyšetrenie tkaniva získaného pomocou CCB alebo VAB.

3.2 Core-cut biopsia

Core-cut biopsia (core-cut biopsy, CCB; core-needle biopsy CNB) predstavuje v súčasnosti základnú a nenahraditeľnú metódu histologického odberu tkaniva z prsnej žľazy. Vďaka možnosti získať dostatočný objem tkaniva pri zachovaní architektoniky umožňuje presnú diagnostiku, hodnotenie invazivity nádoru, stanovenie gradingu a spoľahlivé určenie biomarkerov (ER, PR, HER2, Ki-67). Z týchto dôvodov je CCB považovaná za zlatý štandard v diagnostike lézií kategórie BI-RADS 4 a BI-RADS 5 (Jung et al., 2020).

V klinickej praxi sa CCB najčastejšie vykonáva pod ultrasonografickou navigáciou pomocou automatizovaného bioptického systému a ihly s priemerom 14 G, ktorá poskytuje optimálny pomer medzi invazivitou a kvalitou vzorky. Štandardne sa odoberá 3–6 valčekov tkaniva, pričom medzinárodné odporúčania zdôrazňujú význam viacnásobných odberov najmä pri heterogénnych alebo čiastočne solídnych léziách, aby sa minimalizovalo riziko nereprezentatívnej vzorky (Huang et al., 2017).

CCB poskytuje vysokú diagnostickú presnosť s nízkou mierou falošne negatívnych výsledkov. Pri CCB vykonanej ihlou 14 G pod ultrasonografickou kontrolou sa uvádza priemerná miera falošne negatívnych výsledkov približne 2 %, pričom rozsah 1,2–3,3 % je konzistentný medzi jednotlivými štúdiami (Bick et al., 2020). Najčastejšími príčinami nesúladu sú nesprávne zacielené lézie (napr. krvácanie alebo pohyb lézie pri vpichu ihly) alebo histologická heterogenita nádoru. Nereprezentatívny odber sa môže vyskytnúť najmä pri léziách s difúznym rastom alebo s nejednotnou architektúrou (napr. DCIS, ILC, difúzne rastúce IDC), kde môžu byť malígne bunky roztrúsené v benígnom stromálnom tkanive (Bick et al., 2020).

Ultrasonografická navigácia „voľnou rukou“ je najčastejším spôsobom vedenia CCB a umožňuje vysokú presnosť, flexibilitu a dobrú toleranciu výkonu zo strany pacientky. Stereotaktická biopsia pod mamografickou kontrolou sa používa najmä pri mikrokalcifikáciách alebo architektonickej distorzii, avšak jej diagnostická spoľahlivosť je vo všeobecnosti nižšia v porovnaní s vákuovou biopsiou (Daneš, 2021).

CCB je zásadná aj z hľadiska terapeutického plánovania. Získaná vzorka umožňuje kompletné histologické vyšetrenie vrátane hodnotenia molekulárnych markerov, čo je nevyhnutné pre zaradenie nádoru do biologického subtypu a následné rozhodovanie o chirurgickej, systémovej a rádioterapeutickej liečbe. V porovnaní s FNAB má CCB výrazne vyššiu výpovednú hodnotu a v moderných diagnostických algoritmoch prakticky úplne nahradila aspiračnú cytológiu.

V diagnostickom algoritme rakoviny prsníka predstavuje CCB kľúčovú a primárnu metódu odberu tkaniva. Najnovšie randomizované štúdie potvrdzujú, že CCB poskytuje vysokú diagnostickú presnosť aj pri menších léziách a že jej výkonnosť sa pri solídnych léziách väčších ako 1 cm približuje výsledkom VAB, pričom si zachováva nižšiu invazivitu a nižšie náklady (Zhang et al., 2023). Napriek tomu môže byť CCB v špecifických situáciách (mikrokalcifikácie, B3 lézie, nejasné architektonické zmeny) nahrádzaná VAB (Bick et al., 2020; Marcon et al., 2024).

3.3 Vákuová biopsia

Vákuová biopsia prsnej žľazy (vacuum-assisted biopsy, VAB) predstavuje modernú perkutánnu bioptickú techniku, ktorá umožňuje odber veľkého objemu tkaniva pomocou rotačnej reznej ihly v kombinácii s kontinuálnym vákuovým nasávaním. V porovnaní s FNAB a CCB poskytuje VAB podstatne väčšie, kompaktnejšie a reprezentatívnejšie vzorky tkaniva, čo výrazne znižuje riziko neadekvátneho odberu a zvyšuje diagnostickú presnosť. Technika bola pôvodne určená najmä na odber mikrokalcifikácií a architektonických deformácií pri mamografii, avšak jej využitie sa postupne rozšírilo aj na ďalšie klinické situácie vrátane malých solídnych ložísk či indeterminovaných nálezov (Moustafa et al., 2024).

VAB sa používa najmä v prípadoch, keď CCB nemusí zabezpečiť dostatočne reprezentatívny vzorkový materiál, napríklad pri ložiskách malých rozmerov (< 1 cm), mikrokalcifikáciách, difúznych architektonických zmenách, pri B3 léziách alebo pri morfologicky heterogénnych ložiskách s vyšším rizikom podhodnotenia. Vďaka možnosti odobrať veľký počet po sebe nasledujúcich valčekov tkaniva (často 12–24) je VAB obzvlášť vhodná pre presné zhodnotenie lézií s nehomogénnou štruktúrou alebo ložísk s čiastočnou prítomnosťou invazívnych komponentov (Bebek et al., 2025).

VAB môže byť vykonaná pod rôznymi zobrazovacími modalitami podľa typu a viditeľnosti lézie:

- **stereotakticky (mamografia/tomosyntéza**) - optimálna pri mikrokalcifikáciách a architektonických distorziách,
- **pod ultrasonografickou navigáciou -** vhodná pre hypoechogénne solídne ložiská,
- **pod kontrolou magnetickej rezonancie -** používa sa pri léziách detegovaných výhradne na magnetickej rezonancii, ktoré nie sú viditeľné v iných modalitách.

V porovnaní s CCB vykazuje VAB nižšiu mieru falošne negatívnych výsledkov a vyššiu diagnostickú presnosť, najmä pri nejasných a morfologicky komplexných léziách. Metaanalýza Lee et al. (2020) preukázala senzitivitu VAB 97–100 % a špecificitu 98–100 %. Výraznou výhodou VAB je nižšie riziko podhodnotenia u B3 lézií, najmä pri atypickej duktálnej hyperplázii, papilárnych léziách a sklerotizujúcich procesoch. Systematické prehľady a metaanalýzy potvrdzujú, že VAB významne znižuje mieru podhodnotenia v porovnaní s CCB (Irmici et al., 2025; Vanhaeverbeek et al., 2023).

Napriek výhodám môže byť VAB technicky náročnejšia a spojená s mierne vyšším rizikom krvácania. Môže dôjsť aj k tvorbe hematómu alebo krátkodobej bolestivosti, hoci väčšina komplikácií je klinicky nevýznamná. Kľúčová je správna indikácia – VAB nie je vhodná pri difúzne rastúcich malignitách, pri ktorých existuje riziko, že ani veľký objem odobratého tkaniva nezachytí invazívnu zložku.

V diagnostickom algoritme rakoviny prsníka predstavuje VAB doplňujúcu a vysoko presnú metódu, ktorá rozširuje možnosti štandardnej CNB najmä pri mikrokalcifikáciách, architektonických deformáciách a B3 léziách. V mnohých prípadoch znižuje potrebu chirurgickej excízie a významne zlepšuje kvalitu histologického hodnotenia vďaka väčšiemu objemu odobratého tkaniva.

4 KORELÁCIA ZOBRAZOVACÍCH A HISTOPATOLOGICKÝCH NÁLEZOV

Rádiologicko-patologická korelácia predstavuje kľúčový prvok modernej diagnostiky karcinómu prsníka, keďže zásadným spôsobom ovplyvňuje presnosť diagnostiky aj staging ochorenia. Umožňuje prepojiť makroskopický obraz lézie zachytený zobrazovacími metódami s jej skutočnými mikroskopickými charakteristikami. Bez tohto prepojenia nie je možné spoľahlivo potvrdiť biologickú povahu nádoru ani validovať zobrazovacie nálezy.

Zatiaľ čo mamografia predstavuje prvý krok diagnostického algoritmu, zlatým štandardom zostáva patologické vyšetrenie. To spravidla vyžaduje odber nádorového tkaniva (core-cut biopsia, vakuová biopsia, excízia), po ktorom nasleduje spracovanie vzorky a farbenie hematoxylínom a eozínom. Hematoxylín sa viaže na nukleové kyseliny a zvýrazňuje jadrá buniek, zatiaľ čo eozín sa viaže na intracelulárne a extracelulárne proteíny a zvýrazňuje cytoplazmatické a stromálne štruktúry (Hao et al., 2021).

Rozdiel medzi nálezom na zobrazovacích metódach a definitívnou patologickou diagnózou môže vzniknúť v dôsledku viacerých faktorov, najmä pri malých, nehomogénnych, difúznych alebo multifokálnych léziách. K najčastejším príčinám patria:

- nepresný alebo neadekvátny odber vzorky,
- heterogenita nádoru (rozdielna expresia markerov v rôznych častiach tumoru),
- inter- alebo intraobserverová variabilita v interpretácii zobrazovacích nálezov,
- technické limity pri cielení mikrokalcifikácií alebo architektonickej distorzie.

Literatúra uvádza mieru rádiologicko-patologickej diskrepancie na úrovni 1–8 %, pričom až 24 % discordantných prípadov bolo pri následnom vyšetrení klasifikovaných ako malígne (Mohan et al., 2024). Tento fakt zdôrazňuje potrebu systematickej rádiologicko-patologickej korelácie, posúdenia adekvátnosti vzoriek a multidisciplinárneho hodnotenia, aby sa zabezpečila maximálna presnosť diagnostiky a optimálny terapeutický postup.

Histopatologická klasifikácia nádoru poskytuje kľúčové informácie o biologickom správaní lézie. Nottinghamské histologické kritériá hodnotenia invazívnych karcinómov prsníka

zohľadňujú percento tubulárnej/žľazovej diferenciácie, jadrovú pleomorfiu a mitotickú aktivitu, na základe čoho sa stanovuje histologický grading (van Dooijeweert et al., 2022).
Súčasťou komplexnej diagnostiky je aj molekulová klasifikácia, ktorá významne ovplyvňuje prognózu aj výber liečby. Základné biologické podtypy zahŕňajú:

- **luminal A** - ER-pozitívne, HER2-negatívne tumory s nízkym Ki-67;
- **luminal B** - ER-pozitívne, HER2-pozitívne tumory s vysokým Ki-67;
- **HER2-obohatené** - ER-negatívne tumory s nadmernou expresiou HER2;
- **bazaloidné/tripl-negatívne tumory** - negatívne na ER, PR aj HER2 (Mohan et al., 2024).

Tieto údaje sú zásadné pre integráciu histopatologického výsledku so zobrazovacími charakteristikami, napríklad pri hodnotení agresivity lézie, prítomnosti nekrózy, štruktúrnej heterogenity či rozsahu postihnutia.
Rádiologicko-patologická korelácia má obzvlášť zásadný význam pri interpretácii mikrokalcifikácií, architektonickej distorzie, nepalpovateľných lézií a nálezov kategórie BI-RADS 4–5 nálezov. V týchto situáciách je kritické potvrdiť, či histologická morfológia tumoru zodpovedá očakávaným zobrazovacím charakteristikám. Správna korelácia minimalizuje riziko falošne negatívnych biopsií, zabezpečuje vhodné zacielenie ďalšej diagnostiky a zlepšuje efektivitu skríningového aj diagnostického procesu.
Rádiologicko-patologická korelácia zahŕňa aj hodnotenie adekvátnosti odobratej vzorky, keďže práve neadekvátna alebo nereprezentatívna biopsia patrí medzi najčastejšie príčiny diskrepancie medzi zobrazovacím a histopatologickým nálezom (Brennan et al., 2011). Adekvátna vzorka by mala obsahovať jednoznačne identifikovateľnú cieľovú léziu, dostatočný počet valcov tkaniva a prítomnosť mikrokalcifikácií (ak sú cieľom biopsie), čo je nevyhnutné pre správnu interpretáciu (Brnić et al., 2016). Pri suboptimálnej kvalite vzorky sa odporúča doplniť rebiopsiu alebo indikovať chirurgickú excíziu.
Okrem overenia adekvátnosti vzorky poskytuje rádiologicko-patologická korelácia aj významnú spätnú väzbu. Patologický nález môže pri nezhode s charakteristikami lézie viditeľnými na zobrazovacích metódach viesť k prehodnoteniu nálezu, doplneniu ďalších vyšetrení alebo k opakovaniu biopsie. Benígny histologický výsledok pri vysoko suspektnom náleze kategórie BI-RADS 5 sa považuje za jednoznačnú rádiologicko-patologickú diskrepanciu, ktorá si vyžaduje rebiopsiu alebo chirurgickú excíziu (Liberman, 2000; Wan et al., 2024). Podobne, podhodnotenie B3 lézií pri CCB je indikáciou na doplnenie VAB alebo excízie, keďže až 9–35 % týchto lézií môže ukrývať invazívnu zložku (Bellini et al., 2023; Rageth et al., 2019).
Týmto spôsobom sa vytvára dynamický diagnostický cyklus, v ktorom zobrazovacie metódy usmerňujú výber bioptickej techniky a patologický výsledok následne spätne ovplyvňuje interpretáciu zobrazovacích nálezov. Tento obojsmerný proces výrazne znižuje mieru falošne negatívnych výsledkov a stabilizuje celý diagnostický algoritmus.
Rádiologicko-patologická korelácia je preto nevyhnutným komponentom celého diagnostického procesu – zabezpečuje konzistentnosť medzi zobrazovacími a histopatologickými nálezmi, umožňuje správnu interpretáciu biologickej povahy nádoru a optimalizuje ďalší klinický manažment pacientky.

5 ZÁVER

Integrácia zobrazovacích a histopatologických vyšetrení predstavuje základný pilier modernej diagnostiky rakoviny prsníka. Spojenie presnej rádiologickej interpretácie, adekvátnej bioptickej techniky a kvalitného histopatologického hodnotenia umožňuje skrátiť diagnostický interval, znížiť počet neadekvátnych odberov a zabezpečiť správnu interpretáciu biologickej povahy nádoru.

Rádiologicko-patologická korelácia zároveň zvyšuje diagnostickú presnosť, minimalizuje riziko falošne negatívnych výsledkov a zohráva kľúčovú úlohu pri výbere optimálnej terapeutickej stratégie.
Multidisciplinárny prístup je dnes neoddeliteľnou súčasťou integrovanej diagnostiky. Spolupráca rádiológa, patológa, chirurga a klinického onkológa umožňuje optimalizovať rozhodovanie o liečebnom postupe a minimalizovať riziko diagnostických chýb. Usmernenia EUSOMA, NCCN a EUSOBI zdôrazňujú, že multidisciplinárne hodnotenie znižuje mieru diagnostických nezhôd, skracuje čas do začatia liečby a zlepšuje celkovú prognózu pacientok.
Súčasné diagnostické algoritmy čoraz viac využívajú pokročilé zobrazovacie modality, štandardizované bioptické postupy a molekulárne profilovanie, ktoré umožňujú komplexný a detailný pohľad na nádor. Očakáva sa, že v budúcnosti dôjde k ešte hlbšej integrácii vďaka rozvoju umelej inteligencie, radiomiky, automatizovanej kvantifikácie histologických parametrov a digitalizácie patologických dát. Tieto technológie prispejú k personalizácii diagnostiky, zlepšeniu reprodukovateľnosti a presnejšiemu odhadu prognózy, čím posunú diagnostiku rakoviny prsníka na novú kvalitatívnu úroveň.

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NEKALORICKÉ SLADIDLÁ VO FARMÁCII

NON-CALORIC SWEETENERS IN PHARMACY

Slavomír Kurhajec

Abstrakt

Nekalorické (non-nutritívne) sladidlá sa vyznačujú vysokou sladivosťou a nízkou alebo zanedbateľnou energetickou hodnotou. Predstavujú dôležitú náhradu sacharózy v potravinárstve a farmaceutickom priemysle. Prispievajú k stabilnej glykémii, prevencii zubného kazu a môžu zohrávať dôležitú úlohu v manažmente obezity alebo cukrovky. K najznámejším nekalorickým sladidlám patria acesulfám draselný, advantám, aspartám, cyklamát, glykozidy stévie, neohesperidín dihydrochalkón, neotám, sacharín, soľ aspártamu-acesulfámu, sukralóza a taumatín. Je ideálne, aby sladidlo (okrem bezpečnosti) vykazovalo vysokú sladivosť, stabilitu v širokom rozmedzí pH a teplôt a prirodzenú chuť bez nepríjemnej pachuti. Preto sa využívajú kombinácie viacerých sladidiel, ktoré navzájom dávajú lepšiu chuť a vykazujú synergický efekt, ktorý umožňuje ich nižšie dávkovanie.

Kľúčové slová: *cukor, sladivosť, dibetes, obezita, chudnutie*

Abstract

Non-nutritive sweeteners are characterized by high sweetness and low or negligible energy value. They serve as an important substitute for sucrose in the food and pharmaceutical industries. They contribute to stable glycemia, prevention of dental caries, and can play a key role in managing obesity or diabetes. The most well-known non-nutritive sweeteners include acesulfame potassium, advantame, aspartame, cyclamate, steviol glycosides, neohesperidin dihydrochalcone, neotame, saccharin, aspartame-acesulfame salt, sucralose, and thaumatin. Ideally, a sweetener (besides long-term safety) should exhibit high sweetness, stability across a wide pH and temperature range, and a natural taste without unpleasant aftertaste. Therefore, combinations of multiple sweeteners are used, which mutually provide better flavour and exhibit a synergistic effect, allowing lower dosing.

Key words: *sugar, sweetness, diabetes, obesity, weight loss*

ÚVOD

Alternatívne sladidlá ako náhrada sacharózy sú predmetom záujmu nielen potravinárstva, ale často zastávajú aj úlohu suroviny vo farmaceutickom priemysle. Téma „umelých“ sladidiel je vysoko populárna najmä u zdravotníkov, športovcov a ľudí, ktorých zaujíma zdravý životný štýl, pričom často vykazuje určitú dávku kontroverzie. Hlavným dôvodom náhrady najpoužívanejšieho sladidla t.j. repného/ trstinového cukru (sacharózy), je znižovanie kalorickej hodnoty chutných potravín a nápojov s čím súvisí celý rad zdravotných benefitov. Okrem zníženia kalorického príjmu, prispievajú k stabilnejšej glykémii, eliminujú vznik zubného kazu, sú vhodné pre diabetikov a pri redukčných dietetických opatreniach. Žiadne sladidlo však nie je dokonalé a uplatniteľné vo všetkých použitiach. Dokonca ani zlatý štandard sladkej chuti – sacharóza, nie je vhodná pre všetky lieky a potraviny. Práve preto sa vedci a potravinári už vyše sto rokov, s vrcholom posledných troch desaťročí, venujú alternatívnym sladidlám. Ideálne sladidlo by malo byť rovnako sladké ako sacharóza, bez farby a vône. Dôležitá je tiež rozpustnosť vo vode, stabilita v širokom rozmedzí teplôt, počas skladovania a stabilita v kyslom a zásaditom prostredí. Sladidlo by malo mať čistú, príjemnú sladkú chuť, ktorú človek na jazyku okamžite rozpozná a pri tom nevyvolá následnú nepríjemnú pachuť. Čím viac sa sladidlo chuťou a fyzikálno-chemickými vlastnosťami podobá sacharóze, tým väčšia je jeho prijateľnosť v priemysle, ale aj u samotných spotrebiteľov. Daná zlúčenina musí byť kompatibilná s rôznymi ďalšími farmaceutickými či potravinovými zložkami. Je nevyhnutné aby sladidlo bolo bezpečné, netoxické a organizmom ľahko metabolizované alebo z neho vylúčené. Je taktiež vhodné aby bolo ľahko vyrábané, skladované, prepravované a malo prijateľnú cenu (O'Brien-Nabors, 2012).

Vnímanie sladkej chuti závisí od viacerých faktorov. Patrí k nim koncentrácia samotného sladidla, fyzikálno-chemické vlastnosti prostredia, v ktorom je dispergované, teplota sladeného prípravku, pH, ďalšie aditíva a citlivosť degustátora. V tabuľke č. 1 sú uvedené približné hodnoty relatívnej sladivosti mnohých sladko chutiacich látok (O'Brien-Nabors, 2012).

Tabuľka č. 1 Látky sladkej chuti a ich relatívna sladivosť

Sladidlo	**Sladivosť (Sacharóza = 1)**	**Sladidlo**	**Sladivosť (Sacharóza = 1)**
Laktitol	0,4	Glycyrrhizín	50 – 100
Polyglycitol maltitolový sirup	0,4 – 0,9	Aspartám	180
Izomalt	0,45 – 0,65	Extrakt z mníškeho ovocia (*Lo han guo fruit extract*)	180
Izomaltulóza	0,48	Acesulfám draselný	200
Sorbitol	0,6	Sacharín	300 – 500
Erytritol	0,7	Glykozidy stévie	300
Manitol	0,7	Sukralóza	600
Maltitol	0,9	Hernandulcín	1.000
Tagatóza	0,9	Monelín	1.500 – 2.000
Xylitol	1,0	Neohesperidín dihydrochalkón	1.800
Glukózo-fruktózový sirup (55 % fruktóza)	1,0	Alitám	2.000
Glukózo-fruktózový sirup (90% fruktóza)	1,0 +	Taumatín	2.000 – 3.000
Fruktóza	1,2 – 1,7	Neotám	8.000
Cyklamát	30	Advantám	20.000

Zdroj: O'Brien-Nabors, 2012

Nekalorické (non-nutritívne) sladidlá majú vysokú sladivosť a nízku alebo zanedbateľnú energetickú hodnotu. Zaujímavosťou je, že mnohé z nich nemajú schopnosť aktivovať dopamínové dráhy, čím sa užívateľovi nedostáva pocit uspokojenia chuti na sladké a preto takýto človek môže nutkavo vyhľadávať vysoko kalorické sladké jedlá. K najznámejším nekalorickým sladidlám patrí acesulfám draselný (E950), aspartám (E951), cyklamát (E952), sacharín (E954), sukralóza (E955), taumatín (E957), neohesperidín dihydrochalkón (E959), glykozidy stévie (E960), neotám (E961), soľ aspártamu-acesulfámu (E962) a advantám (E969).

1.1 Acesulfám draselný

Acesulfám draselný (acesulfám K) objavili Clauss a Jensen v roku 1967 v spoločnosti Hoechst (dnes Nutrinova). Bol vyhodnotený ako bezpečný a v roku 1988 aj schválený americkým Úradom pre kontrolu potravín a liečiv (FDA). Jedná sa o draselnú soľ 6-metyl-1,2,3-oxatiazín-4(3H)-ón-2,2-dioxidu, ktorej sladivosť je v porovnaní so sacharózou približne 200-krát vyššia (Smith et al., 2025). Má vzhľad bieleho kryštalického prášku, je bez zápachu. Je veľmi dobre rozpustný vo vode (270 g/ l pri 20 °C) a o niečo menej v alkohole. Je stabilný aj pri vyšších teplotách s bodom topenia nad 200 °C. Pri termickom rozklade z neho vzniká acetón, oxid uhličitý, síran amónny a sulfamid. Má veľmi dlhú trvanlivosť, odoláva nízkemu pH a preto je vhodný aj do veľmi kyslých sýtených nápojov. Začiatok jeho sladkej chuti prichádza rýchlo, no netrvá dlhšie než samotná chuť jedla. V tele sa rýchlo vstrebáva, nepodlieha metabolizácii (čo potvrdzuje jeho charakter neenergetického sladidla), nevyvoláva glykemickú odpoveď a v nezmenenej forme sa vylučuje močom. Biologický polčas je 2 – 2,5 hodiny (Johnson and Lee, 2024). Používa sa vo viacerých druhoch potravín vrátane diabetických výrobkov, žuvačiek, nealkoholických nápojov, cukroviniek, mrazených krémov, majonézy a horčice. Vďaka vysokej tepelnej stabilite je vhodný v cukrárskej a pekárskej výrobe. Nachádza sa aj v liekoch, kozmetike, produktoch ústnej hygieny a krmivách pre zvieratá. Pre dospelého človeka je hodnota prijateľného denného príjmu (ADI – *Acceptable Daily Intake*) 15 mg/ kg telesnej hmotnosti na deň (FDA, 2025; JECFA, 2007). Aacesulfám draselný nie je teratogénny, mutagénny, karcinogénny ani toxický pri bežne užívaných dávkach. *In vivo* experimenty naznačili, že vysoké dávky (ekvivalent 10 g pre dospelého človeka) môžu mierne zvyšovať sekréciu inzulínu. Hoci obsahuje draslík, jeho konzumácia nemá vplyv na hladinu draslíka v organizme (Kim et al., 2012; Johnson and Lee, 2024).

1.2 Aspartám

Aspartám patrí k najznámejším náhradným sladidlám so sladivosťou 200 násobne vyššou ako je to pri sacharóze (Marinovich et al., 2013). Táto látka sa v súvislosti s dopadmi na zdravie niekedy stáva predmetom sporov a špekulácií. Bola objavená v roku 1965 pri štúdiu liečiv s antiulceróznou aktivitou (Butchko et al., 2002). Vo funkcii sladidla bol aspartám schválený v roku 1983 FDA. Dnes sa široko používa v nízkoenergetických potravinách a nápojoch a ako korigens chuti v rôznych perorálne aplikovaných liekoch a kozmetikách slúžiacich na ústnu hygienu. Z chemického hľadiska sa jedná o metylester dipeptidu zloženého z dvoch aminokyselín a síce z kyseliny L-asparágovej a L-fenylalanínu (Sun et al., 2014). Má podobu bieleho kryštalického prášku, s relatívne nižšou termostabilitou. Kvôli tomu sa nesmie používať pri pečení a technológii ktorá využíva vyššie tepoty. Tento dipeptid sa rozkladá na príslušné aminokyseliny pri teplote nad 196 °C a tým sa eliminuje jeho sladká chuť (Kumari et al., 2016). Jeho energetická hodnota je 16 kJ/ g, je prakticky zanedbateľná. V ľudskom organizme sa metabolizuje na fenylalanín a preto je jeho používanie kontraindikované pri osobách trpiacich fenylketonúriou. Procesom metabolizácie sa taktiež uvoľňuje malé množstvo toxického metanolu. Pri dlhodobom skladovaní, obzvlášť pri vyšších skladovacích teplotách (cca 40 °C), procesom hydrolýzy metylesterovej časti molekuly dochádza k poklesu sladkej chuti. Aspartám je práve kvôli potenciálnym zdravotným rizikám jedno z najviac testovaných aditív. Súčasné klinické údaje potvrdzujú, že pri povolených množstvách je bezpečný. Je však nutné poznamenať, že konzumácia extrémne veľkého množstva aspartamom sladených potravín môže vyústiť k prekročeniu bezpečnostných limít pre príjem metanolu. Štúdia (Abhilash, 2013) ukázala tiež negatívny vplyv dlhodobej konzumácie na nervový systém potkanov. Medzinárodná agentúra pre výskum rakoviny (IARC) považuje aspartam za možný karcinogén, čo signalizuje potrebu ďalšieho výskumu.

1.3 Cyklamát

Cyklamát je alternatívne sladidlo, ktorého sladivosť je v porovnaní so sacharózou 30 – 50 násobne vyššia. Má charakter sodnej alebo vápenatej soli kyseliny cyklámovej resp. cyklohexánsulfámovej. Vyniká nízkou cenou a stabilitou pri zahrievaní (Chattopadhyay et al., 2014). Európska únia ho považuje za bezpečný, no v niektorých krajinách ako napr. v USA, Južnej Kórei a Bangladéši je jeho používanie zakázané. Cyklamát bol objavený v roku 1937 na University of Illinois študentom Michaelom Svedom, ktorý pracoval v laboratóriu na syntéze antipyretík. Keď si pri práci na stole odložil cigaretu a vzápätí ju vzal späť do úst, objavil sladkú chuť cyklamátu. V roku 1958 ho americká FDA označila za tzv. GRAS – *Generally Recognized As Safe* (všeobecne považovaný za bezpečný) a táto zlúčenina sa začala predávať v tabletovej forme ako alternatívne stolové sladidlo. V roku 1966 sa objavila prvá štúdia (Druckey, 1966), ktorá uviedla, že niektoré črevné baktérie dokážu desulfonovať cyklamát na cyklohexylamín, zlúčeninu podozrivú z chronickej toxicity u zvierat (karcinóm močového mechúra u potkanov). Nakoľko podobné štúdie začali pribúdať, v roku 1970 FDA v USA úplne zakázala cyklamát vo všetkých potravinách a liekoch. V roku 2000 bol publikovaný článok (Melnick, 2000) popisujúci výsledky 24-ročného experimentu na opiciach a karcinogenita cyklamátu sa nepotvrdila ani pri užívaní vysokých dávok (500 mg/ kg cyklamátu denne). Látka zároveň neprejavila žiadne schopnosti alterovať DNA. Agentúra IARC považuje karcinogenitu cyklamátu za nepreukázanú.

1.4 Sacharín

Sacharín alebo cukerín je iný názov pre 2H-1λ^6,2-benzotiazol-1,1,3-trión, ktorý v roku 1878 vynašiel chemik Constantin Fahlberg, ktorý si zlúčeninu nechal aj patentovať. Táto látka sa vyznačuje intenzívnou sladkou chuťou, ktorá je pri porovnaní so sacharózou približne 500-krát vyššia. Po svojom objavení sa okamžite stal veľmi žiadaný a dokonca v 19. storočí v Rakúsko-Uhorsku predstavoval nedostatkový a často pašovaný tovar. Sacharín vzniká ako odpadný produkt pri spracovaní uhlia, no v súčasnosti sa synteticky vyrába z toluénu. Je to biela kryštalická látka bez výrazného zápachu. Vo vode je čistý sacharín prakticky nerozpustný a v etanole sa rozpúšťa len mierne. Nakoľko sa jedná o kyslú zlúčeninu, ľahko vytvára so zásadami vo vode veľmi dobre rozpustné soli. V praxi sa najčastejšie používa jeho sodná soľ. Spolu s aspartamom patrí k najpoužívanejším nízkoenergetickým sladidlám. Pridáva sa do potravín, nápojov, kozmetík a farmaceutických prípravkov ako korigens chuti. K výhodám bezpochyby patrí nízka cena, ktorú na druhej strane vyvažuje jeho nepríjemná dlhotrvajúca horkastá pachuť. Začiatkom 70-tych rokov 20. storočia začala byť spochybňovaná zdravotná nezávadnosť sacharínu a často sa u konzumentov dával sacharín do súvisu so zvýšenou incidenciou karcinómu močového mechúra (Weihrauch, 2004). Podľa najnovších vedeckých poznatkov sacharín a jeho soli nevykazujú toxické, karcinogénne, mutagénne ani teratogénne účinky. Podľa odporúčaní Svetovej zdravotníckej organizácie (WHO) je ADI 0 – 5 mg/ kg na deň (Markus, 2024).

1.5 Sukralóza

Ďalším alternatívnym sladidlom je sukralóza. Považuje sa na bezkalorickú pretože ju organizmus prakticky nedokáže metabolizovať. Zároveň neovplyvňuje glykémiu ani inzulinémiu a nespôsobuje vznik zubného kazu. Vyznačuje sa približne 600 násobne vyššou sladivosťou ako je tomu u bežného repného cukru. Štrukturálne sa radí medzi cukorné deriváty pretože jej molekula je tvorená molekulou sacharózy substituovanou chlórom v polohách 1′,4 a 6′. Je termostabilná a svoju stálosť si zachováva aj v širšom rozpätí pH hodnôt (Gujral et al., 2021). Sukralóza už síce bola nasyntetizovaná v roku 1976, ale prvýkrát sa do praxe dostala až v roku 1991 v Kanade a v EÚ až v roku 2004. Európsky úrad pre bezpečnosť potravín (EFSA) a americká FDA považujú sukralózu za bezpečnú pri množstve 9 mg/ kg telesnej hmotnosti za deň. Vedľajšie účinky sukralózy (plynatosť, hnačka, narušenie črevného mikrobiómu) sa začínajú objavovať až pri konzumácii viac než 1 500 mg/ kg telesnej hmotnosti za deň. Sukralóza sa z väčšej miery do organizmu nevstrebáva a vylučuje sa stolicou v nezmenenom stave. Cez gastrointestinálny trakt sa resorbuje 11 – 12 % pričom z celého resorbovaného množstva sa väčšina (98 – 92 %) vylúči močom v nezmenenom stave (Ruiz-Ojeda, 2019). Existujú výskumy, ktoré naznačujú istý vzťah medzi prijímaním sukralózy a poškodením črevnej mikroflóry, čo sa môže prejaviť tráviacimi ťažkosťami. Bezkalorická sukralóza sa často kombinuje s ďalšími alternatívnymi sladidlami napr. dextrózou či maltodextrínom, ktorým sa už energetická hodnota pripisuje. Je dobré poznamenať, že mnohé organizmy v životnom prostredí nemajú schopnosť sukralózu rozkladať a taktiež sa tento halogenovaný cukorný derivát ťažko odstraňuje v čističkách odpadových vôd. V súčasnosti nie sú zatiaľ známe žiadne ekotoxické účinky, avšak existuje riziko kumulácie tejto látky v prírode. Extrémne vysoké teploty (>350 °C) môžu zo sukralózy uvoľňovať polychlórované dibenzo-p-dioxíny a iné perzistentné organické látky znečisťujúce životné prostredie (Tkach, 2025).

1.6 Taumatín

Taumatín alebo talín je proteín, ktorý disponuje sladkou chuťou, no častejšie než samotné sladidlo sa využíva ako nekalorický modifikátor chuti (EFSA Panel on Food Additives and Flavourings, 2021). Taumatín sa skladá z jedného polypeptidového reťazca a obsahuje 207 aminokyselinových zvyškov. Existuje v dvoch izoformách ako taumatín I a taumatín II, ktoré sa líšia v niekoľkých aminokyselinových pozíciách. Ide o vysoko homológne proteíny s molekulovou hmotnosťou okolo 22 kDa. Za chuť taumatínu zodpovedá schopnosť interagovať s receptorom TAS1R3, ktorý je prítomný u ľudí a niektorých druhov opíc (Suess et al., 2014). Mnohým živočíchom táto zlúčenina vôbec nechutí sladko. Taumatíny boli prvýkrát izolované z plodov rastliny *Thaumatococcus daniellii* Benth. z čeľade *Marantaceae*, ktorá je rozšírená v západnej Afrike. Plody, pôvodným obyvateľstvom označované ako *„katemfe“*, sa lokálne pestujú a používajú na dochucovanie jedál. Taumatín síce má sladkú chuť, ale tá sa výrazne líši od chuti sacharózy. Jeho sladkosť sa rozvíja pomaly a jej vnímanie trvá dlho, pričom na jazyku zanecháva sladkastú pachuť pripomínajúcu sladké drievko. Taumatín je dobre rozpustný vo vode, je termostabilný a odoláva aj kyslému prostrediu. Veľmi rýchlo a ľahko kryštalizuje v prítomnosti kyseliny vínnej a preto sa zmesi taumatínu s vínanmi často používajú ako modelové systémy na štúdium kryštalizácie proteínov. Taumatín má pre rastlinu pravdepodobne ochrannú funkciu. Jeho produkcia je v rastline indukovaná rôznymi patogénmi a zvyšuje odolnosť rastliny na stres. V podmienkach *in vitro* u niektorých druhov húb a plesní dokáže inhibovať rast hýf a tvorbu spór. Komerčné extrakty z plodov sa začali hromadne vyrábať v 70. rokoch 20. storočia. Neskôr bol taumatín schválený ako sladidlo v Európskej únii, Izraeli a Japonsku. V Spojených štátoch má síce štatút GRAS, ale ako ochucovadlo a nie ako sladidlo. Nevýhodou taumatínu je, že môže pôsobiť alergizujúco (EFSA Panel on Food Additives and Flavourings, 2021).

1.7 Neohesperidín dihydrochalkón

Neohesperidín dihydrochalkón, synonymicky neohesperidín DC alebo NHDC, je látka sladkej chuti produkovaná citrusmi (De Pooter et al., 1997). Je vhodná na maskovanie nepríjemnej horkej chuti rôznych iných zlúčenín. Priemyselne sa vyrába semisynteticky z neohesperidínu, izolovaného z oplodia citrusových plodov, ktorý sa katalyticky hydrogenuje v zásaditom prostredí. Neohesperidín dihydrochalkón bol objavený v 60. rokoch 20. storočia v USA, kde sa testovali rôzne technologické procesy na zníženie horkosti džúsu odšťavených citrusov (Nakamura et al., 2010). Jedná sa o biely prášok intenzívnej sladkej chuti. Táto zlúčenina u ľudí agonizuje receptory TAS1R2 a TAS1R3, zodpovené za vnímanie sladkej chuti. Udáva sa, že je 1 500 až 1 800-krát sladší ako sacharóza, pričom jeho sladivosť je závislá od pH produktu, v ktorom sa používa (Horáček, 2000). Nevýhodou je oneskorený nástup sladkej chuti a pomerne dlho pretrvávajúci nepríjemný sladkastý pocit na jazyku. Na druhej strane je pri výhodách možné spomenúť stabilitu pri vyšších teplotách a vo veľmi kyslom prostredí. Pri optimálnych podmienkach skladovania zlúčenina vykazuje trvanlivosť až 5 rokov. Toto alternatívne sladidlo vykazuje silný synergický účinok v kombináciách s inými sladidlami akými sú aspartám, sacharín, acesulfám draselný, cyklamát či viaceré cukorné alkoholy. Neohesperidín dihydrochalkón nie je toxický, mutagénny ani karcinogénny a v štátoch EÚ je od roku 1994 schválený ako sladidlo a dochucovadlo. Zároveň je zaradený v Európskom a Americkom liekopise ako farmaceutická pomocná látka. ADI bol stanovený na 20 mg/ kg telesnej hmotnosti na deň. Bežne sa s touto látkou stretneme v potravinách v úlohe modifikátora chuti v koncentrácii 4 – 5 ppm a sladidla v koncentrácii 15 – 20 ppm. Vo farmaceutickej technológii je to obľúbené aditívum na zníženie horkosti niektorých liečiv.

1.8 Glykozidy stévie

Glykozidy stévie sú obsahové látky juhoamerickej rastliny – stévia cukrová (*Stevia rebaudiana* Hemsl.) z čeľade *Asteraceae*, ktoré zodpovedajú za jej sladkú chuť. V listoch je zastúpený steviozid (5 – 10 %), dulkozid A (0,5 – 1 %), rebaudiozid A (2 – 4 %), rebaudiozid C (1 – 2 %), rebaudiozid D, rebaudiozid E, rebaudiozid F, rubusozid a steviolbiozid. V súvislosti so stéviou sa často spomína aj rebaudiozid B, no ukázalo sa, že táto látka priamo v rastline nie je obsiahnutá a často vzniká v laboratórnom procese pri izolácii glykozidov. Mnohé zo spomenutých obsahových látok stévie cukrovej sa vyskytujú aj v príbuznom druhu *Stevia phlebophylla* Gray z čeľade *Asteraceae* a v rastline *Rubus chingii* Hu z čeľade *Rosaceae* (Kinghorn et al., 2002). Glykozidy stévie majú 30 až 300-krát vyššiu sladivosť ako sacharóza. Vyznačujú sa stabilitou pri termickom zaťažení (až do200 °C), v širokom spektre pH a prítomnosti viacerých enzýmov. Tieto látky pri užívaní nevyvolávajú glykemickú odpoveď a tvorbu zubného kazu. V EÚ sú schválené od roku 2011 a hodnota ADI vyjadrená v ekvivalentoch steviolu je stanovená na 4 mg/ kg telesnej hmotnosti na deň. Používajú sa ako bezkalorická náhrada cukru v potravinách, nápojoch a liekoch (Goyal et al., 2010). Hlavnou nevýhodou je ich pachuť po sladkom drievku (pelendreku), ktorú je ale možné maskovať kombináciou s inými sladidlami najmä erytritolom. Týmto látkam sa nepripisuje toxicita, mutagenita či karcinogenita (Brusick et al., 2010).

1.9 Neotám

Neotám je analóg aspartámu a radí sa medzi alternatívne sladidlá bez kalórií. Jedná sa o sekundárny amín, konkrétne 3,3-dimetylbutylamín aspartámu. Bol vynájdený francúzskymi vedcami Claudom Nofrem a Jeanom-Mariom Tintim, ktorí si ho nechali patentovať v USA v roku 1992. Udáva sa, že je 8 000-krát sladší ako sacharóza. Výhodou je, že nemá výraznú nežiaducu chuť a skôr pôsobí ako zvýrazňovač chuti ďalších zložiek v potrave (Nofre a Tinti, 2000). Môže sa používať samostatne, ale často sa mieša s inými sladidlami na zvýšenie ich sladivosti a elimináciu nežiaducich pachutí akými sa vyznačuje napr. sacharín. Je chemicky o niečo stabilnejší ako aspartám a jeho použitie je ekonomickejšie, pretože sa ho vyžaduje menšie množstvo. Hodí sa do sýtených nealkoholických nápojov, sladkých jedál, žuvačiek, ale aj ako stolové sladidlo do horúcich nápojov (káva, čaj) a na maskovanie horkosti liečiv. V roku 2002 ho v USA schválila FDA ako nenutričné sladidlo a zvýrazňovač chuti. V roku 2010 bol schválený aj v EÚ a v mnohých ďalších krajinách. Jeho metabolizmus je pomerne rýchly, bez kumulácie v tele (Flamm, 2003; Mayhew, 2003). Jedným z produktov metabolizácie je síce toxický metanol, no nakoľko sa jedná len o stopové množstvá, nepredstavuje zdravotné riziká. Táto látka je bezpečná pre diabetikov 2. typu a pacientov s fenylketonúriou. Hodnota ADI v USA predstavuje 0,3 mg/ kg telesnej hmotnosti na deň a v EÚ je to až 2 mg/ kg telesnej hmotnosti na deň. Látka nevykazuje známky mutagenity ani karcinogenity (Flamm, 2003).

1.10 Soľ aspártamu-acesulfámu

Soľ aspartámu-acesulfámu je nekalorické „umelé" sladidlo s 350-krát vyššou sladivosťou ako sacharóza (Fry a Van Soolingen, 1995). Objavila ho holandská spoločnosť Holland Sweetener Company (HSC) v Maastrichte v roku 1995 počas výskumu derivátov aspartámu vedcami J. C. Fryom a J. Van Soolingenom. Vyrába sa zmiešaním zmesi aspartámu a acesulfámu draselného v pomere 2:1 a následným okyslením, kedy dochádza ku kryštalizácii tejto soli (Silva et al., 2007). Ako sladidlo bola táto zlúčenina schválená v roku 2000. Má podobu bieleho nehygroskopického prášku bez zápachu, s nízkou rozpustnosťou vo vode (2,75 % pri 21 °C) a miernou rozpustnosťou v etanole. V EÚ sa používa v nápojoch, mliečnych dezertoch a cukrovinkách v limite odvodenom z noriem pre aspartám a acesulfám draselný, pričom produkty musia niesť varovanie o zdroji fenylalanínu.

1.11 Advantám

Advantám je analóg aspartámu s približne 20 000-krát vyššou sladivosťou ako sacharóza. Je to sekundárny amín aspartámu a 3-(3-hydroxy-4-metoxyfenyl)propánu. Priemyselne sa syntetizuje z aspartámu a vanilínu. Má sladkú, dlhotrvajúcu chuť bez výraznej pachuti. Vykazuje chemickú stabilitu a širokú kompatibilitu pri kombinovaní s inými sladidlami. Používa sa predovšetkým v potravinárstve. V Európskej únii bol schválený v roku 2013 a následne v USA v roku 2014 ako nenutričné sladidlo a zvýrazňovač chuti. Hodnota ADI je podľa FDA definovaná na 32,8 mg/ kg telesnej hmotnosti na deň a podľa noriem EÚ je to až 500 mg/ kg na deň. Zlúčenina má vzhľad bieleho prášku s vysokou stabilitou a malou rozpustnosťou vo vode (0,99 g/ l pri 25 °C), pričom jej rozpustnosť s teplotou rastie. V tele sa metabolizuje a k metabolitom patrí aj zanedbateľné množstvo metanolu (O'Brien-Nabors, 2012).

1.12 Kombinácie

Sladidlá sa často používajú v kombináciách, nakoľko ich zmesi majú prirodzenejšiu chuť, lepšiu rozpustnosť či stabilitu. Často platí, že dve sladidlá v kombinácii majú navzájom synergický efekt, teda celková sladivosť kombinácie je väčšia ako súčet samotných zložiek a vo výsledku sa tak použije celkovo menšie množstvo týchto látok. S obľubou sa tak používa zmes aspartámu a sacharínu alebo aspartámu a acesulfámu draselného, prípadne sukralózy a aspartámu. V 60-tych rokoch sa začala používať zmes cyklamátu a sacharínu. Hlavnou výhodou tejto zmesi bolo, že sacharín (300-krát sladší ako sacharóza) potencoval sladkú chuť cyklamátu (30-krát sladší ako sacharóza) a cyklámat maskoval nepríjemnú dochuť spojenú so sacharínom. Existujú aj trojzložkové zmesi, kde vystupuje napr. acesulfám draselný, aspartám a sacharín alebo aspartám, cyklámat a acesulfám draselný (O'Brien-Nabors, 2012).
V oblasti sladko chutiacich látok majú taktiež dôležité zastúpenie nízkokalorické sladidlá t.j. polyoly resp. cukorné alkoholy. Tie sa v porovnaní so sacharózou vyznačujú výrazne nižšou energetickou hodnotou. Patrí k nim napr. erytritol (E968), polyglycitol (E964), izomalt (E953), laktitol (E966), maltitol (E965), manitol (E421), sorbitol (E420) a xylitol (E967). Keďže tieto sladidlá (s výnimkou xylitolu), nie sú také sladké ako cukor, používajú sa v kombinácii s inými nekalorickými sladidlami. Polyoly majú v kombináciách zvyčajne charakter plnív. Ostatným sladidlám poskytujú objem, ktorý im chýba. Miešajú sa s inými látkami tak, aby výsledná zmes disponovala rovnakou sladivosťou ako sacharóza (O'Brien-Nabors, 2012).

ZÁVER

Všetky sladidlá sú pred svojim zavedením a použitím vo farmaceutickom či potravinárskom priemysle dôkladne preštudované a preverované mnohými vedeckými a regulačnými orgánmi po celom svete. Na úrovni Európskej únie zodpovedá za vedecké posúdenie bezpečnosti sladidiel *Európsky úrad pre bezpečnosť potravín* (EFSA), ktorý hodnotí riziká pred ich zaradením do zoznamu povolených prídavných látok podľa nariadenia (ES) č. 1331/2008. Európska komisia na základe stanovísk EFSA vydáva povolenia a aktualizuje zoznamy povolených sladidiel. Každé sladidlo má stanovený akceptovateľný denný príjem (ADI), ktorý zaručuje bezpečnosť pri dlhodobom užívaní.

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MOŽNOSŤ PODPORY ZDRAVÉHO ŽIVOTNÉHO ŠTÝLU VO VYBRANEJ SKUPINE POPULÁCIE OD 19 DO 26 ROKOV

OPPORTUNITY TO SUPPORT A HEALTHY LIFESTYLE IN A SELECTED POPULATION GROUP AGED 19 TO 26 YEARS

Štefánia Laca Megyesi, Veronika Kmeťková, Samuel Hajnik, Patrik Hermanovský

Abstrakt

V predloženom príspevku chceme poukázať na problematiku vzniku obezity a dôležitosť preventívnej zdravotnej starostlivosti v intervencii pacientov s obezitou, v súvislosti s nezdravým životným štýlom, nízkou pohybovou aktivitou a ďalšími kritickými aspektami životného štýlu mladých ľudí na Slovensku vo veku 19 až 26 rokov. Výsledky práce sme získavali zo spracovania údajov Národného centra zdravotníckych informácií (NCZI). Vo všeobecných ambulanciách pre dospelých, a tiež pre deti a dorast bolo v roku 2023 sledovaných 4749 pacientov vo veku 19 - 26 rokov, s diagnostikovanou obezitou a inou nadmernou výživovou, čo oproti roku 2008 predstavuje nárast o viac ako 24 %. Nadváha a obezita významne ohrozuje zdravie verejnosti a ich efektívna prevencia a liečba je komplexná a náročná.

Kľúčové slová: *obezita, prevencia, životný štýl*

Abstract

In the presented work, we want to highlight the issue of the development of obesity and the importance of preventive health care in interventions for patients with obesity, in connection with unhealthy lifestyle, low physical activity, and other critical lifestyle aspects of young people aged in Slovakia from 19 to 26 years. The results of the study were obtain from the analysis of data from the National Health Information Center (NCZI). In general, ambulance for adults, as well as for children and adolescents, were monitored in 2023 with diagnosed obesity and other forms of overnutrition 4,749 patients in age 19–26 years, which represents with compare to 2008, increase of more than 24%. Overweight and obesity pose a significant threat to public health and their effective prevention and treatment are complex and demanding.

Key words: *obesity, prevention, lifestyle*

1 ÚVOD

V septembri 2012 odsúhlasilo 53 členských štátov Európskeho regiónu WHO nový politický rámec s názvom Zdravie 2020. Jednou z hlavných oblastí bola orientácia na zdravie počas celého životného cyklu a vytváranie optimálnych možností pre posilnenie zodpovednosti obyvateľov za svoje zdravie. Podpora dobrého zdravotného stavu obyvateľov vedie k zvýšeniu predpokladanej dĺžky života a následne k úspore ekonomických nákladov spojených s liečbou na spoločenskej i individuálnej úrovni. Medzi neinfekčné ochorenia, na ktoré trpí a zomiera najviac Európanov, zaraďujeme diabetes, srdcovo-cievne ochorenia, onkologické ochorenia a chronické choroby dýchacieho systému. Všetky uvedené ochorenia majú priamu spojitosť so životným štýlom a obezitou (Lieskovská et al. 2018).

Prevalencia obezity od roku 1980 sa v Európe strojnásobila. Tento nárast je sprevádzaný aj nárastom chronických neprenosných ochorení. Súčasné výskumy poukazujú na fakt, že v Európskej únii dochádza ročne k približne 2,8 miliónom úmrtí v dôsledku príčin súvisiacich s nadváhou a obezitou (WHO 2011). Výsledky štúdie European Health Examination Survey (EHES) poukázali na fakt, že v roku 2011 na Slovensku vo vekovej skupine od 18 do 64 rokov trpelo obezitou celkovo 25,6 % populácie. Najpočetnejšou skupinou boli obyvatelia vo veku 55 až 64 rokov (41,74 %) (EHES, 2011).
V oblasti verejného zdravia je dôležité apelovať na mladých ľudí prostredníctvom osvetovej a preventívnej činnosti, zameranej na zlepšenie a posilnenie zdravia. Preventívne intervencie zamerané na deti a mladých ľudí znamenajú návratnosť investícií v rámci liečebno-preventívnej starostlivosti približne o 6 až 10 %. Súčasný demografický vývoj v Európe s vyšším podielom staršej populácie naznačuje, že investície v rámci liečebno-preventívnej starostlivosti budú naďalej narastať (Heckman et al. 2010). V oblasti výchovy k zdraviu a pohybu zohrávajú školy, ako miesto kde mladí ľudia trávia značnú časť svojho času, významnú úlohu a školské zariadenia podporujú vytváranie pozitívneho vzťahu k zdraviu prospešným aktivitám (OECD 2023).
Vyvážená strava, dostatočný pohyb a spánková hygiena sú nevyhnutné pre udržanie normálnej hmotnosti s BMI 18,5 – 24,9. Približne každý šiesty Slovák je ohrozený chudobou. Len polovica Slovákov si môže dovoliť konzumovať ryby, mäso alebo rastlinné zdroje bielkovín aspoň každý druhý deň. Práve finančná nedostatočnosť je jednou z prekážok v úprave životného štýlu a spôsobu stravovania (Timková et al. 2024).

2 METODIKA PRÁCE

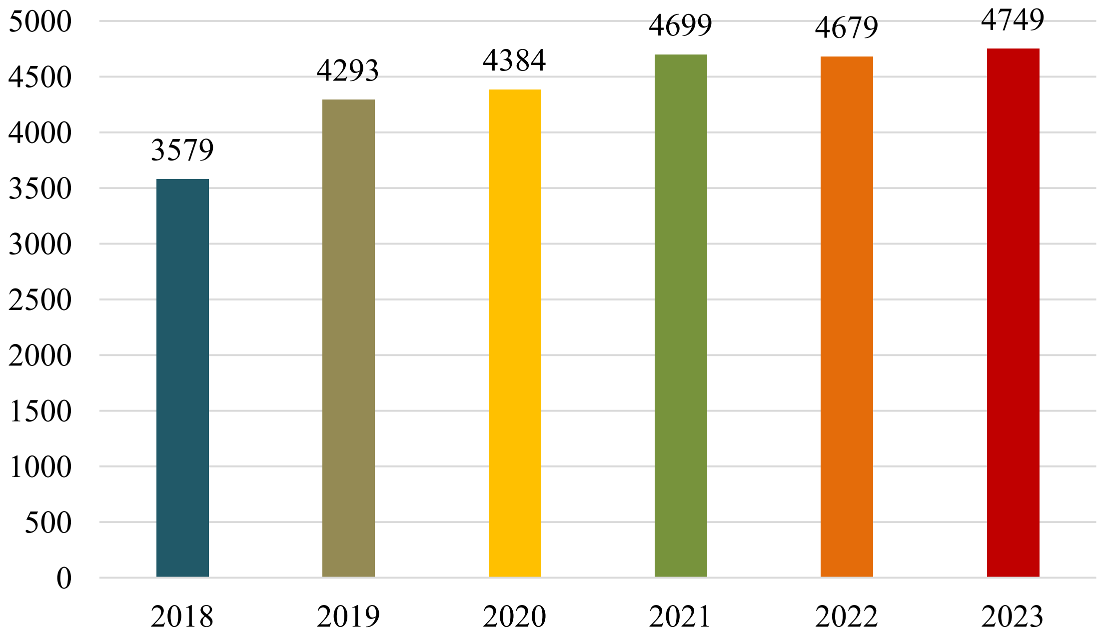
Dáta pre vypracovanie predloženej štúdie sme získavali analýzou štatistických výstupov Národného centra zdravotníckych informácií (NCZI). Získané údaje za obdobie rokov 2018 až 2023 sme zosumarizovali, vyhodnotili a graficky spracovali pomocou program MS Word a MS Excel.

3 VÝSLEDKY A DISKUSIA

3.1 Počet osôb vo veku 19-26 rokov s diagnózou Obezity za obdobie 2018 - 2023

K vypracovaniu predloženej štúdie sme použili údaje zo Zdravotníckych ročeniek NCZI v období rokov 2018 až 2023. Vyselektovali sme súbor osôb vo veku 19 – 26 rokov, v kategórii diagnóz obezita a iná nadmerná výživa (E65-E68, podľa MKCH-10). Výsledky našej štúdie poukazujú na fakt, že na Slovensku možno pozorovať narastajúci trend v počte prípadov mladých ľudí trpiacich obezitou, viď graf č. 1. Najvyšší počet pacientov (4749 osôb) vo veku 19 až 26 rokov, sledovaných v ambulancii všeobecného lekára pre deti a dorast s potvrdenou diagnózou obezity a inej nadmernej výživy, sme zaznamenali v roku 2023. V porovnaní s rokom 2018 došlo v roku 2023 k výraznému zvýšeniu celkového počtu sledovaných pacientov trpiacich obezitou, a to o viac ako 24,6 % (NCZI 2018, NCZI 2023).

Graf č. 1 Počet osôb vo veku 19-26 rokov s diagnózou: Obezita a iná nadmerná výživa podľa údajov NCZI v období 2018 - 2023



3.2 Kritické aspekty zdravého životného štýlu mládeže od 19 do 26 rokov

Incidencia nových prípadov nadváhy a obezity v sledovanej skupine mladých ľudí má nielen na Slovensku, ale aj v ostatných stredoeurópskych krajinách neustále rastúcu tendenciu. A to v dôsledku nedostatočnej fyzickej aktivity, nadmernej sedavosti a nezdravých stravovacích návykov. Klinicky je nadváha a obezita obvykle spojená s metabolickými, kardiovaskulárnymi a psychickými komorbiditami, ako aj predčasnou úmrtnosťou v dospelosti. Etiológiu ochorenia, akým je obezita a nadváha, je potrebné skúmať najmä z hľadiska kritických aspektov a skôr ako ich farmakologická a invazívna liečba je vhodná včasná prevencia a zameranie sa na rizikové aspekty životného štýlu, viď obrázok č. 1 (OECD 2023).

Jedným z hlavných ukazovateľov zdravého životného štýlu mládeže je úroveň fyzickej aktivity, ktorej nedostatok spolu s nevhodným stravovaním predstavujú rizikové faktory pre vznik srdcovo-cievnych ochorení. Svetová zdravotnícka organizácia odporúča vykonávať 150 až 300 minút týždenne aeróbnu pohybovú aktivitu miernej intenzity (Strain et al. 2024). Podľa výsledkov štatistických zisťovaní z roku 2019 sa cvičeniu venuje len 31 % Slovákov, čo je mierne pod európskym priemerom. Rozdiely v pohybovej činnosti sú najmä v závislosti od veku a pohlavia. V priemere športuje aspoň 150 minút týždenne viac mužov ako žien. Uvedený podiel stúpa aj s vyššou úrovňou vzdelania a príjmu. Naopak s rastúcim vekom klesá počet Slovákov, ktorí vykonávajú aspoň 150 minút športovej aktivity (NBS 2022).

Guthold a kolektív (2020) v štúdii vykonanej na 1,6 milióna účastníkoch vo veku 11 až 17 rokov, uvádza, že až 4 z 5 školopovinných adolescentov mali nedostatočnú fyzickú aktivitu. Z výsledkov uvedenej štúdie vyplýva, že vízia WHO znížiť fyzickú inaktivitu mladých ľudí do roku 2030 o 15 % je nereálna, nakoľko tento trend spolu s nárastom počtu mladých pacientov s obezitou celosvetovo neustále stúpa (Guthold et al. 2020). Rovnako Strain a kol. uvádza, že výsledky ich analýzy poukazujú na celosvetovú prevalenciu fyzickej inaktívnosti mladých ľudí, ktorá sa z 26,4 % v roku 2010 zvýšila až na 31,3 % v roku 2022 (Strain et al. 2024).

Ďalším kritickým aspektom zdravého životného štýlu mládeže a mladých do 26 rokov sú nevhodné stravovacie návyky a nekvalitná strava. Práve stravovanie mladých ľudí na

Slovensku sa v posledných rokoch výrazne zhoršilo v porovnaní s krajinami OECD. Veľké riziko vzniku obezity, spánkových porúch a sociálnej izolácie môže byť spôsobené aj časom stráveným používaním digitálnych zariadení, čo následne negatívne ovplyvňuje psychické i fyzické zdravie detí a mládeže. Pre optimálne regulovanie využívania digitálnych zariadení a zodpovedné správanie sa na internete je nevyhnutný aj aktívny zásah rodičov a školských zariadení. Duševné zdravie detí a mladistvých na Slovensku sa podľa zdravotných štatistík neustále zhoršuje. Práve pandémia COVID-19 mala zásadný vplyv na zhoršenie zdravia, sociálnu izoláciu a dostupnosť zdravotnej starostlivosti. V roku 2022 došlo k najvýraznejšiemu nárastu nových prípadov duševných porúch, najmä vo vekovej skupine 15 – 19 rokov a na každých 10 000 obyvateľov Slovenska tejto vekovej kategórie pripadá 172,6 osôb s novou psychiatrickou diagnózou (NIVAM, 2024).

Obrázok č. 1 Kritické aspekty zdravého životného štýlu mládeže od 19 do 26 rokov

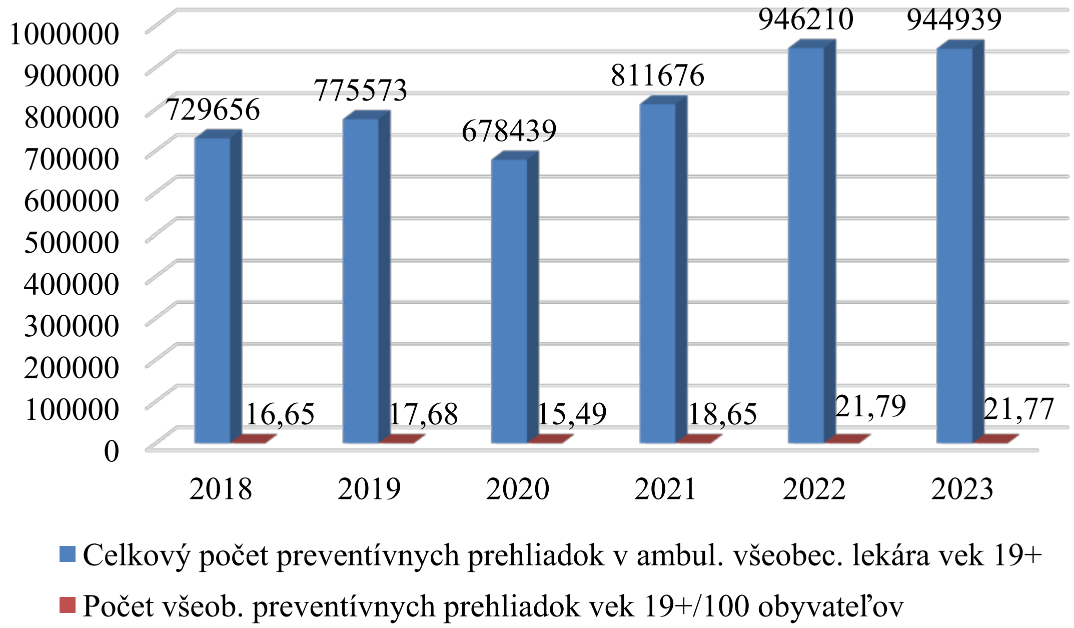
3.3 Využívanie preventívnej zdravotnej starostlivosti v období 2018-2023

Jedným z najúčinnejších nástrojov prevencie obezity je využívanie pravidelnej preventívnej zdravotnej starostlivosti. Z uvedeného dôvodu sme sa v našej štúdii zamerali na mieru využívania možnosti absolvovať preventívnu prehliadku u mladých ľudí od 19 do 26 rokov v období od roku 2018 do roku 2023. Preventívna prehliadka, ako ju definuje zákon č. 577/2004 Z. z., je zdravotná prehliadka osoby s náplňou preventívneho vyšetrenia. Periodicita a rozsah uhrádzaných preventívnych prehliadok z verejného zdravotného poistenia je stanovený zákonom o rozsahu zdravotnej starostlivosti uhrádzanej na základe verejného zdravotného poistenia, § 2 ods. 1 príslušného zákona. V roku 2023 všeobecní lekári poskytujúci zdravotnú starostlivosť o dospelých a v prípade osôb vo veku 19 – 26 rokov i pediatri poskytujúci všeobecnú starostlivosť o deti a dorast, vykonali celkovo 944 939 preventívnych prehliadok dospelých, čo predstavovalo 21,77 preventívnych prehliadok na 100 pacientov vo veku 19 a viac rokov (NCZI 2023).

Preventívne prehliadky detí a dorastu sú na Slovensku definované zákonom 577/2004 Z. z. a stanovené pre rôzne vekové skupiny v odlišnej periodicite. Periodicita preventívnej prehliadky osôb starších ako 18 rokov u všeobecných lekárov je zákonom stanovená raz za dva roky. Pri kumulatívnom vyjadrení za dvojročné obdobie rokov 2022 až 2023 absolvovalo preventívnu prehliadku 43,6 % obyvateľov vo veku 19 a viac rokov. V porovnaní s rokom

2018 ide o nárast viac ako 10,6 %, čo predstavuje najvýraznejší nárast záujmu Slovákov o preventívnu prehliadku oproti predchádzajúcim rokom. Najvyšší záujem v rámci preventívnej starostlivosti bol v Prešovskom kraji, kde lekári vykonali 152 788 preventívnych prehliadok. Naopak najnižší počet vykonaných preventívnych prehliadok bol v Trnavskom kraji (83 809 preventívnych prehliadok). V sledovanom období došlo k najvýraznejšiemu poklesu v počte vykonaných preventívnych prehliadok v pandemickom roku 2020. V tomto roku bol zaznamenaný medziročný pokles až o 3,42 bodu oproti hodnote 18,91 prehliadok pripadajúcich na 100 obyvateľov vo veku 19 a viac z roku 2019. Práve pozitívny trend v preventívnej starostlivosti odráža lepšie povedomie Slovákov o zdraví (NCZI 2018).

Graf č. 2 Počet preventívnych prehliadok dospelých vo veku 19+ v období 2018-2023



4 ZÁVER

V oblasti manažmentu obezity dospievajúcich a mladých ľudí do 26 rokov je potrebný ďalší výskum ich životného štýlu, stravovacích návykov a fyzickej aktivity. Taktiež je potrebná behaviorálna a psychologická analýza spojená s implemetáciou moderných intervenčných postupov do klinickej praxe. Zavedením moderných intervenčných postupov môžeme dosiahnuť celkové zlepšenie zdravia a zníženie vzniku možných zdravotných komplikácií spojených s nadváhou. Dôležitá je aj pravidelná preventívna starostlivosť a osveta zdravia a dlhodobo udržateľné zmeny životného štýlu mladých pacientov s obezitou, je nevyhnutné vnímať v osobnej, rodinnej, environmentálnej, sociálnej a inštitucionálnej rovine.

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HODNOTENIE KONCENTRÁCIE VITAMÍNU D PRED IMPLANTÁCIOU ENDOPROTÉZ

EVALUATION OF VITAMIN D CONCENTRATION PRIOR TO ENDOPROSTHESIS IMPLANTATION

Štefan Kóňa, Terézia Sedláčková, Nicholas Martinka

Abstrakt

Vitamín D reguluje homeostázu fosforu a vápnika a významne sa podieľa na regulácii kostného metabolizmu. Stimuluje tvorbu osteoblastovej kostnej matrice a optimalizuje proces remodelácie kostí. Súčasná epidémia nízkych koncentrácií vitamínu D je celosvetovým problémom - odhaduje sa, že približne 15% globálnej populácie má hladinu vitamínu D nižšiu ako 12ng/ml. V Európe trpí deficitom vitamínu D približne 40 % populácie, pričom koncentrácia je často nižšia ako 20ng/ml. U pacientov, ktorí podstupujú implantáciu kĺbových náhrad, je nízka hladina vitamínu D spojená so zvýšeným rizikom spomalenej osteointegrácie, čo môže viesť k aseptickému uvoľneniu implantátu. Viaceré štúdie uvádzajú, že až 30-50 % pacientov podstupujúcich totálnu výmenu kĺbu má suboptimálne hladiny vitamínu D. Cieľom našej štúdie je monitorovanie koncentrácie vitamínu D u pacientov pred plánovaným operačným zákrokom.

Kľúčová slova: *endoprotéza, vitamín D, ortopédia*

Abstract

Vitamin D regulates phosphorus and calcium homeostasis and plays a significant role in the regulation of bone metabolism. It stimulates osteoblastic bone matrix formation and optimizes the process of bone remodeling. The current epidemic of low vitamin D concentrations is a global problem - it is estimated that approximately 15% of the global population has a vitamin D level below 12ng/ml. In Europe, approximately 40% of the population suffers from vitamin D deficiency, with concentrations often below 20ng/ml. In patients undergoing orthopedic prosthesis implantation, low vitamin D levels are associated with an increased risk of delayed osseointegration, which can lead to aseptic loosening of the implant. Several studies report that up to 30–50% of patients undergoing total joint replacement have suboptimal vitamin D levels. The aim of our study is to monitor vitamin D concentrations in patients before a planned surgical procedure.

Key words: *endoprosthesis, vitamin D, orthopedics*

1 ÚVOD

Moderné implantácie endoprotéz bedrového a kolenného kĺbu sú časté ortopedické zákroky s vysokou úspešnosťou. V posledných desaťročiach počet týchto zákrokov neustále rastie. Vzhľadom na starnúcu populáciu sa očakáva, že v ďalších rokoch bude tento počet narastať. Vďaka neustálemu zlepšovaniu implantátov a chirurgických postupov sa v súčasnosti znižujú komplikácie. Napriek tomu, ako pri každom inom chirurgickom zákroku, ani implantácia nie je bez rizika. Preto niektorí pacienti môžu z rôznych indikácií potrebovať reoperáciu. Pri tejto tzv. revíznej endoprotéze sa vo všeobecnosti aspoň jeden z implantovaných komponentov vymení, odstráni, pridá alebo upraví. Údaje z aloplastických registrov ukazujú, že hlavným dôvodom revíznej operácie je aseptické uvoľnenie. Príčina aseptického uvoľnenia je

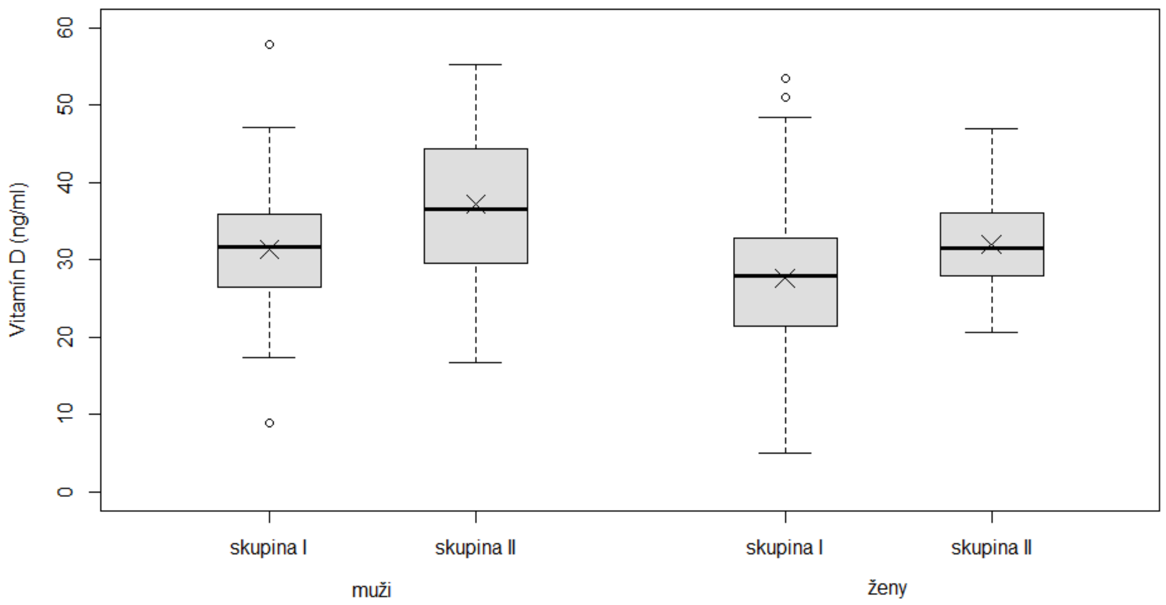
multifaktoriálna. Môže k nemu dôjsť v dôsledku operačne chybne ukotvenej protéze, čo spôsobuje mechanické preťaženie a postupné uvoľňovanie protézy, alebo časovo podmienené uvoľnenie protézy pri biologicky zvýšenej prestavbe kosti. Preto je pre úspešnú implantáciu nevyhnutná zdravá kosť.
Vitamín D zohráva kľúčovú úlohu pri udržiavaní zdravého metabolizmu kostí. Je obzvlášť dôležitý pri regulácii sérového vápnika a fosfátu, ktoré sú zase potrebné pre normálnu mineralizáciu kostí. Homeostáza sa dosahuje reguláciou absorpcie a vylučovania vápnika a fosfátu a mobilizáciou alebo ukladaním vápnika alebo fosfátu do kostí. Rezidentné osteoklasty neustále odstraňujú starú alebo mechanicky nepotrebnú kosť, zatiaľ čo osteoblasty ju nahrádzajú novovytvorenou kosťou. Za fyziologických podmienok sa odstránená kosť nahrádza rovnakým množstvom novovytvorenej kosti, aby sa chránila štrukturálna integrita kostrového systému. Toto celoživotné kontinuum je veľmi krehké, pretože prestavba kostí zahŕňa nielen komplexnú interakciu medzi osteocytmi, osteoblastami a osteoklastmi, ale je ovplyvnená aj hormónmi a lokálnymi rastovými faktormi. V prípade pretrvávajúcich nízkych hladín vitamínu D je táto krehká rovnováha narušená, čo vedie k zvýšenému kostnému obratu prostredníctvom zvýšenej regulácie parathormónu (PTH) a aktivácie osteoklastov. Nedostatok vitamínu D je bežný a odhaduje sa, že postihuje viac ako miliardu ľudí na celom svete. Je známe, že vitamín D ovplyvňuje rôzne systémy v ľudskom tele. Okrem toho niekoľko štúdií spojilo nedostatok vitamínu D s horšími zdravotnými výsledkami u ortopedických pacientov, ktorí majú podstúpiť operáciu. Nedostatok vitamínu D sa často vyskytuje aj u ortopedických pacientov, pričom prevalencia sa navyše zvyšuje s vekom, čo sa zhoduje s nárastom výskytu potreby implantácie. Cieľom tejto štúdie je stanoviť koncentrácie vitamínu D u pacientov, ktorí budú podstupovať výmenu kolenného a bedrového kĺbu.

2 METODIKA A MATERIÁL

Do štúdie boli zaradení pacienti, ktorí boli hospitalizovaní za účelom výmeny kolenného a bedrového kĺbu, pričom hlavným kritériom rozdelenia pacientov do jednotlivých skupín bola lokalizácia implantácie náhradného kĺbu. Celkový počet pacientov predstavoval 487 (100%). Prvá skupina boli pacienti indikovaní na kolennú náhradu: muži 112 (37,46%), ženy 187 (62,54%). Druhá skupina boli pacienti indikovaní na bedrovú náhradu: muži 56 (44,80%), ženy 69 (55,20%).
Pacientom bola pred vykonaním operačného zákroku odobratá krv pomocou venepunkcie do skúmavky S-Monovette sérum gél. Krv bola následne spracovaná centrifugáciou pri 4500 ot/ min po dobu 10 minút. V analyzovanom sére jednotlivých pacientov bola stanovená koncentrácia vitamínu D pomocou súpravy Elecsys Vitamin D total III cobas® s použitím biochemického analyzátora Roche Cobas e601.

3 VÝSLEDKY A DISKUSIA

V prvej pozorovanej skupine pacientov (kolenná náhrada kĺbu) dosiahli muži priemernú koncentráciu vitamínu D 31,26 ng/ml, zatiaľ čo ženy vykazovali nižšiu priemernú hodnotu 27,85 ng/ml. Mediány boli 32,01 ng/ml u mužov a 26,45 ng/ml u žien, čo naznačuje výraznejší posun k nižším hodnotám v ženskej populácii. Rozptyl bol o niečo vyšší u žien pričom smerodajná odchýlka (SD) bola 9,42 ng/ml a u mužov 6,89 ng/ml, čo poukazuje na väčšiu individuálnu variabilitu v ženskej populácii. Minimálne hodnoty boli pozorované nasledovne: 16,81 ng/ml u mužov a 14,20 ng/ml u žien. Maximálna hodnota bola 39,41 ng/ml u mužov a 43,68 ng/ml u žien, čo naznačuje výskyt niekoľkých žien s výrazne nadpriemernými hladinami vitamínu D v sledovanej skupine pacientov.



Graf 1 Priemerné koncentrácie vitamínu D v jednotlivých skupinách pacientov rozdelených podľa pohlavia.

V druhej sledovanej skupine pacientov (bedrová náhrada kĺbu) dosiahli priemerné koncentrácie vitamínu D hodnoty 35,68 ng/ml (u mužov) a 31,41 ng/ml (u žien). Medián u mužov bol 34,10 ng/ml, u žien 28,96 ng/ml, teda rozdiel medzi pohlaviami sa zachoval. Variabilita stúpla najmä u mužov: SD = 8,94 ng/ml, u žien sa naopak mierne znížila (7,45 ng/ml). Minimálna hodnota bola u mužov 17,11 ng/ml a 13,19 ng/ml u žien, pričom u žien bolo viac pacientiek, ktoré mali minimálne hodnoty. Maximálna hodnota bola u mužov 41,60 ng/ml a 45,80 ng/ml u žien. V rámci porovnania rozdelených skupín u mužov možno na Grafe 1 pozorovať vyššie priemerné koncentrácie v druhej skupine pacientov ako v prvej skupine. U žien sa prakticky vyskytuje rovnaké pozorovanie.

4 ZÁVER

V našej štúdii sme zistili, že priemerné koncentrácie vitamínu D jednotlivých skupín pacientov sa nachádzajú na koncentračnej úrovni 29,0-36,0 ng/ml, čo môžeme považovať za dostatočné hladiny u pacientov podstupujúcich implantáciu. Extrémnu pozornosť treba venovať pacientom, ktorí individuálne vykazovali znížené koncentrácie vitamínu D, pričom predsuplementácia vitamínom D môže efektívne upraviť metabolizmus kostí. Na základe toho môžeme predpokladať, že riziko aseptického uvoľnenia endoprotézy bude nižšie.

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INTERAKCIA *CAENORHABDITIS ELEGANS* AKO HOSTITEĽA S PATOGÉNNYMI BAKTÉRIAMI

THE INTERACTION OF CAENORHABDITIS ELEGANS AS A HOST WITH PATHOGENIC BACTERIA

Andrej Rondoš, Alžbeta Kaiglová, Patrícia Hockicková, Monika Bertok Fečová, Soňa Kucharíková

Abstrakt

Caenorhabditis elegans sa osvedčil ako dôležitý bezstavovcový modelový organizmus pre štúdium bakteriálnej patogenézy, genetiky, neurobiológie, starnutia. Krátky životný cyklus, jednoduchá anatómia a plne sekvenovaný genóm umožňujú využívať tento organizmus na detailnú analýzu mechanizmu infekcie a vrodenej imunity. Prehľad sumarizuje interakcie *C. elegans* s Gram-negatívnymi a Gram-pozitívnymi baktériami. Boli popísané patogény ako *Pseudomonas aeruginosa, Salmonella enterica a Staphylococcus aureus,* ktoré disponujú evolučne konzervovanými virulentnými faktormi. Opisované sú rôzne mechanizmy bakteriálneho usmrcovania, produkcie toxínov, vrátane intestinálnej kolonizácie. Tento prehľadný článok kladie dôraz na metabolické a regulačné mechanizmy v priebehu infekcie. Spomínané sú aj antagonistické mikrobiálne interakcie, ktoré môžu zvyšovať prežitie hlístic.

Kľúčové slová: *Caenorhabditis elegans, gram pozitívne baktérie, gram negatívne baktérie, patogény, interakcie*

Abstract

Caenorhabditis elegans has proven to be an important invertebrate model organism for the study of bacterial pathogenesis, genetics, neurobiology, and aging. Its short life cycle, simple anatomy, and fully sequenced genome allow it to be used for detailed analysis of mechanisms of infection and innate immunity. The review summarizes the interactions of *C. elegans* with Gram-negative and Gram-positive bacteria. Pathogens such as *Pseudomonas aeruginosa*, *Salmonella enterica*, and *Staphylococcus aureus* have been described, which possess evolutionary conserved virulence factors. Various mechanisms of bacterial killing, toxin production, and intestinal colonization are described. This review emphasizes metabolic and regulatory mechanisms during infection. Antagonist microbial interactions that may maintain nematode survival are also mentioned.

Key words: *Caenorhabditis elegans, Gram-positive bacteria, Gram-negative bacteria, pathogens, interactions*

1 CHARAKTERISTICKÉ VLASTNOSTI *C. ELEGANS*

Caenorhabditis elegans je malá priesvitná hlística, ktorá sa využíva ako modelový organizmus v genetike, molekulárnej biológii, ale aj v neurovede. Jeho dĺžka dosahuje približne jeden milimeter a telo má veľmi organizovanú štruktúru (Davari *et al.* 2025). Dospelé hermafrodity dokážu samy vyprodukovať približne 300 potomkov, so samcom je to až 1000 jedincov (Berk *et al.* 2024). Hlística má krátky životný cyklus, 3 dni od vajíčka po dospelého jedinca a ľahko sa udržiava v laboratórnych podmienkach, preto je veľmi praktický a obľúbený modelový organizmus (Davari *et al.* 2025). Vďaka krátkemu cyklu života je tento modelový organizmus vhodný na štúdium dlhovekosti (Wu *et al.* 2024). Štúdie, ktoré využívajú modely stavovcov sú obmedzené nákladmi a dlhými reprodukčnými cyklami (Shoebul *et al.* 2025). *C. elegans* počas starnutia stráca kvality anatomickej a funkčnej charakteristiky, zhoršuje sa mu imunita, motilita, integrita tkaniva (Berk *et al.* 2024). Informácie z vonkajšieho prostredia vyhodnocuje a integruje nervový systém, tak aby výsledkom boli koherentné a adaptívne výstupy. Každý neurón zohráva úlohu v sieti bunkovej komunikácie tvorenej synaptickou a extrasynaptickou signalizáciou. V dospelom hermafrodite *C. elegans* sa nachádza 302 neurónov. Štúdie popisujúce elektrické a chemické synapsy *C. elegans,* viditeľné elektrónovou mikroskopiou, sú k dispozícii už vyše 40 rokov, zatiaľ čo extrasynaptickú sieť začali objavovať iba nedávno. Väčšina neurónov hlístice *C. elegans* je multifunkčných, pretože sú post aj presynaptické voči iným neurónom a vytvárajú neuromuskulárne prepojenia (Emmons *et al.* 2024). *C. elegans* je bunkovo (959 buniek v tele dospelého hermafrodita) aj genomicky komplexný (20 000 génov) a jeho genetický súbor slúži ako vhodná voľba na expresné a funkčné analýzy génových rodín. (Poole *et al.* 2024; Davari *et al.* 2025; Majeed *et al.* 2025). U *C. elegans* boli identifikované aj antimikrobiálne gény v reakciách na bakteriálnu a fungálnu infekciu, ktoré sú spájané s vrodenou imunitnou odpoveďou. Boli identifikované a popísané aj molekulárne signálne dráhy, ktoré riadia proces infekcie patogénmi (Wang *et al.* 2024).

2 INFEKCIE HOSTITEĽSKÉHO ORGANIZMU *C. ELEGANS* SPÔSOBENÉ GRAM-NEGATÍVNYMI BAKTÉRIAMI

Prvé dôkazy zamerané na interakcie medzi hlísticami *C. elegans* a patogénmi bakteriálneho pôvodu pochádzajú z konca 90. rokov minulého storočia, kedy skupina Ausubela *et al.* (1999) dokázala, že aj *C. elegans* môže byť využiteľný ako modelový organizmus na štúdium infekcií Gram-negatívnej baktérie *Pseudomonas aeruginosa* (Tan *et al.* 1999a; 1999b). Kmeň *P. aeruginosa* PA14 dokáže usmrtiť *C. elegans* na základe koncentrácie solí v kultivačnom médiu. V podmienkach s nízkou koncentráciou solí v médiu *P. aeruginosa* PA14 postupne usmrcovala hostiteľskú hlísticu akumulovaním bakteriálnych buniek v čreve. Naopak médium s vyššou osmolaritou zabezpečilo zabitie hlístic do niekoľkých hodín. Médium bohaté na živiny zapríčinilo produkciu nízkomolekulových difúznych toxínov, fenazínov, vďaka ktorým je usmrtenie rýchle, v priebehu 2 - 4 hodín a nezávislé od rastu v čreve (Tan *et al.,* 1999; Hajdú *et al.,* 2024). PA14 dokáže sekretovať pyoverdín siderofór na sekvestráciu železa ako chelátu s vysokou afinitou zapríčiňujúc stav podobný hypoxii (Hajdú *et al.* 2024). Mnohé neesenciálne gény *P. aeruginosa*, vrátane *toxA*, *gacA*, *dsbA* sa podieľajú na patogénnych interakciách u myší a rastlín a sú potrebné pre zabitie *C. elegans*. Identifikácia mnohých virulenčných determinantov potrebných pre patogenézu v rôznych skupinách organizmov potvrdzuje, že molekulárny základ patogenity *P. aeruginosa* môže byť konzervovaný naprieč troma evolučne rozdielnymi hostiteľmi (Tan *et al.* 1999; Xue *et al.* 2024; de Sales *et al.* 2025). Marogi *et al.* (2024) skúmali asimiláciu dusíka v kmeni PA14 a ako sRNA-mediovaná regulácia ovplyvňuje produkciu prchavého amoniaku. Práve prchavý amoniak je atraktívny pre *C. elegans*, pretože hlístice využívajú čuchové neuróny, aby detegovali amoniak produkovanými baktériami s preferenciou pre patogénne varianty PA14 v porovnaní s menej patogénnymi variantmi alebo s *E. coli*. Rovnaké bakteriálne dráhy, ktoré sú potrebné pre produkciu esenciálnych živín *C. elegans* , sú rovnako významné pre rast škodlivých baktérií v *C. elegans.* Rovnaká sRNA, ktorá v ďalších generáciách naučí hlístice vyhýbať sa PA14 je zároveň dôvodom, že neskúsené *C. elegans* považujú PA14 za atraktívnu prostredníctvom regulácie produkcie amoniaku (Marogi *et al.* 2024; Siddiqui *et al.* 2025; Zhao *et al.* 2025). Sekvenovanie 16S rDNA odhalilo evolučnú spojitosť medzi rastlinnými a človekom asociovanými kmeňmi *P. aeruginosa.* Bol preukázaný výskyt kmeňov *P. aeruginosa* asociovaných so zeleninou, vrátane paradajok a uhoriek, ktoré sa veľmi často požívajú v surovom stave. Kmene *P. aeruginosa* izolované z uhoriek, paradajok, baklažánov a čili zdieľajú podobné genetické vlastnosti ako klinické izoláty a sú spájané s vysokou produkciou pyokyanínu, ktorý je úzko prepojený s infekciami u ľudí. Existuje teda vysoká pravdepodobnosť, že poľnohospodárske kmene sú patogénne a môžu predstavovať riziko pre pracovníkov alebo spotrebiteľov, ak by prenikli cez imunitné vrodené bariéry (Ambreetha *et al.* 2022a; 2022b). Podobne ako *P. aeruginosa*, aj *Salmonella typhimurium*, Gram-negatívna enteropatogénna baktéria, bola schopná vytvoriť perzistentnú infekciu v čreve a v hltane *C. elegans* (Aballay *et al.* 2000; Labrousse *et al.* 2000; Mallick *et al.* 2025). Infikovanie *C. elegans* kmeňmi *S. typhimurium* preukázalo ich zotrvávanie v čreve, vplyv na dĺžku života hostiteľa a napokon jeho usmrtenie. Mutantný kmeň *Salmonella*, ktorý je menej virulentný v cicavčom modeli, preukázal zoslabenú virulenciu aj v organizme *C. elegans*. Infekcia *C. elegans* so *S. typhimurium* odhalila vývojovú chybu v zárodočnej línii. Predchádzajúca štúdia ukázala, že delécia génu *fepB* u *S. typhimurium* zmenila fyziológiu *C. elegans* a podporila vznik dauer lariev (obdobie stagnácie) v ich druhej generácii počas nepretržitej infekcie trvajúcej 8 dní pri 22 °C (Mallick *et al.* 2025). Aj ďalšie sérotypy, ako napríklad *Salmonella enterica*, vrátane *S. enteritidis* a *S. dublin*, sú schopné usmrtiť *C. elegans* (Aballay *et al.* 2000). Štúdia od Aballaya *et al.* (2003) ukázala, že lipopolysacharid divokého typu *Salmonella* je nevyhnutný na vyvolanie programovanej bunkovej smrti v gonáde, ako aj na ďalšie pretrvávanie baktérií v čreve *C. elegans* (Aballay *et al.* 2003). Spomínaný mechanizmus je aj naďalej považovaný za veľmi dôležitý kľúčový bod patogenézy *Salmonella* v *C. elegans*, ktorý potvrdzujú aj štúdie (Wu *et al.* 2024). Úloha lipopolysacharidu v modeli *C. elegans* bola zdokumentovaná aj u ďalšieho ľudského patogéna – rodu *Shigella* spp. (Kesika *et al.* 2015). Lipopolysacharid *Shigella* bol pre *C. elegans* toxický a bakteriálne bunky dokázali modifikovať tento kľúčový virulenčný determinant Gram-negatívnych baktérií, aby unikli imunitnému systému hostiteľa (Kesika *et al.* 2015). Navyše, pre úplné usmrtenie hlístic *Shigella flexneri* boli potrebné živé bakteriálne bunky a minimálny čas expozície, aby bol účinok letálny (Kesika *et al.* 2011). Úloha etanolu v patogenite viacerých druhov rodu *Acinetobacter* (*A. baumannii, A. haemolyticus, A. johnsonii a A. radioresistens*) bola taktiež zdokumentovaná v modelom organizme *C. elegans* (Smith *et al.* 2004). Smith *et al.* (2004) zistili, že acinetobaktery vystavené etanolu dokázali tolerovať vysoké koncentrácie solí a boli virulentnejšie voči bakteriálnemu predátorovi *C. elegans* (Smith *et al.* 2004). Štúdie zamerané na Gram-negatívnu patogénnu baktériu *Klebsiella pneumoniae* využili *C. elegans* na skúmanie virulencie *in vivo* u kmeňa nesúceho metalo-β-laktamázu New Delhi (NDM-1) (Fuursted *et al.* 2012). Fuursted *et al.* (2012) dokázali, že kmeň *K. pneumoniae* nesúci NDM-1 bol v modeli hlístice rovnako virulentný ako v modeli sepsy u myší (Fuursted *et al.* 2012). Neskoršie práce odhalili úlohu špecifických génov *K. pneumoniae*, predovšetkým génov pre karbapenemázu a kolistínovú rezistenciu, ktoré sa podieľajú na virulencii pri využití *C. elegans* ako hostiteľského modelu (Lavigne *et al.* 2013). Hlística *C. elegans* bola úspešne využitá aj na štúdium patogenity vysoko infekčnej baktérie *Francisella tularensis*, ktorá môže byť využitá ako agens bioterorizmu (Jayamani *et al.* 2017). Vývoj vhodného patosystému pre *C. elegans* na štúdium živej vakcinačnej línie *F. tularensis* v tekutom médiu umožnil detekciu zlúčenín s anti-*F. tularensis* účinkom (Jayamani *et al.* 2017). Je známe, že tráviaci trakt *C. elegans* predstavuje primárne rozhranie medzi vrodeným imunitným systémom a bakteriálnymi patogénmi. Vďaka tomuto faktu poskytol *C. elegans* alternatívny prístup k objasneniu imunopatogenézy Gram-negatívnej baktérie *Legionella pneumophila* (Brassinga a Sifri 2019), ktorá je pôvodcom Legionárskej choroby. Štúdia Brassingu *et al.* (2010) ukázala, že kŕmenie hlístic baktériou *L. pneumophila* viedlo k akumulácii baktérií v črevnom lúmene a k skráteniu dĺžky života v porovnaní s *C. elegans* kŕmenými usmrtenými baktériami (Brassinga *et al.* 2010). Okrem toho bola patogénna povaha *Yersinia pestis* taktiež opísaná v hostiteľskom modeli *C. elegans* (Styer *et al.* 2005).

3 INTERAKCIE *C. ELEGANS* A GRAM-POZITÍVNYCH BAKTÉRIÍ

C. elegans zohral dôležitú úlohu aj pri objasňovaní interakcií medzi gram-pozitívnymi baktériami a hostiteľom. Garsin *et al.* (2001) ako prví preukázali, že klinické izoláty *Enterococcus faecalis*, *Streptococcus pneumoniae* a *Staphylococcus aureus* sú patogénne pre jedince *C. elegans* (Garsin *et al.* 2001). Naproti tomu *Bacillus subtilis*, *Enterococcus faecium* a *Streptococcus pyogenes* nespôsobili úhyn dospelých jedincov *C. elegans* (Garsin *et al.* 2001). Študovaním enterokokov autori zistili, že *E. faecalis* aj *E. faecium* pretrvávali v čreve hlístice, avšak iba *E. faecalis* vyvolával dlhšie pretrvávajúcu infekciu (Garsin *et al.* 2001). *C. elegans* sa taktiež ukázal ako užitočný a praktický pri identifikácii nových enterokokových virulenčných faktorov. Preskúmaním transpozónovej knižnice *E. faecalis* bol identifikovaný mutant s mutáciou v géne *scrB*, ktorý kóduje sacharóza-6-fosfát hydrolázu a ktorý vykazoval zoslabenú virulenciu ako v modeli *C. elegans*, tak aj v cicavčom, myšom, modeli. V týchto modeloch autori poukázali na analogické vlastnosti infekcie spôsobenej gram-pozitívnymi baktériami v jednoduchom bezstavovcovom hostiteľskom systéme a v komplexnejších organizmoch. Uvedené výsledky naznačujú, že využitie jednoduchého modelového organizmu hlístice *C. elegans* na štúdium gram-pozitívnych baktérií môže poskytnúť nový prístup ku kontrole ochorení (Maadani *et al.*, 2007). Gram-pozitívny *S. aureus* sa často vyskytuje na koži a slizniciach zdravých ľudí či zvierat. Avšak za určitých okolností dokáže spôsobiť široké spektrum infekčných ochorení. *S. aureus* je vybavený veľkým množstvom virulenčných faktorov a toxínov, ktoré napomáhajú adherencii k tkanivám, pomáhajú mu vyhýbať sa imunitnej odpovedi hostiteľa alebo poškodzovať hostiteľské bunky (Cheung *et al.* 2021). V tele hostiteľa môžu takéto faktory iniciovať zápal, narúšať funkciu imunitných buniek, zmeniť proces zrážania krvi a oslabovať vlastnú integritu cievnych stien (Thomer *et al.* 2016; Kobayashi *et al.* 2015). Obrovské množstvo vzájomne prepojených regulačných génov riadi expresiu takýchto virulenčných faktorov v reakcii na rôzne environmentálne podnety (Jenul *et al.piewngam* 2019). Predpokladá sa, že viaceré gény zapojené do celkového procesu vrodenej imunitnej odpovede sú vysoko konzervované medzi cicavcami a bezstavovcami. Napríklad podľa Sifriho *et al.* (2003) zohrávala hostiteľská dráha p38 MAP kinázy, ktorá ovplyvňuje antimikrobiálnu odpoveď ľudských neutrofilov, kľúčovú úlohu aj v odolnosti *C. elegans* voči infekcii spôsobenej *S. aureus*. Určité kľúčové virulenčné faktory kódované génmi *agr, hla* a *spa* boli zásadné pre patogenitu tak u hlístic, ako aj u cicavcov (Sifri *et al.* 2003). Tieto zistenia sú v súlade s údajmi Wu *et al.* (2012), ktorí zaznamenali vysokú koreláciu medzi nematocídnou aktivitou a klinickými prejavmi infekcie u ľudí spôsobenej invazívnymi aj neinvazívnymi kmeňmi *S. aureus*, čo naznačuje, že *C. elegans* môže slúžiť ako vhodný hostiteľský modelový organizmus na skúmanie patogenézy tejto baktérie u ľudí (Katayama *et al.* 2021). Okrem stafylokokov patria do bežnej mikrobioty dutiny ústnej a orofaryngu aj viridujúce streptokoky, ako napríklad *Streptococcus mitis* a *Streptococcus oralis* (Baty *et al.* 2022). U pacientov so slabším imunitným systémom sa však môžu šíriť hlbšie do organizmu a vyvolávať závažné ochorenia, ako sú napríklad meningitída, abscesy, pneumónia, bakterémia alebo endokarditída (Lannes-Costa *et al.* 2021). Skôr bolo dokázané, že *S. mitis* a *S. oralis* produkujú peroxid vodíka (H_2O_2), ktorý dokáže usmrtiť makrofágy a epitelové bunky(Okahashi *et al.* 2022). Štúdie zamerané na interakcie Gram-pozitívnych baktérii z čeľade *Streptococcaceae* s hostiteľom poukázali na význam sledovania oxidačného stresu v priebehu infekcie u hlístic (Bolm *et al.* 2004). Pri použití modelu *C. elegans* Naji *et al.* (2018) pozorovali rýchle usmrtenie hlístic týmito skupinami streptokokov, ktoré bolo indukované produkciou H_2O_2 (Naji *et al.* 2018; 2019). Tieto zistenia naznačujú, že fosforylácia transkripčného faktora SKN-1 môže zlepšiť odpoveď proti oxidačnému stresu a chrániť hlístice pred ich usmrtením (Naji *et al.* 2018). Existujú dôkazy, že patogén-špecifická imunitná odpoveď môže byť posilnená práve antagonistickými interakciami medzi rôznymi mikrobiálnymi druhmi. Problematiku skúmali Iatsenko *et al.* (2014), ktorí sledovali, ako prirodzené kmene *Bacillus* ovplyvňujú prežitie hlístic po infekčnej výzve (Iatsenko *et al.* 2014; Tamim *et al.* 2024). V štúdii zistili, že práve kmeň *Bacillus subtilis* GS67 zvyšoval rezistenciu hlístic voči Gram-pozitívnemu patogénu prostredníctvom mikrobiálneho antagonizmu sprostredkovaného fengycínom. Lipopeptid fengycín bol identifikovaný ako kľúčová inhibičná molekula produkovaná kmeňom *B. subtilis* GS67. Mutant *B. subtilis* GS67, ktorý fengycín neprodukoval, stratil schopnosť potláčať patogény a nedokázal chrániť *C. elegans* pred infekciami (Iatsenko *et al.* 2014; Saito *et al.* 2023). Strata ceramid glukozyltransferáz (cgt-1, cgt-2, cgt-3) skracuje bazálnu dĺžku života jedincov *C. elegans*, avšak výhradne neobmedzuje prospešný vplyv baktérie *B. subtilis* na predĺženie životnosti hostiteľa (Arvin *et al.* 2023). Okrem toho sa ukázalo, že fengycíny dokážu eliminovať *S. aureus* inhibíciou quorum sensing, procesu, pri ktorom baktérie reagujú na hustotu svojej populácie zmenou génovej expresie (Piewngam *et al.* 2018). Ďalej bolo zistené, že infekcia *S. aureus* a *Enterococcus faecalis* viedla k dlhšiemu prežívaniu *C. elegans* kŕmených *B. subtilis var.* natto v porovnaní s kontrolnými hlísticami kŕmenými *E. coli* OP50. Analýza transkriptómu ukázala, že gény spojené s vrodenou imunitou a obranou proti Gram-pozitívnym baktériám boli výraznejšie exprimované u hlístic kŕmených *B. subtilis* (natto) (Katayama *et al.* 2021). Poznatky komplexne potvrdzujú robustnosť modelového organizmu *C. elegans* a relevantnosť pre štúdium patogenézy, hostiteľskej imunity a mikrobiálnych interakcií aj s Gram-pozitívnymi baktériami, s potenciálnym presahom a pochopením infekcií u vyšších organizmov.

4 ZHRNUTIE

V porovnaní s cicavčími modelmi predstavuje organizmus *C. elegans* veľmi sľubný preliminárny nástroj na štúdium vrodenej imunitnej odpovede, interakcií hostiteľa s patogénmi a molekulárne signálne dráhy riadiace tieto procesy. Oproti štúdiám využívajúcim modely stavovcov, má *C. elegans* výhody v nižších nákladoch pre výskum a v prístupe k vysokovýkonným analýzam. Z dôvodu, že genóm hlístice *C. elegans* je plne sekvenovaný, je veľmi ľahko prístupný ku génovým manipuláciám. Krátky cyklus života hlístice prináša ďalšie pozitíva vo využití tohto modelového organizmu na štúdie dlhovekosti a overovanie hypotéz v rámci kratších iteračných cyklov výskumu. *C. elegans* disponuje výhradne vrodenou imunitou a nedisponuje adaptívnou imunitou, čo jeho využitie výrazne limituje na štúdium dlhodobej imunitnej odpovede, imunopatológie pre vyššie organizmy. *C. elegans* má jednoduchšiu anatómiu čo prináša aj negatíva, pretožé nemá vyvinuté orgány, na ktorých by sa mohli študovať špecifické organové patagonézy. Aj napriek vysokej konzervovanosti istých signálnych dráh, nie je možné priamo extrapolovať výsledky na ľudskú patofyziológiu.

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IDENTIFIKÁCIA PATOGÉNOV POMOCOU MOLEKULÁRNEJ DIAGNOSTIKY PRI SEPTICKEJ ARTRITÍDE

IDENTIFICATION OF PATHOGENS USING MOLECULAR DIAGNOSTICS IN SEPTIC ARTHRITIS

Terézia Sedláčková, Štefan Kóňa, Nicholas Martinka

Abstrakt

Septická artritída je akútna infekcia kĺbu, pri ktorej sa patogény najčastejšie dostávajú do synoviálnej dutiny hematogénnou cestou. Najčastejším pôvodcom je *Staphylococcus aureus* vrátane rezistentných kmeňov MRSA. Ďalšími významnými agens sú *Streptococcus pyogenes, Streptococcus pneumoniae* a pri periprotetických infekciách aj koaguláza-negatívne stafylokoky ako *Staphylococcus epidermidis*. Gram-negatívne baktérie, ako *Escherichia coli* a *Pseudomonas aeruginosa* sa vyskytujú hlavne u rizikových pacientov. Špecifickým pôvodcom u mladých sexuálne aktívnych osôb je *Neisseria gonorrhoeae*. Menej častými, ale klinicky významnými patogénmi sú *Mycobacterium tuberculosis* a *Borrelia burgdorferi*. Septická artritída, najmä v natívnej forme a pri periprotetických infekciách predstavuje závažný klinický stav so zvýšeným rizikom septického šoku. Identifikácia patogénu je zásadná pre cielenú liečbu. Kultivačné techniky však často zlyhávajú, obzvlášť po predchádzajúcom podaní antibiotík alebo pri ťažko kultivovateľných mikroorganizmoch. Napriek rozmachu molekulárnej diagnostiky po pandémii COVID-19 aktuálne odporúčania stále uprednostňujú klasické kultivačné metódy. Tento prístup je však čoraz viac spochybňovaný odborníkmi, ktorí dosahujú vyššiu senzitivitu molekulárnymi metódami. Na základe aktuálnych poznatkov vznikol nový diagnostický algoritmus založený na molekulárnej detekcii mikroorganizmov a ich rezistencie, ktorý má potenciál zvýšiť presnosť diagnostiky, skrátiť dobu hospitalizácie a zlepšiť klinické výsledky u pacientov so septickou artritídou.

Klíčová slova: *mikroorganizmus, septická artritída, synoviálna tekutina*

Abstract

Septic arthritis is an acute joint infection, with pathogens most commonly reaching the synovial space via hematogenous spread. The most frequent causative agent is *Staphylococcus aureus*, including methicillin-resistant strains (MRSA). Other significant pathogens include *Streptococcus pyogenes*, *Streptococcus pneumoniae*, and coagulase-negative staphylococci such as *Staphylococcus epidermidis*, especially in periprosthetic joint infections (PJI). Gram-negative bacteria, such as *Escherichia coli* and *Pseudomonas aeruginosa*, are more prevalent in high-risk patient populations. In sexually active young adults, *Neisseria gonorrhoeae* is a notable cause, while less common pathogens like *Mycobacterium tuberculosis* and *Borrelia burgdorferi* also carry clinical relevance. Septic arthritis, particularly in its native form and in PJI, represents a serious clinical condition with an increased risk of septic shock. Accurate pathogen identification is essential for targeted therapy. However, culture-based methods frequently fail, especially in pretreated patients or when fastidious organisms are involved. Despite the expansion of molecular diagnostics after the COVID-19 pandemic, current North American and European guidelines continue to rely primarily on culture-based techniques. This traditional approach has increasingly been challenged by experts demonstrating higher sensitivity with molecular methods. Based on current evidence, a new diagnostic algorithm utilizing molecular testing has been developed

to improve the detection of pathogens and their resistance profiles. This approach has the potential to enhance diagnostic accuracy, reduce hospitalization duration, and improve clinical outcomes in patients with septic arthritis.

Key words: *microorganism, septic arthritis, synovial fluid*

1 ÚVOD

Septická artritída je akútne infekčné ochorenie kĺbu spôsobené mikroorganizmami, ktoré sa do synoviálneho priestoru dostávajú najčastejšie hematogénnou cestou. Najčastejším etiologickým agens u dospelých pacientov je *Staphylococcus aureus* vrátane meticilín-rezistentných kmeňov (MRSA), ktoré sú spojené s ťažkým klinickým priebehom a vysokým rizikom komplikácií. Ďalšími významnými gram-pozitívnymi patogénmi sú *Streptococcus pyogenes* (skupina A) a *Streptococcus pneumoniae*, pričom tieto sú častejšie u mladších pacientov alebo u osôb s predisponujúcimi faktormi, ako je imunodeficiencia či chronický alkoholizmus. Koaguláza-negatívne stafylokoky, najmä *Staphylococcus epidermidis*, sú často izolované pri periprotetických infekciách kĺbov, najmä po chirurgických výkonoch alebo artroplastikách. Gram-negatívne baktérie (hoci menej časté) predstavujú klinicky závažné agens najmä u starších pacientov, hospitalizovaných osôb alebo pri infekciách urogenitálneho traktu. Z nich dominuje *Escherichia coli* a *Pseudomonas aeruginosa*, ktorá sa typicky vyskytuje u intravenóznych narkomanov alebo pri nozokomiálnych infekciách. U sexuálne aktívnych mladých dospelých môže byť príčinou septickej artritídy *Neisseria gonorrhoeae*, ktorá spôsobuje gonokokovú artritídu s často migrujúcou symptomatológiou. Medzi ďalších, menej častých pôvodcov patria *Mycobacterium tuberculosis*, spôsobujúca chronickú formu artritídy a *Borrelia burgdorferi*, etiologický agens lymskej artritídy.
Natívna septická artritída a periprotetické infekcie kĺbov predstavujú okrem ekonomickej záťaže pre zdravotnícky systém aj medicínsku urgentnú situáciu kvôli riziku septického šoku. Identifikácia patogénu je kľúčová tak pri natívnej septickej artritíde, ako aj pri periprotetickej infekcii kĺbov. Pacienti s kultivačne negatívnou septickou artritídou sú dlhšie hospitalizovaní a majú vyššiu mieru úmrtnosti v porovnaní s pacientmi, u ktorých sa mikroorganizmus podarí identifikovať. Kultivačné techniky mikroorganizmov sú často problematické, najmä ak boli pacienti predtým liečení nešpecifickými širokospektrálnymi antibiotikami, alebo ak ide o ťažko kultivovateľné baktérie. V období po pandémii COVID-19, keď sa rozšírilo využívanie molekulárnej diagnostiky, odporúčania severoamerických aj európskych odborných spoločností naďalej vychádzajú z kultivačných metód na identifikáciu mikroorganizmov spôsobujúcich infekcie kĺbov. Tento prístup bol v poslednom čase spochybnený viacerými autormi, ktorí na identifikáciu mikroorganizmov spôsobujúcich aseptickú artritídu začali využívať molekulárne testy.
Na základe dostupných štúdií bol vyvinutý nový diagnostický algoritmus založený na molekulárnom testovaní septickej artritídy, ktorého hlavným cieľom je zvýšiť presnosť identifikácie mikroorganizmov a ich antibiotickej rezistencie. Cieľom tejto štúdie je identifikovať pomocou qPCR vybrané skupiny patogénov v synoviálnych tekutinách u pacientov s podozrením výskytu septickej artritídy.

2 METODIKA A MATERIÁL

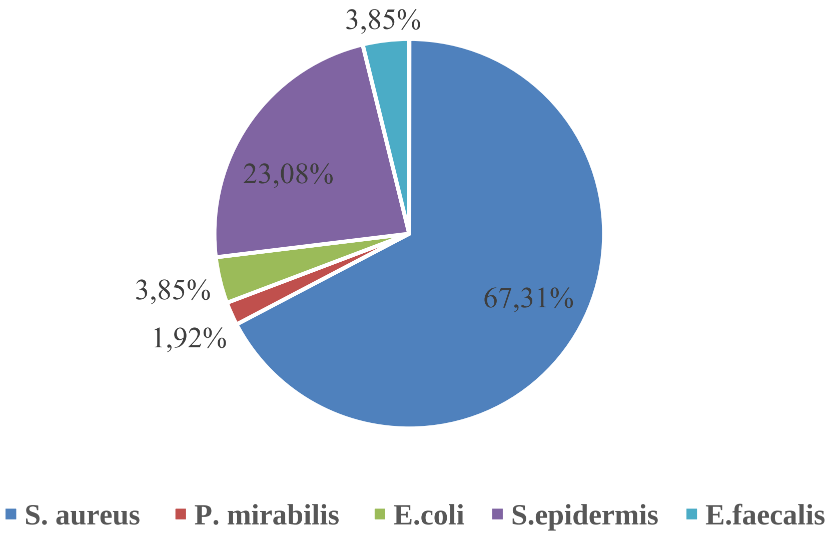
Do štúdie boli zaradení pacienti, pri ktorých bolo podozrenie na septickú artritídu a podstúpili biochemicko-cytologické vyšetrenie synoviálnej tekutiny. Následne boli zo súboru pacientov vylúčení tí, ktorí mali negatívne hladiny CRP < 5 mg/l, hodnotu < 5000 mm^3 leukocytov v synoviálnej tekutine, pričom prítomnosť PMN% bola < 50%. Celkový počet pacientov predstavoval 187, z toho uvedeným kritériám vyhovovalo 154 vzoriek (82,4%). Pre systematickú interpretáciu boli jednotliví pacienti zaradení do skupín podľa zisteného počtu leukocytov v analyzovaných vzorkách. Vzorky synoviálnej tekutiny boli analyzované na zistenie koncentrácie CRP, IL-6, celkového počtu leukocytov a následnej mikroskopickej diferenciácie leukocytov, pričom nás zaujímala hlavne prítomnosť PMN a leukocytov. Z jednotlivých vzoriek bola následne vykonaná extrakcia DNA na magnetickom izolátore nukleových kyselín. Z eluátu, ktorý obsahoval izolovanú DNA bola následne vykonaná qPCR reakcia na detekciu vybraných mikroorganizmov.

3 VÝSLEDKY A DISKUSIA

Vo všetkých analyzovaných 154 vzorkách bola priemerná hodnota CRP 38,90 mg/l, priemerná hodnota počtu leukocytov bola v celom súbore 52310, pričom PMN% bolo priemerne 70,45%.

Po rozdelení jednotlivých pacientov sme sa zamerali na skupinu pacientov, ktorí mali počty leukocytov > 50000 mm^3, pričom hodnota PMN% bola > 75%. V tejto skupine bolo celkovo 56 vzoriek, priemerná hodnota CRP bola 68,70 mg/l, pričom priemerná hodnota počtu leukocytov bola 75345 mm^3, kde priemerná hodnota PMN% bola 85,41%, čo podľa štandardnej klasifikácie považujeme za septické synoviálne vzorky.

Molekulárne testovanie qPCR 56 vzoriek identifikovalo mikroorganizmy v 52 vzorkách, pričom najviac zastúpený mikroorganizmus bol *Staphylococcus aureus* v 35 vzorkách (67,30%). V rámci testovania *Staphylococcus aureus* sme testovali aj gény rezistencie mecA/mecC, ktoré vykazovali pozitivitu v 28 vzorkách z celkových 35. Kultivačné vyšetrenie týchto 56 vzoriek potvrdilo *Staphylococcus aureus* len v 12 vzorkách, aj to v tých, v ktorých sme dokázali DNA *Staphylococcus aureus*. Ostatné patogény sú uvedené v Grafe 1.



Graf 1 Zastúpenie detegovaných mikroorganizmov pri analýze 52 vzoriek synoviálnej tekutiny.

4 ZÁVER

V našej štúdii sme potvrdili, že molekulárna analýza synoviálnej tekutiny presne identifikovala jednotlivé patogény vo vzorkách, pričom kultivačná analýza nebola úspešná vo viacerých prípadoch. Tak, ako ostatní autori štúdií, odporúčame zaradiť qPCR testovanie synoviálnej tekutiny do štandardného protokolu, pričom dopad tohto vyšetrenia zohráva dôležitú úlohu v manažmente liečby pacienta.

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OPHIOCORDYCEPS SINENSIS, PAECILOMYCES HEPAIALI: TESTOVANIE ANTIOXIDAČNEJ A ANTIMIKROBIÁLNEJ AKTIVITY

OPHIOCORDYCEPS SINENSIS, PAECILOMYCES HEPAIALI: TESTING ANTIOXIDANT AND ANTIMICROBIAL ACTIVITY

Lucia Ungvarská Maľučká, Anna Uhrinová, Damián Horňák

Abstrakt

Žezlovka Čínska (lat. *Cordyceps sinensis)* rastie na Tibetskej náhornej plošine a Himalájach. Je výnimočná svojim cudzopasníckym spôsobom života, jej spory prenikajú do tela prezimujúcej larvy motýľa, v ktorom následne rastie až do usmrtenia hostiteľa a sporulácie. Cieľom prace bolo extrahovať hydrofilné látky obsiahnuté v hubách druhu *Ophiocordyceps sinensis* kultivovaných na substráte *Oryza Sativa Indica* **1**, substráte *Oryza Sativa Japonica* **2** a *Paecilomyces hepiali* kultivovaný na substráte *Oryza Sativa Japonica* **3** a následne zistiť ich antioxidačnú, antimikrobiálnu aktivitu a určiť obsahove zastúpenie chemických látok v extraktoch. Vodné extrakty týchto látok boli pripravené refluxom. U pripravených extraktoch sa zisťovala antioxidačná aktivita DPPH metódou, stanovila sa antimikrobiálna aktivita na kmene baktérii *Escherichia coli* a *Staphylococcus aureus.* Kvalitatívna analýza extraktov bola uskutočnená pomocou NMR spektroskopie. Antioxidačnú aktivitu preukázali vzorky **2** a **3**. Antimikrobiálnu aktivitu na kmene baktérii *Escherichia coli* preukázala iba vzorka číslo **3**, skúšky antimikrobiálnej aktivity na kmeň *Staphylococcus aureus* boli vo všetkých troch vzorkách negatívne. NMR spektroskopia preukázala v extraktoch prítomnosť oligosacharidov a polysacharidov, a to maltodextrínu, SCP-1 a WIPS, a taktiež aminokyselín.

Keywords: *Ophiocordyceps sinensis, Paecilomyces hepiali, DPPH metóda, antimikrobiálna aktivita, NMR spektroskopia*

Abstract

Chinese caterpillar fungus (lat. *Cordyceps sinensis*) grows on the Tibetan plateau and in the Himalayas. It is unique in its parasitic lifestyle; its spores penetrate the body of a hibernating butterfly larva, where it grows until it kills the host and sporulates. The aim of the study was to extract hydrophilic substances contained in *Ophiocordyceps sinensis* mushrooms cultivated on *Oryza Sativa Indica* **1** substrate, *Oryza Sativa Japonica* **2** substrate, and *Paecilomyces hepiali* cultivated on *Oryza Sativa Japonica* **3** substrate, and then to determine their antioxidant and antimicrobial activity and to determine the content of chemical substances in the extracts. Water extracts of these substances were prepared by reflux. The antioxidant activity of the prepared extracts was determined using the DPPH method, and the antimicrobial activity was determined on *Escherichia coli* and *Staphylococcus aureus* strains. Qualitative analysis of the extracts was performed using NMR spectroscopy. Antioxidant activity was demonstrated by samples **2** and **3**. Only sample number **3** demonstrated antimicrobial activity on the *Escherichia coli* bacterial strain; antimicrobial activity tests on the *Staphylococcus aureus* strain were negative in all three samples. NMR spectroscopy demonstrated the presence of oligosaccharides and polysaccharides in the extracts, namely maltodextrin, SCP-1 and WIPS, as well as amino acids.

Keywords: *Ophiocordyceps sinensis, Paecilomyces hepiali, DPPH method, antimicrobial activity, NMR spectroscopy*

1 INTRODACTION

Ophiocordyceps sinensis (*O. sinensis*), known in Slovakia as Caterpillar fungus, is a parasitic fungus of the *Ophiocordyceps* species, growing mainly in the Himalayas at an altitude of 3500–5000 meters above sea level. Although its use in East Asian medicine dates back to the 15th century AD, it is only now receiving attention in modern Western medicine. Fungi of the *Cordyceps* genus, especially *O. sinensis*, have been an integral part of traditional Chinese medicine for centuries, which describes it as sweet and warming [1]. As they only occur naturally in the Himalayas, at an altitude of more than 3500 meters above sea level, their collection was difficult and their availability low. As a result, they are very expensive. They are therefore among the most expensive medicinal mushrooms. Due to its high price, it became almost exclusively reserved for members of the imperial family and nobility. However, despite its high price and low availability, *Cordyceps* has become part of traditional Chinese medicine thanks to its exceptional medicinal properties [2]. Due to the difficulty of obtaining natural *Cordyceps*, *Cordyceps* mycelium obtained through cultivation is mostly used for scientific research. Analysis of *O. sinensis* extracts has led to the isolation of proteins and other nitrogenous substances, polysaccharides, sterols, nucleosides, fatty acids and their derivatives, vitamins, and various inorganic substances [3, 4].

Recent studies have demonstrated the antimicrobial effect of these mushrooms [5], their ability to strengthen the body's immunity, their antioxidant effect [6], and their ability to actively detoxify the body from toxic substances and drug metabolites. They lower blood cholesterol levels [7] and generally improve the condition of the human cardiovascular systém [8]. They prevent thrombogenesis [9] and thus help prevent various cardiovascular diseases such as heart attack and stroke. *Cordyceps* stabilizes heart rhythm and eliminates arrhythmia [10]. It has a mild vasodilatory effect and thus improves blood flow to the heart muscle, lungs, and peripheral parts of the body, and also reduces overall vascular resistance [11].

2 MATHERIAL AND METHODS

1.1 Samples

To prepare the extracts, we used samples of fungal strains *O. sinensis* and *Paecilomyces hepiali* (*P. hepiali*). These were strains: *O. sinensis* cultivated on *Oryza Sativa Indica* **1** substrate, *O. sinensis* cultivated on *Oryza Sativa Japonica* **2** substrate, and *P. hepiali* cultivated on *Oryza Sativa Japonica* **3** substrate. All three samples were cultivated at the Technical University in Zvolen.

1.2 Used instrumentation

Biochrom Libra S12 spectrophotometer – Germany, IKA RV rotary vacuum evaporator. 10 – Germany, LTHS 250 heating nest – Slovakia, Biosan Den-1 McFarland densitometer – (Camlab), United Kingdom Biosan vortex V-1 plus – Riga, Latvia Varian VNMRS 600 NMR spectrometer (Agilent Technologies) – Palo Alto, California, USA

1.3 Prepare of extracts

5.00 g of dried powdered mushroom was weighed and mixed with 50 ml of distilled water. The contents of the flasks were refluxed for 4.5 hours. After filtration, the extracts were evaporated to dryness on a rotary vacuum evaporator.

1.4 Determination of antioxidant activity

The measurement of antioxidant activity was based on the ability of isolated constituents to deactivate the DPPH free radical. 10 mg of extract was gradually diluted by twofold dilution (1 ml of methanol). A freshly prepared DPPH radical solution (1 ml, 0.2 mmol/l) was then added to the prepared solutions. Absorbance was measured after 30 minutes on a Biochrom

Libra S12 spectrophotometer at a wavelength of 517 nm. The resulting absorbance value for each sample was calculated as the average of three measured values. The antioxidant activity of individual samples was calculated according to the equation: I (%) = ($A_{DPPH} - A_{sample}$) / A_{DPPH} x 100. The IC_{50} values in mg/ml were calculated from the measured values.

1.5 Determination of antimicrobial activity

Escherichia (E.) coli and *Staphylococcus (S.) aureus* bacteria were cultivated in broth at a temperature of 35°C. The prepared broth culture was then diluted with sterile broth to achieve a value of 3.3 on the MacFarland scale, followed by inoculation of liquid agar with the prepared bacterial cultures. Subsequently, samples of fungal extracts **1-3** dissolved in dimethyl sulfoxide at a concentration of 50 $\mu g \cdot ml^{-1}$, a control sample of Gentamycin solution at a concentration of 50 $\mu g \cdot ml^{-1}$ (positive control), and dimethyl sulfoxide (negative control) were prepared. The wells were filled with 50 µl of solution containing extracts **1-3**, 50 µl of Gentamycin control sample solution, and 50 µl of pure dimethyl sulfoxide. The plates were then incubated for 24 hours at 35°C. After incubation, the diameters (mm) of the growth inhibition zones (GIZ) were measured and the % GIZ was calculated based on the equation:

$RIZD(\%) = (IZD_{\text{sample}} - IZD_{\text{negative control}}) / IZD_{\text{antibiotic standard}}$ x 100

1.6 Qualitative determination of extract components using NMR spectroscopy

20 mg of extracts **1-3** were dissolved in 0.6 ml of deuterated water (D_2O-d_2) and their proton spectra were measured using a Varian Mercury Plus NMR spectrometer, 600 MHz. The chemical shifts of the protons of the identified compounds were then compared with the SDBSWeb spectrum database: https://sdbs.db.aist.go.jp [12].

3 RESULTS AND DISCUSSION

Of the three prepared mushroom extracts, sample **2**, which represented the *O. sinensis* strain cultivated on the *Oryza Sativa Japonica* substrate, showed the highest antioxidant activity (IC_{50} = 17.745 $mg.ml^{-1}$). It was followed in activity by extract **3** (IC_{50} = 23.574 $mg.ml^{-1}$), a strain of *P. hepiali* cultivated on *Oryza Sativa Japonica* substrate. Extract **1** showed no antioxidant activity. For comparison, Dong (2008) [6] compared the antioxidant activity of natural and artificially cultivated mycelia using the DPPH method. They found that aqueous extracts from natural mycelia had an IC_{50} value of 0.93 $mg \cdot ml^{-1}$ and artificially cultivated mycelia had an IC_{50} value of 1.03 $mg \cdot ml^{-1}$, which is almost 18 times lower than our values (17.74 $mg \cdot ml^{-1}$ for sample **2** and 23.57 $mg \cdot ml^{-1}$ for sample **3**).

The difference in these values may be due to the different *Ophiocordyceps* strain used, different cultivation conditions and substrate used, or a different procedure, where Dong added an acetate buffer solution to the tested samples of aqueous extract with DPPH. Similarly, the fact that their prepared DPPH solution had a concentration of 0.5 $mmol \cdot ml^{-1}$ compared to our DPPH concentration of 0.2 $mmol \cdot ml^{-1}$. An interesting finding of Dong's research is also the discovery that naturally growing *Ophiordyceps* exhibits better antioxidant activity in scavenging DPPH radicals than artificially cultivated *Ophiordyceps* [6].

However, the common result of both experiments is that *Ophiocordyceps* is a functional antioxidant, which raises the question of its possible further use as a preservative, especially nowadays when society prefers "natural" substances. The antimicrobial activity of *O. sinensis* extracts was found only in extract **3**, and only against *E. coli* bacteria. Pal (2015) tested the antimicrobial activity of aqueous and ethanol extracts of *O. sinensis* against three species of pathogenic bacteria, namely *E. coli*, *Pseudomonas auruginosa*, and *Bacillus subtillis* [5]. Their extracts showed antimicrobial activity against all three types of bacteria. The average inhibition zones of the aqueous extracts did not reach 0.65 cm. Only the ethanol extracts showed antimicrobial activity against all three types of bacteria. For the *E. coli* strain, the highest inhibition zone diameters (0.9 cm) were observed for 25 % and 50 % ethanol extracts. The 75 % and 100 % ethanol extracts had a measured inhibition zone diameter of 0.65 cm [5]. Here, there is a significant contrast with our results. In the case of our extracts, it was precisely the aqueous extracts that achieved an average inhibition zone of 1.1 cm and thus exhibited antimicrobial activity against the *E. coli* bacterial strain. By comparing the chemical shifts and signal multiplicity with the work of authors who have addressed the issue of determining the chemical structure of polysaccharides, we can conclude that the polysaccharides found in all three extracts have a structure similar to maltodextrin [13]. Chemically, maltodextrin is an oligosaccharide. It consists of *D*-glucose units linked in chains of varying lengths. The glucose units are primarily linked (1→4) by glycosidic bonds. By comparing our proton spectra with the spectrum of maltodextrin, we can clearly see the similarity in the chemical shifts of hydrogen signals, as well as the similarity in the splitting of some signals [13].

Polysaccharides composed of glucose units are typically characterized by the presence of a broad signal at 5.41 ppm, which belongs to anomeric protons in the α(1→4) and α(1→6) bonds of glucose units [13]. Given the slight differences in signal splitting and comparison with literature data [14] we can assume that the biologically active polysaccharides isolated so far from *Ophiocordyceps*, which contain the most glucose units in their structure, may be polysaccharides designated as SCP-1 [15] or WIPS [16]. As shown by NMR analysis of proton spectra, all three extracts contain a polysaccharide designated SCP-1 as the major chemical compound. In sample **2** extract, there are doublet signals in the aromatic region that belong to aromatic protons bound to an sp2 hybridized carbon atom. Based on a comparison with the literature, we can assume that the signals of compounds in the range from 0.70 ppm to 3.30 ppm in samples **2** and **3** belong to the chemical structures of amino acids. The doublet signal at 1.48 ppm (J = 8.0 Hz) belongs to the chemical structure of alanine, while the complex multiplet signals in the range up to 3.00 ppm may belong to the chemical structures of isoleucine, leucine, valine, and lysine [17].

4 CONCLUSION

Ophiocordyceps sinensis, also known as Chinese caterpillar fungus, has been used for centuries in traditional Chinese and Ayurvedic medicine, where it has earned a reputation as a miraculous, mythical fungus. In Southeast Asia, harvesting and trading this fungus has become a lucrative business. The main samples analyzed in this study were dried, powdered mycelia of three different samples of *O. sinensis* and *P. hepiali* mushrooms cultivated on a rice substrate. When testing the extracts for antioxidant activity, only two of the three samples were effective in scavenging the stable DPPH radical, namely samples **2** (IC_{50} 17.745 $mg.ml^{-1}$) and **3** (IC_{50} 23.574 $mg.ml^{-1}$). These results point to the potential use of *O. sinensis* in the pharmaceutical and food industries as an effective antioxidant and preservative. In the analysis of antimicrobial activity, only sample **3** showed the ability to inhibit bacterial growth. Despite its lower inhibitory capacity, we can see the potential for using *O. sinensis* in the supportive treatment of intestinal infections caused by *E. coli*. None of the three samples showed the ability to inhibit the growth of *S. aureus* bacteria. This opens up the possibility for further testing of antimicrobial activity against other types of bacteria, such as *Salmonella enterica*, which, like *E. coli*, is a cause of intestinal infections, or *Pseudomonas aeruginosa*, *Bacillus subtilis*, and others.

The results of spectral analysis confirmed the presence of polysaccharides, namely maltodextrin and polysaccharide SCP-1. It is noteworthy that the NMR spectra of all three extracts were very similar, indicating a similarity in the content of substances, but their antimicrobial and antioxidant activities differed significantly. Samples **2** and **3**, containing amino acids, showed antioxidant and antimicrobial activity.

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