DIAGNOSTICS AND CONSULTANCY
IN ASSISTING PROFESSIONS

CONSULTANCY IN THE CURRENT CONTEXT OF SOCIAL CHANGES

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DIAGNOSTICS AND CONSULTANCY in assisting professions
Scientific journal

CONTENTS

EDITORIAL

Dear colleagues,

we bring you a new issue dedicated to the topic „Counselling in the current context of social change"

Current societal changes are having a major impact on all areas of people's lives - in private, professional and public life. Many changes are having a positive impact – new technologies are supporting the development of education, allowing us to explore spaces that were previously inaccessible, information flows rapidly from one end of the world to the other, modern approaches to pupils are being applied in education (whether in teaching mathematics, Czech or foreign languages), we are travelling to destinations we previously only dreamed of as inaccessible places... On the other hand, we are paying a heavy toll for all these conveniences in the form of deteriorating mental health, increasing numbers of children, adolescents and adults seeking specialist care, changing the focus of specialist care, as well as changing client expectations.

Much contemporary society mentions the snowflake generation, a generation that is fragile, sensitive. I think it is important to make it clear that this generation is exactly the same as the generation before it. They live in a time of incredible information chaos, they are exposed to thousands of stimuli from all sides, which they are unable to filter sufficiently, they encounter difficult life situations that their parents did not encounter - the Covid 19 pandemic, the trauma of quarantine, changes in social relations, war conflicts in their immediate environment. They lose the consciousness of an open future (will there be one?), they lose the consciousness of their own identity

in terms of who I am and where I belong, because everything is happening so fast that the processes of internal transformation do not keep up with this pace, the life of the family as such is changing - all members have a large number of activities and often the intimacy of living together is disappearing - in such an environment it is difficult to find one's own place.

This and many other factors are leading to more intensive seeking of professional care. Unfortunately, we are not sufficiently prepared for this increase in interest - we do not have enough child psychologists and psychiatrists to care for adolescents, so it is necessary to respond to these needs locally and individually, in addition to a fundamental systemic change.

The 12th issue of our scientific journal contributes to these efforts by responding to changes in counselling care with concrete suggestions and examples of possible activities that can be implemented in practice. Here we address the issue of school phobia, which can be considered a massive problem that is increasingly encountered and often has tragic consequences ("Specificity and causes of school phobia in children and teachers actions"), another paper addresses the quality of communication between teachers and students as a source of creating a safe environment and promoting mental health ("The importance of the quality of social interactions between teachers and pupils in building a safe school environment - an analysis of teacher evaluation from the pupil's perspective "). Readers will also learn about "Supervision in schools from the perspective of supervisors" and about external mental health support options for college students in "Mental Health Apps

and Their Use by College Students." Promoting menopausal women's health using yoga is the focus of the text "Short-term yoga breathing intervention improves blood oxygenation, actual emotional state and resilience score in postmenopausal women".

In this issue, we also dedicate a medallion to an important personality – this time from abroad - Prof. Boguslav Śliwersky, who is not only a leading expert in Poland, but also collaborates significantly with many colleagues and institutions in our country and Slovakia. The medallion was prepared by prof. Alena Vališová.

In connection with Prof. Śliwersky's jubilee, we also publish a review of his important publication "Pedagogika. Podręcznik akademicki", this text defines key pedagogical issues in social contexts - economic, social, philosophical, ethical and psychological.

We would like to wish our readers as much strength and energy as possible ahead of the coming summer and hope that individual mental health care will become a significant priority in our daily lives.

On behalf of the editorial team

Markéta Švamberk Šauerová

SPECIFICITY AND CAUSES OF SCHOOL PHOBIA IN CHILDREN AND TEACHERS' ACTIONS

BARBARA GRZYB, BEATA PITUŁA, AGATA KAŁAT

Abstract: The article presents the problem of school phobia in the context of the need to rethink it on the basis of new research findings on the subject. Moreover, the increasing scale of the problem implies the need to look for new solutions, also of a systemic nature. The text therefore refers to and critically evaluates synthetic approaches to the problem proposed by researchers. An important part of the study is a presentation of teachers' and students' attitudes towards anxiety and ways to limit its consequences for the fulfilment of the role of a student. It concludes with recommendations for pedagogical practice in order to eliminate the phenomenon of school phobia and limit its individual and social consequences.

Keywords: school phobia, student, teacher, anxiety

Introduction

The school environment allows the child to experience a wide range of situations and sensations, from the most positive to the most problematic and even negative. However, modern education is increasingly recognising the problems of pupils, sometimes referred to as school difficulties, sometimes more generally as anxiety, unjustified fear of the teacher, the subject or peers. In such circumstances, the question arises as to the source of these reactions, since fear is the loss of a sense of security, which for a child is an extremely important factor in its proper development. This observation is confirmed by Regulska, who points out that a sense of security "is one of the most important psychological needs and is of great importance for normal human development. It is expressed through the avoidance of situations that cause fear, distress and a sense of threat. Security involves a desire for stability and predictability and for protection from significant people, so people close to the child - parents, other family members, also educators from other environments (kindergarten, school) - play an important role in meeting this need[1].

Another issue is the child's sense of fear, which, as Ziółkowski writes, is sometimes a natural and desirable bodily response to danger. In some people, however, the intensity of anxiety in certain objectively safe situations can be so great that it interferes with normal functioning[2].

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[1] A. Rogulska, (2014). Zagrożone poczucie bezpieczeństwa u uczniów a zjawisko fobii szkolnej. [w:] L. Buller (red.), Socjotechniczne aspekty bezpieczeństwa w szkole, PTS, Warszawa s. 88.

[2] P. Ziółkowski, (2020). Fobia u dzieci w wieku szkolnym. Nauka i Społeczeństwo. Przegląd nauk społecznych, technicznych, medycznych i pedagogicznych, Nr 1, T. 1, s. 65.

Thus, from the perspective of the child, in the role of a learner, but also of the situations that trigger his or her anxiety, this dysfunctional picture of his or her functioning in the educational establishment is sometimes referred to as school phobia, first described by Broadwin[3].

Heyne and Rollings, however, point out that school phobia is one of the anxiety (neurotic) disorders and is related to the school environment and demands. The phenomenon of school phobia consists in reacting with a very strong fear that is disproportionate to the real threat. It manifests itself in the avoidance of situations related to the object of the fear, which can be a major obstacle to daily functioning in the school environment[4]. In a slightly different, narrower sense, school phobia is nothing more than a refusal to go to school, accompanied by a strong fear of school, which can occur at any point in the school career[5]. So that it can be said that each of the events that the child experiences, with a negative tinge to say the least, constitutes a specific area of investigation for parents, teachers and psychologists, in order to diagnose the causes of school phobia and to counteract its destructive consequences.

When diagnosing school phobia, the symptoms externalised by the child are particularly important. The main symptoms of school phobia that parents should pay attention to include somatic symptoms such as abdominal pain, bladder pain, nausea, vomiting, headache, panic attacks, fainting, loss of appetite, increased temperature, etc. They usually come on suddenly and are signalled by the child in the evening or in the morning before going to school[6]. The second area of behaviour specific to school phobia is the overt experience of fear of school[7]. Even if it is possible to prepare the child for leaving home, the mere thought of school will intensify these worrying symptoms. Unfortunately, in these circumstances, parents are faced with a rather difficult task, because if the child's behaviour becomes more frequent, the first decision should be to visit the family doctor. All too often, however, the diagnosis that parents receive is not always a diagnosis of school phobia, but merely a medical diagnosis of the symptoms.

An important aspect of a reliable diagnosis of the causes of school phobia is a thorough analysis of the peculiarities of the child's family environment, parental attitudes, family atmosphere and the nature of relations between its members. According to Ziółkowski, the overprotectiveness of parents and excessive fear for the child's health and life are of particular importance, which leads to the creation of hypothetically dangerous situations and events for the child and increases his fear of the world and

[3] T., Broadwin, (1932). A contribution to the study of truancy. American Journal of Orthopsychiatry, Vol. 2(3), pp. 253-259; za: M. Dąbkowska, (2007), Identyfikacja podłoża odmowy uczęszczania do szkoły w opinii dzieci i ich rodziców. Psychiatria i Psychologia Kliniczna, Nr 7, (2), s. 77.

[4] D. Heyne, S. Rollings, (2008). Niechęć do szkoły. Jak pomóc dziecku, które opuszcza lekcje i wagaruje. Gdańskie Wydawnictwo Psychologiczne, Gdańsk; za: A. Rogulska, (2014). Zagrożone poczucie bezpieczeństwa u uczniów … op. cit., s. 88.

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[6] A. Witkowska, S. Jabłoński, (1999). Co to jest fobia szkolna? Edukacja i Dialog, Nr 2, http://edukacjaidialog.pl/archiwum/1999,97/luty,146/co_to_jest_fobia_szkolna,813.html [dostęp: 07.11.2023r.]; U. Oszwa, (2007). Dziecko z zaburzeniami rozwoju i zachowania w klasie szkolnej. Vademecum nauczycieli i rodziców. Oficyna Wydawnicza "Impuls", Kraków, s. 59-64.

[7] J. E. Mc Donald, G. Sheperd, (1976). School phobia: An overview. Journal of School Psychology, Vol. 14(4), pp. 291-306). https://www.sciencedirect.com/science/article/abs/pii/0022440576900261 [dostęp: 07.11.2023r.]. P. Ziółkowski, (2020). Fobia u dzieci w wieku szkolnym …op. cit., 73.

people. This often leads to the child's expectation of failure and multiple threats from the environment. This becomes the reason for the child's self-image as weak and powerless in the face of the enormity of the world[8]. The author, like Eisen and Engler, also emphasises the importance of separation anxiety, which can take root in the lives of both the child and the parents, depriving them of mutual freedom, which has a definite negative effect on the young person's sense of security and increases school phobia[9].

In addition to identifying the causes of school phobia, it is also important to recognise teachers' reactions to the issue of school phobia and the intervention strategies they use. It should be emphasised that although the performance of diagnostic tasks is just as important as teaching, educating or caring, it is in this area that the greatest shortcomings are found, due both to the lack of knowledge on the part of teachers and to the lack of time resulting from overloading with other tasks. However, it is precisely in the case of deficits, disharmony and various disorders in the child's development and school functioning that observation is crucial. It allows the teacher to detect early signs of phobia and to take immediate action to eliminate school anxiety. The first noticeable behaviour of a child that researchers emphasise should be paid attention to is the child's isolation from peers, which is often misdiagnosed as shyness. The second characteristic symptom is low self-esteem, which manifests itself in a lack of confidence in one's own abilities, resignation from taking on tasks and open

dependence on others - peers, colleagues or parents. This type of behaviour is usually accompanied by tearfulness, inability to cope with interpersonal relationships and frequent absences from school, with the consent of the parents. Although the symptoms described are clear and it seems easy for an attentive teacher to notice them, as Kkadim and Khudhair point out, teachers have too little knowledge about school phobia in primary school pupils to be able to diagnose the problem accurately[10]. Therefore, they suggest that any behaviour of a pupil that worries the teacher in any way should be the basis for referring the pupil to a pedagogue, a school psychologist or a psychological and pedagogical counselling centre, which will allow a valid diagnosis to be made and professional help to be provided to the pupil, but also support to be given to his parents and teachers in the implementation of educational tasks. Using this type of solution will allow to restore and secure a sense of security in the school environment and constant monitoring of the atmosphere and relationships in the peer group[11]. Recommendations from professionals will form the basis for:

- taking action to integrate and build security in the classroom team,
- prevent social exclusion;
- provide psychological support for students who experience excessive anxiety in social situations, - provide space for students to express their feelings and opinions freely, careful monitoring of students' family situations,

[8] P. Ziółkowski, (2020). Fobia u dzieci w wieku szkolnym …op. cit., 73.

[9] A. R. Eisen, L. B. Engler, (2006). Szkoła bez lęku. Jak wygrać z lękiem separacyjnym u dziecka? Wydawnictwo Helion, Gliwice; za: Ibidem, s. 73.

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16 (03), p. 519, https://www.pjmhsonline.com/index.php/pjmhs/article/view/521 [dostęp: 07.11.2023r.].

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- providing students with access to supportive conversations with a school psychologist,
- taking care of the mental condition of teachers so that their fatigue does not translate into excessive demands on students,
- organizing meetings to support both teachers and parents in understanding the needs of teenagers[12].

All researchers of the problem emphasize the need to immediately provide professional care to children suffering from school phobia. Ignoring, not noticing or lack of interest in this problem often leads to irreversible, negative effects affecting the child's quality of life in the future. This is due to the persistence of disorders in the psychosomatic sphere: speech disorders, poor well-being, lack of self-confidence, abnormal personality development and lack of subjectivity, consolidation of abnormal patterns in social relationships and the assumption of social roles, disorders in moral development, inability to cope with difficult situations, etc. In the educational sphere, in turn, reluctance to participate in school activities will result in a low level of effectiveness in acquiring knowledge and competences, as well as the accumulation of school failures[13].

It is worth noting, however, that, according to Krzyżaniak and her co-authors, a child at school does not remain defenseless in the face of experienced fear. On the contrary, it spontaneously makes various attempts to reduce[14] or remove it. However, following Karolczak-Biernacka, researchers indicate 9 categories confirming students' activity in minimizing this phenomenon[15].

Table 1 Categories for reducing or removing anxiety

Category	Factors that remove and/or reduce anxiety in the child/student
Constructive task activity	limiting contact with the source of anxiety: "I don't study until the last moment";
Constructive substitute activity	undertaking other activities, e.g. contacts with friends;
Thought manipulation	e.g. belief in happiness, eliminating unpleasant thoughts;
Attention manipulation	focusing attention on other objects;
Value manipulation	reducing the importance of failures;
The "I" foundation	increasing self-confidence;
Intentional passivity	protraction;
Intentional relaxation activities	e.g. sleeping;
Mimowolne reakcje rozładowujące	laughter, jokes.

Source: own study, based on: B. Karolczak-Biernacka, (1992). Lęk szkolny. Nowa Szkoła, Nr 9, s. 528-535; za:. Krzyżaniak, R. Lepka, B. Stawińska-Witoszyńska, M. Krzywińska-Wiewiorowska, J. Skommer, (2009). Ocena lęku szkolnego u dzieci i młodzieży miasta Poznania. Problemy Higieny i Epidemiologii, Nr 90(1), s. 83.

This synthesis of nine categories of children's management of anxiety shows possible and often very effective attempts to reduce it. These mainly concern the pupil's

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[12] Ibidem
[13] Plewińska A. (2007). Konsekwencje lęku szkolnego. „Edukacja i Dialog", 4, s. 54-59.
[14] A. Krzyżaniak, R. Lepka, B. Stawińska-Witoszyńska, M. Krzywińska-Wiewiorowska, J.

Skommer, (2009). Ocena lęku szkolnego u dzieci i młodzieży miasta Poznania. Problemy Higieny i Epidemiologii, Nr 90(1), s. 83.
[15] B. Karolczak-Biernacka, (1992). Lęk szkolny. Nowa Szkoła, Nr 9, s. 528-535; za: Ibidem, s. 83.

independent activities, but in many of the categories it is necessary to support and consolidate the habits developed in order to manage school anxiety consistently.

However, if the child is not supported in crisis situations, school phobia will develop, leading to a loss of security and increased anxiety, including separation anxiety from parents. Elliot makes no secret of the fact that school phobia is also a source of stress for parents, teachers and school management. He also stresses that it has a negative impact on the child's psychosocial development and can even limit the child's education, despite the child's intellectual capacity[16].This results in many unfavourable situations for the child and often for the family. Therefore, these most important environments for the pupil, which include the family and the school, should create the conditions for optimal development and safe functioning. From a research point of view, however, a rather important issue is clearly highlighted, namely the first and most important signal, which is the refusal to go to school. According to the author, it is these students who perform worse academically and who may have long-term consequences such as school failure or dropping out of school[17].

School phobia and teachers' activities
Supporting the pupil as one of the teacher's tasks requires the application of expertise, empathy, a therapeutic approach and a constructive assurance of willingness to provide such help. The situation of the pupil with school phobia therefore seems to be under control, but it is a growing concern among teachers. Indeed, Salemi and Brown believe that the public health implications of school phobia are significant. In addition, they recognise that different school staff can play a key role in identifying school phobia. The pathology of school phobia can be serious. School health educators and teachers need to be aware of its symptoms and the profile of those at risk in order to provide early intervention. The prevalence of school phobia varies according to its source. Therefore, early educational intervention strategies should be comprehensive and coordinated, but also integrated with existing school health programmes[18].The mentioned activities are mainly the result of the specific tasks of the school, specialists, the teacher, but also the parents, who should be involved in the support of the child/student. We are talking about the teacher's diagnosis, observation of the student's behaviour and, as Mądry-Kupiec and co-authors point out, searching for answers to a number of questions about the causes of the phobia, but also trying to understand the sense or meaning of the message conveyed by the symptom[19]. However, Ekamn and Davidson point out another important condition, which is to pay attention to the nature of the emotions the child is experiencing, as these become the compass that determines the direction of the child's aspirations, values and behaviour. Emotions can be directed:
- towards people (anger, aggression)
- towards people (love, friendship);
- Away from people (fear, anxiety);
- Against oneself (depression, despondency)[20].

[16] J. G. Elliott, (1999). Practitioner Review: School Refusal: Issues of conceptualization, assessment, and treatment. Journal of Child Psychology and Psychiatry, Vol. 40, pp. 1001-1012.

[17] M. Dąbkowska, (2007), Identyfikacja podłoża odmowy uczęszczania do szkoły.. op. cit.

[18] A. Salemi, K. Brown, (2003). School Phobia: Implications for School Health Educators. American Journal of Health Education, Vol. 34 (4), p. 199. https://doi.org/10.1080/19325037.2003.10761864 [dostęp: 02.03.2024r.].

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Thus, the teacher's actions, as can be seen, must not be random, but coordinated and clear to both the student and his family, school and often peers. Therefore, an important role, as Ziolkowski points out, is attributed to the perception of the educational situation as stressful, because the main role in it is played by the teacher and the characteristic climate of the classroom built by him or her, which consists of the conviction about the role of the school and the attitude towards students and their parents[21]. Renata Winkel, who presented the role of the teacher in creating a non-constructive influence on the classroom atmosphere, singled out the teacher:

- aggressive, anxious makes unreasonable demands of pupils;
- internally tense constantly checking themselves and the students to ensure that tasks are being done correctly;
- anxious and insecure projecting their fears, insecurities and frustrations onto the pupils;
- inattentive unaware of children's problems and insensitive to what is going on in the classroom[22].

Therefore, it seems that a child's/student's school phobia may have its source in the teacher himself, his approach to the student and the demands he makes on him. This fact is confirmed by Martyniuk, who points out that the causes of school phobia can be many, and among them the most troublesome is the fear of the teacher[23]. From this point of view, we note the

question of the necessary pedagogical balance, the 11rganization11tion of teaching and learning activities. However, it cannot be overlooked that school phobia "is a neurotic disorder related to the school environment and its demands. Anxiety is often associated with vegetative symptoms and can affect both the cognitive and emotional domains. Family factors, the psycho-physical characteristics of the child and school-related factors all have an impact on the development of this disorder"[24]. In this context, the teacher is responsible in two ways. With regard to the first assumption, we are talking about the teacher's personality, his approach to the pupil and his understanding of the pupil's difficulties. With regard to the second, we see here the role of the observer and diagnostician who, by looking at the student's problems, sees possible ways of solving them.

At this point, it is worth asking the question about the nature of the teacher's tasks in relation to pupils with school phobia: what measures can be taken to reduce the phenomenon of aversion to school, anxiety or, consequently, school phobia? Bednarkowa and Milo believe that it is important for teachers to cross boundaries, to move away from the known and the familiar, to look for new (creative) solutions, to experiment, to try innovations and to explore the tension between giver and receiver (also traditionally understood as teacher and student), which should become the basis for supporting the dynamically developing human being[25]. Apart from this, one of the

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[21] P. Ziółkowski, (2020). Fobia u dzieci w wieku szkolnym. Nauka I Społeczeństwo. Przegląd nauk społecznych, technicznych, medycznych i pedagogicznych, Nr 1, Tom 1, s. 74, DOI 10.24426/nis.v1i1.203 [dostęp:02.03.2024r.].

[22] E. Petlak, (2007). Klimat szkoły, klimat klasy. Wydawnictwo Żak, Warszawa, za: P. Ziółkowski, (2020). Fobia u dzieci w wieku szkolnym … op. cit., s. 74.

[23] B. Karolczak-Biernacka, (1991) Stres szkolny ucznia, [w:] B. Hołyst (red.), Człowiek w sytuacji trudnej, Polskie Towarzystwo Higieny Psychicznej,

Warszawa, s. 132; I. Obuchowska, (1993). Lęk, lęk szkolny, hasło [w:] W. Pomykało (red.), Encyklopedia pedagogiczna, Fundacja „Innowacja", Warszawa, s. 345; za: W. Martyniuk, (2010). Uczniowskie metafory szkoły. Teraźniejszość-Człowiek-Edukacja, Nr 2(50), s. 73.

[24] P. Ziółkowski, (2020). Fobia u dzieci w wieku szkolnym… op. cit., s. 79.

[25] W. Bednarkowa, M. Miłoń, (2017). Nauczycielskie transgresje w edukacji elementarnej. Lubelski Rocznik Pedagogiczny. T. XXXVI, z. 1, s. 54

main tasks of the teacher should be to actively support the pupil and gradually solve his problems. These postulates are also shared by Kocór, who argues that effective support for the pupil is about the appropriateness of the type of difficult situation to the type of support received, according to the principle: "I help you so that you can help yourself in the future"[26]. It is therefore important to support the pupil within reasonable limits, with the aim of developing his independence and his ability to cope with difficult situations in the future, and even to come to the aid of others[27].

In this context, the work of the "average" teacher should not be limited to the 12rganization and implementation of the didactic and educational process. He cannot, therefore, be content with simply dealing with the pupil's problems; he is obliged, at the very least, to be aware of the difficulties the pupil is experiencing and to enable him to seek specialist help.

Instead of a summary

This brief picture of school phobia in its perspective is not an exhaustive study, but a signal that this phenomenon is still a significant problem for the child, but also often for his family and teachers. For this reason, the emotional aberration in which the pupil finds himself must first of all be supported, and the two most important environments for the child - the family and the school – must be directed towards comprehensive psychological and educational support. There is no doubt that in the context of this reflection, and in accordance with Martyniuk's assumptions, the school is perceived as a non-negotiating institution that depersonalises the student, and, as it turns out, this is not an isolated opinion, as this is the tone in which the opinions of students resound[28]. In addition, a pupil who experiences constant failure may also suffer from other emotional disorders. An extreme form of these disorders is the school phobia, i.e. the situational phobia of children and adolescents, whose object of fear is school, its related subjects and its characteristics[29]. However, the search for a balance between the above-mentioned conditions leads to the assumption that the high quality of the teacher's work depends on his or her effectiveness in recognising students' disorders, including anxiety or school phobia, and in effectively seeking therapeutic solutions. However, the search for a balance between these conditions leads to the assumption that the high quality of a teacher's work depends on his or her effectiveness in recognising pupils' disorders, including anxiety or school phobia, and in effectively seeking therapeutic solutions. Therefore, it can be said that due to students' anxiety problems, these are desirable teacher competencies that should be improved in both pre-service and in-service teachers. In addition, self-improvement of pupils in the process of solving school problems – fears and anxieties – can be considered important. Here again, a special role can be attributed to teachers, as they can give talks and training on how to recognise and protect against school anxiety and phobia as part of parenting hours, workshops or webinars for students and parents. After all, it must not be forgotten that the role of the teacher

[26] Por. S. Kawula, (1996). Spirala życzliwości: od wsparcia do samodzielności. Wychowanie na co Dzień, Nr 10-11, s. 14-17.

[27] M. Kocór, (2018). O potrzebie badań nad wsparciem uczniów w trudnych sytuacjach w rodzinie i szkole. Prima Educatione, Vol. 2, s. 101. DOI: 10.17951/pe/2018.2.99-112 [dostęp: 02.03.2024r.].

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is not only to educate and nurture, but also to support the student and his or her family. Unfortunately, school phobia, as Elliott writes, is a source of great stress for parents and school management, has an adverse effect on the child's psychosocial development and, despite the intellectual capacity, limits the education of the[30].

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THE IMPORTANCE OF THE QUALITY OF SOCIAL INTERACTIONS BETWEEN TEACHERS AND PUPILS IN BUILDING A SAFE SCHOOL ENVIRONMENT - AN ANALYSIS OF TEACHER EVALUATION FROM THE PUPIL'S PERSPECTIVE

Markéta Švamberk Šauerová

Abstract: *The text presents a case study. The case study is used from the author's practice. The social interaction assessment was conducted as part of a project working with a particular classroom where there is an extremely high number of children with behavioural difficulties. There is a lot of noise, pupils find it difficult to follow school and class rules and most teachers do not like to teach there. As part of a comprehensive programme of work with this class, aimed at building a safe school environment, an evaluation of the teachers from the pupils' perspective was carried out. On the basis of the evaluation, a follow-up analysis of the typical manifestations of a "favourite teacher" and an "unpopular teacher" (according to the pupils' subjective evaluation) was carried out. This analysis pinpointed the source of problematic behaviour of pupils and served as a basis for suggesting changes to improve the situation and build a safe classroom climate.*

Keywords: *social interaction, pupils, problem behaviour, teachers, safe school climate*

Introduction

The quality of the social interaction among the teachers and the pupils is one of the important factors influencing the educational process with all its participants. The level of their mutual communication is influenced by the level of the communicative skills of the individual participants and their idea of the educational process and their approach to it. The ideas of the educational process as a whole (or particular educational aspects) can be in mutual agreement or in contrast. These factors significantly influence the level of the social climate, and its quality has an impact on the children's attitude to the educational process and to the ranking of education in their system of values. The approach of teachers influences their way to give feedback to pupils who form their self-concept based on this feedback. This research focuses on the essential areas of social interaction in school.

Important aspects of communication between teachers and pupils are the choice of respectful communication (communication without communication stops), addressing them by their first name, and solving pupils' problems individually without the presence of others. Other essential factors in social interaction between teachers and pupils are empathy, trust, and pedagogical tact.

The importance of quality of social interactions in school in the concept of school success comes to the fore especially in the increase of pupils with so-called

relative school failure (e.g. Hrabal and Pavelková, 2010; Švamberk Šauerová, 2019; Ryberg, R., et al., 2020). This is encountered in those pupils who have at least average aptitude and have not yet achieved at least average results at school. Frequent factors behind relative underachievement tend to be specific learning/behavioural disorders not correctly recognized (e.g. the teacher perceives the pupil as stupid, rude, without appropriate mental talent - see Švamberk Šauerová, 2016), anxiety or shyness (see: Švamberk Šauerová, 2022), also specific classroom climate (e.g. incipient bullying, lack of a safe climate – see: e.g. Čapek, 2010), specific communication/interaction between teacher and pupil(s) (again, lack of a safe classroom climate - Švamberk Šauerová, 2019, Ryberg et al., 2020).

The quality of social interaction especially affects the formation of the pupil´s own self-assessment and concept.

In the last decades, the quality of communication has been emphasized as one of the dominant factors in effective education. It stems from the great role of the individualization as a new paradigm that puts the respect of individual educational needs in its centre.

In this framework, the effective communication is connected to the formative assessment and respectful way of communication on the teachers' side, and building communication skills on the side of the pupils.

A positive communication style in the educational process is closely related to the formation of a positive self-assessment of pupils.

Self-assessment of pupils has received increasing attention in recent years, among other things also in relation to coping with school requirements, especially to the issue of school success and failure - respectively

in the context of school performance assessment (cf. e.g. Urban and Urban, 2018). Experts do not only focus on the importance of self-assessment in the academic environment, but also in the following contexts: employment (e.g. Zimmerman, Moylan, Hudesman, White and Flugman, 2011; McNall and Michel, 2017; León, Augusto-Landa and García-Martínez, 2021; Tomšíková, Smékalová and Slavík, 2014; Novotná and Nišponská, 2017; Fišer et al., 2016), the influence of self-assessment in the overall educational career of an individual (e.g. Karaman, 2021), when self-assessment supports and maintains students' approach during the beginning of schooling and throughout the whole primary school (Vasileiadou, Karadimitriou, 2021; Panadero, Jonsson, Botella, 2017; Broadfoot, 1996; Laufková, 2017).

In view of the above, it is therefore necessary to pay attention to the individual factors of teacher-pupils interaction and the overall quality of their social interaction. In the text, we will also focus on the components that influence the communication in the educational process.

Graph 1 presents the basic factors that influence the interaction among teachers and students. From this graph, I would like to select those parts that are significantly related to school success and to the formation of attitudes and values of individuals who participate in this interaction. These attitudes significantly affect the impact of the whole educational process.

In educational process it is very important that teachers and pupils have a specific understanding of the objectives and the expectations of the education and raising. Differing ideas of teachers and pupils in these areas are often the primary source of conflict and the emergence of negative attitudes (or mutual aversion) of one subject towards the other, which in turn

contributes to the emergence of a negative social climate of the whole class or leads to pupils' reluctance to learn (comp. Ezeanwu, Anyachebelu, 2020; Meskauskiene, 2015). We often encounter different ideas about the outputs of the educational process (resulting from the expected goals of education and training). Some teachers put a lot of pressure to perform on pupils (cf. Švamberk Šauerová, 2019, 2022) and expose them to disproportionate amount of stress. They are convinced that the student will achieve good academic results in this way.

Graph 1. Basic factors affecting the quality of "teacher – pupil" communication
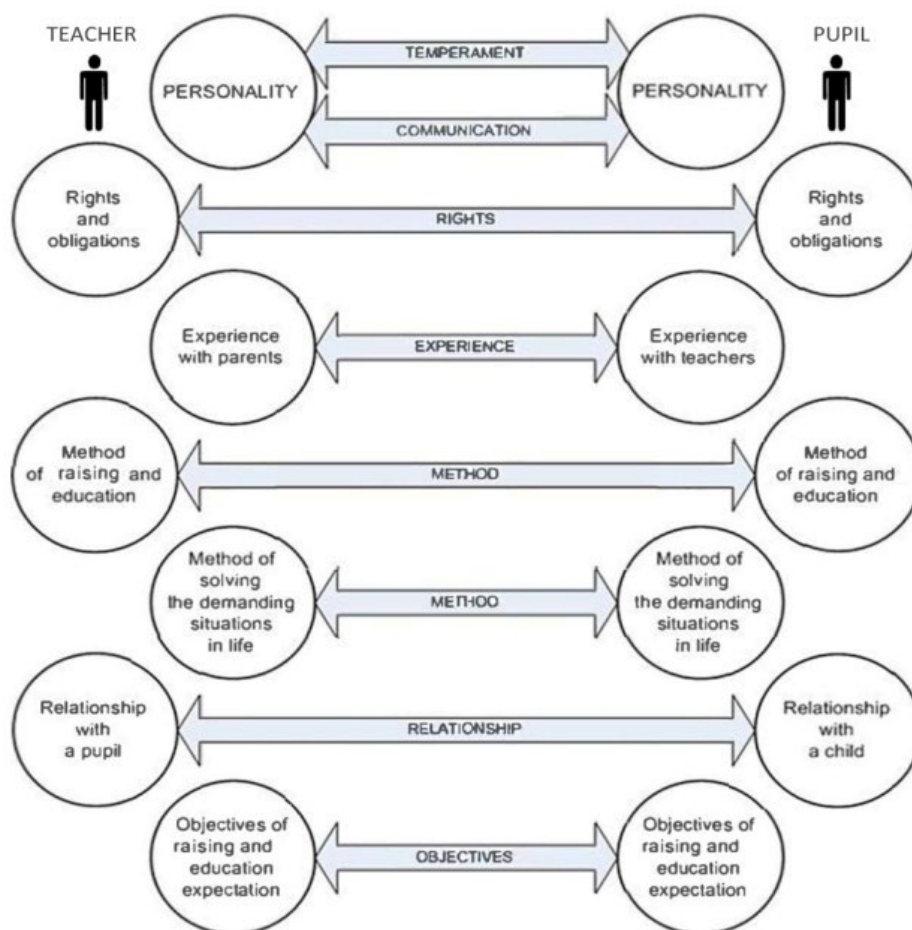
The second group of teachers strives to build a positive social environment of mutual cooperation. They feel the need to involve pupils in the formation of the school process, the operation of the classroom, offering various forms of cooperation.

In practice we unfortunately see many teachers' reluctance (or rather inability) to establish closer cooperation with pupils, because it is related to their social skills, which they sometimes lack.

Very important is also the concept of the educational style, which is related to the understanding of the results and objectives of the educational process.

The child is being approached either as an object of teaching in the process of

education or as a social object that creates a positive atmosphere. Teachers who prefer an authoritative way of education emphasize the importance of school performance.

The difference in the parenting style of the parent and the teacher can also cause the problem. Parents who prefer an authoritarian parenting style may feel that a liberal school curriculum lacks a guiding concept.

Parents who prefer an authoritative style of education but enrol their child in an alternative school may feel that schooling lacks order and concept. In contrast, parents who prefer a liberal upbringing and enrol their child in a traditional (conservative) school may feel a great deal of pressure from the school to perform, regardless of the child's personality.

When the educational concept is incongruent, children are under pressure from both social environments - school and family (comp. Santiago, Garbacz, 2016), which can lead to a compromised safe classroom climate.

Another important precondition of building a positive teacher-parent-pupil relationship and safe climate is the harmony of notion about a successful pupil (that may differ again). There we have to consider especially those pupils with specific educational needs demanding increased care and attention from teachers as well as from pupils.

Each participant in the learning process may also have a different idea of success. For one, success at school means having good grades, for another, having good relationships with classmates, for a third, that he likes going to school. The same goes for teachers. For one, a successful student is someone who likes going to school, for another, one who wins school competitions or one that can sit still for the entire class.

Methodology
Objective

The aim of the research is to highlight the importance of the quality of social interactions between teacher and student in working with the classroom collective. In the research investigation we focus on the analysis of subjective evaluation of teachers by pupils of a particular class in which a large number of problematic behaviours are diagnosed. Also, the part aim was to analyse the basic characteristics of a "popular" and "unpopular" teacher in a specific educational environment. The evaluation of social interaction was carried out within the project of working with a specific classroom where there is an extremely high number of children with behavioural difficulties. There is a lot of noise, pupils find it difficult to follow school rules and classroom rules, and most teachers do not like to teach there. As a part of a comprehensive program of working with this class, an evaluation of teachers from the pupils' perspective was carried out.

In the evaluation, students categorized the teacher according to their own subjective opinion: 'favourite', 'unpopular', 'neutral attitude'.

On the basis of this distribution and the evaluation of teachers' communication and interactions, an analysis of typical manifestations of a "popular teacher" and an "unpopular teacher" was carried out. This analysis pinpointed the source of the pupils' problematic behaviour, and it served as the basis for suggesting changes to improve the situation in this class.

The methodological basis of the text is the research of specialized literature, the analysis of the long-term diagnostic and consulting practice of the author and the analysis of case reports from her consulting and pedagogical practice.

Other backgrounds of this paper are:
- increase in children with academic problems
- increase in behavioural disorders among pupils
- increase in psychological difficulties among pupils
- the experiences as a school psychologist.

Method

The survey was conducted with 26 pupils (15 years old) and 21 teachers teaching in this class during the last three years. The number of teachers is very high, there is a frequent turnover of teachers. They do not want to teach in this class. The pupils are perceived as problematic.

The pupils used an evaluation questionnaire – a combination of marks in the field of popularity, comprehensibility of teaching, willingness to explain the material, fairness, communicativeness. They also assessed the specifics of the teacher's personality. A structured interview was conducted with the teachers who were evaluated in the questionnaire.

Pupils also ranked teachers in the categories of "favourite", "unpopular", "neutral" according to their own subjective opinion.

Stages of the research project
The basic stages of the project included: setting the basic factors in the concept of a "successful child" from the perspective of the teacher and the student. Creating an evaluation questionnaire to assess teachers' social interactions from the perspective of students in a specific class. In addition, a qualitative analysis of typical manifestations of a "popular teacher" and an analysis of typical manifestations of an "unpopular teacher" from the students' perspective.

On the basis of the analysis, proposals were made to solve the situation in the educational practice of this particular school.

Evaluation survey
The survey took place in a specific class of high school with significant difficulties in the behaviour of pupils. There are 26 pupils in the class, 11 girls and 15 boys.

The pedagogical-psychological diagnostics by the school psychologist (the author of the post) revealed a high number of gifted/highly gifted students, low mutual tolerance, individualism of students and a low willingness to cooperate. The diagnosis of students in the class was part of the comprehensive care of the class.

The pupils filled out the evaluation questionnaire in the presence of a psychologist whom they trust.

They rated the teachers who had previously taught in their class. Some teachers only taught in the class for a short time, because of the problems with the pupils they refused to continue teaching classes. Men refused to teach classes more often (3:1).

Reasons given for reluctance to teach in the classroom:
- class with significant behavioural difficulties;
- high number of gifted children with very poor grades;
- low level of teamwork;
- negative atmosphere in the classroom.

Results

The evaluated teachers can be divided into three basic categories: liked (popular), disliked (students often formulated the teacher as unpopular or horrible) and neutral relationship.

The assessment from the pupils' perspective is alarming. Qualitative analysis showed typical characteristics students reported to teachers in individual categories (liked, disliked, neutral) - see below.

With regards to serious findings, a specific investigation was carried out in other classes to be sure, and observations were also carried out in the natural conditions of the school (breaks, lunches).

The results of observation and control evaluation of investigations in other classes (without problematic behaviour) confirmed the unfortunately detected trend from the class under review, namely the high aggressiveness of "unpopular" teachers, which can really be considered as a fatal failure of the school management and the control mechanisms of the educational process.

Qualitative analysis of the questionnare – teacher characteristics (samples)
"Favourite" teachers (pupils´point of view)
„He has time to explain everything to us. He doesn't use the formal address[31]. He is a teddy bear, but very nice.

He will explain the subject to us and also what we don't understand from another cantor, I understand it from him. He takes his time, and I can correct the test. I always understand what I did wrong, I know how to do it better next time. He doesn't make a big deal out of it when I mess up or I don´t know something. They teach in a fun way. It's interesting, I'm looking forward to these classes. I like that he trusts us and doesn't always check, that's what makes a person motivated to work. I liked that when our class teacher was sick, that even though we belong to the naughty class, he took us skating with his class. "

"Neutral" teachers (pupils´point of view)
„I don't enjoy her teaching. I don't know, she's so bland, I don't like her much. He doesn't know how to teach; he doesn't seem to like it here. He doesn't like us, he says he's coming here for punishment, but he's trying. He is teaching us and with the ringing he goes away but doesn't rush. "

"Disliked" teachers (pupils´point of view)
„They call us idiots, yell at us that they will cut our throats, he would rather quarter us, mom should beat us until blood spurts out of us..., calls us "dick", „shits ", this teacher swears at us – e.g. „motherfucker ", „cunt ", „fucker "- it always makes me sick. He keeps scolding us that we are a terrible class and that he will punish us and punish us, and we will see who from whom. My parents were at school, and he told them that he would like to spank me every day, but since I have the kind of parents that I have, he won't hit me (I feel like he would hit another student, my mother works as a rescue director), I don't know why I shouldn't scold the teacher when they are acting wrong. This teacher is „horny ", he always talks weird, the girls get nervous, but we don't even find it funny. He's always complaining that we're terrible, that he has a lot of work and then he has to teach here - I mean, why does he do it if he doesn't enjoy it?

Analysis of teachers' opinions
The teachers were subsequently interviewed. The teachers who teach in this class perceive the class similarly, depending on which category they belong to. "Popular" teachers do not perceive the class as fundamentally problematic, they perceive a higher level of noise there, and at the same time they agree with the results of the school psychologist's diagnosis that the class is made up of exceptionally gifted

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[31] This teacher is generally the most popular at the school, he has an excellent results, the least

difficulties in behaving with pupils, he very often implements project-based teaching.

children and that their talents need to be supported (tendency to frequent discussions during the class/with the teacher).

Teachers from the "neutral" group perceive the class more as problematic, they are more influenced by the opinion of their colleagues from the group of "unpopular" teachers.

"Unpopular" teachers openly slander other teachers in class, publicly vent their aggression verbally, raise their voice in collegial discussions, act categorically at pedagogical meetings (I will not discuss this with you, they are "scumbags", they do not belong in a high school). The school management is not popular with the teachers and has a tendency to constantly punish the students. Aggressive behaviour of teachers is of no interest to the school management.

The school management has difficulty in "replacing" unpopular teachers, because most of the teachers in this class do not want to teach much (thanks to the high talent of the students and their frequent discussions, the class places higher demands on the teacher's pedagogical skills and resilience, as well as the ability to discuss and find less common solutions, which is not pleasant for all teachers.

Evaluation summary
Globally and nationally, as a result of the Covid-19 pandemic, we are seeing an increase in mental health problems, including an increase in aggression (WHO, 2022). Especially in schools, the social atmosphere has gotten worse, there is a higher level of aggression among pupils, and the aggressiveness of parents is increasing. Overall, it can be assumed that even teachers will not escape these consequences of the pandemic, and in the long term, the pandemic may also have an impact on the increase in aggression among teachers.

The data obtained shows a very high level of teacher aggression, which is unfortunately becoming the "norm" in this school. The teaching staff does not see the above results as a major problem. They claim, including the school principal, that if the pupils did not violate the school rules, the teachers would not be aggressive. Even though the cause and consequences can be understood in different ways, it is necessary to insist that the teacher is a professional in the school and in no way such manifestations as those found in our evaluation cannot be tolerated.

The actions of teachers have a significant negative effect on the pupils' self-concept, the pupils put themselves in the "worst class" category at school, they feel that there is no point in trying, they don't want to learn, they refuse to cooperate.

In practice, we see a major negative impact of poor social interactions between teachers and pupils on the overall classroom climate and on pupils' self-assessment, both on an individual level and on a group assessment level.

Limits and discussion
There are not many similarly focused studies, because we are touching on a very delicate topic, which is the vulgar and unethical behaviour of teachers.

These manifestations are often found in teachers with advanced burnout syndrome, in schools with poor management (inappropriate principal personality), unhealthy school climate. Nevertheless, similar results can be found e.g. in the research of Winding, Aust, Anderesen (2022) who investigated the link between aggressive behaviour of pupils and burnout syndrome of teachers in Danish schools.

The research of Suryaningrat, Mangunsong, and Riantoputra (2020), while focusing on disputes between teachers and parents, offers interesting points of comparison with our topic.

According to research by Troop-Gordon, Kopp (2011), the characteristics of the teacher-child relationship (closeness, dependence, and conflict) predict changes in peer victimization and aggressive behavior over the course of the school year. In their study Relational and physical forms of victimization and aggression were studied and changes in peer acceptance and number of friendships were tested as possible mediators. The results of their study indicate the importance of the U-Z relationship, specifically with regard to the long-term perspective and development of the student, the formation of the student's self-concept, and possibly the prevention of the student's risky behavior.

The aforementioned study (we mean Troop-Gordon, Kopp, 2011) examines the extent to which characteristics of the teacher–child relationship (closeness, dependency, and conflict) are predictive of changes in children's peer victimization and aggressive behavior over the course of a school year. Relational and physical forms of victimization and aggression were studied, and changes in peer acceptance and number of friendships were tested as possible mediators. Longitudinal data from 410 fourth- and fifth-grade students (193 boys; 217 girls) and their teachers (N = 25) were analyzed. Whereas dependency on the teacher predicted heightened victimization from peers, a close relationship with the teacher forecasted less physical aggression toward peers. Moreover, decreases in number of friendships partially mediated the link between dependency on the teacher and heightened relational victimization for boys.

We came to similar conclusions in our research, namely that a close and positive relationship with teachers leads to lower aggression towards their peers.

The primary limitations of our study include the fact that the evaluation was conducted by students from a classroom that is not satisfied with the teaching in the long term and has significant conflicts with teachers. Once significant data was found, a secondary evaluation was conducted in other classrooms, randomly selected across the school, to increase fairness.

For discussions with the school principal, results were pooled from all classes to increase the safety of the first responding class.

A standardized questionnaire was not used for the evaluation, the reason being the desire to evaluate the educational process according to the current situation.

The sample on which the evaluation was carried out is not fully representative, it is a very specific class, with significant behavioural difficulties, so the results cannot be applied to the whole teaching staff or to all pupils. However, in a given class group, the observed behaviour of teachers can have a major impact on the actual behaviour problem of the class/individuals, so despite these limitations, the study brings very concrete results to educational practice.

Another limitation of the study was the low willingness of the school principal to cooperate, unwilling to accept the results of the psychological investigation. As in other cases of bullying, it is possible to observe a pathological acceptance of the negative norm of current social interaction at the school. The unwillingness of the principal to cooperate with psychologists is well known, so it may also affect the results obtained

from teachers who are fearless, impunity and scold pupils publicly and in conversation.

Conclusions and recommendations for practice

The research results showed that the quality of social interactions between teachers and students is an important part of creating a safe classroom climate and forming a positive self-concept and self-esteem of the pupils. It significantly influences the student's motivation to fulfil school duties and overcome study obstacles.

The social competence of both – pupils and teachers – must be constantly supported in the educational process and their quality checked regularly

An important factor in promoting school success is the teacher´s confidence in the pupil (primarily their perception of the pupil in the categories of "good pupil", "cooperative pupil", "trying pupil"/ "lazy pupil", "stupid pupil", "uncooperative pupil", etc.).

According to our findings and in connection with the increase in pathological phenomes in society, it is necessary to create targeted programs to support the mental health and wellbeing of teachers and students.

Suggestions for practice resulting from the investigation:
- Recommendations for school director, that student behaviour must be considered in the context of teacher pathological behaviour.
- Limit pupil punishments.
- Interview the teachers from the „unpopular" category, terminate the employment of two teachers.
- Intensive work with the class, support of team cooperation, promotion of appropriate communication tools and strategies (communication skills training).

- Intensive cooperation with the class teacher, organization of regular classroom management classes, use of a project prepared for Czech Television (CT Edu School wellbeing, main author Švamberk Šauerová, 2023).
- Workshops for teachers – relaxation techniques, stress reduction, increasing resilience, increasing self-efficacy, formative assessment in teaching, assertive techniques with emphasis on selective ignoring.

For now, the management has only made the "necessary changes" - i.e. the exchange of two of the most aggressive teachers, the classroom will be moved from the basement to a higher floor, closer to the principal's office, in bright spaces, additional workshops are prepared for teachers – "communication with a problem student", "formative assessment", "mediation procedures in the teacher's work", an intensive and continuous work with children - as an example of a motivational approach, this class (as the only one in the school) was allowed to meet with a Czech Olympian (Lukáš Krpálek - possibilities of the author, who also works at the school, where Olympians are more often educated), the students conducted an interview, processed the interview and published it in the regional press.

In any case, this case study of the class shows the importance of the quality of social interaction and its influence on the success of students in the class.

This study clearly demonstrated the importance of communication in the self-assessment of pupils and the building of a safe climate in the classroom, as well as the importance of regular evaluation among pupils.

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SUPERVISION IN SCHOOLS: THE PERSPECTIVE OF SUPERVISORS

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Abstract: *The text presents the supervisors' view on the specifics of group supervision meetings with teachers. Supervision is a form of non-specific professional development that deepens understanding of complex pedagogical situations and, through that, strengthens the ability of (self) reflection, emotional regulation, communication, and cooperation with other teachers, etc. Through 20 interviews with supervisors working at schools, the specifics of teacher supervision groups, perceived obstacles on the part of teachers and schools, and professional dilemmas faced by the supervisors themselves were mapped out. The interviews show that supervisors believe the main challenge for teachers lies in the inadequate expectations surrounding supervision, which instils fear of control and evaluation among teachers. This concern stems from the lack of knowledge about supervision, as well as the isolated nature of teaching work and the prevalence of evaluation in schools. To ensure effective supervision, it is important to establish a safe environment in which teachers can identify their strengths and weaknesses and draw inspiration from the perspectives of others.*

Keywords: *Schools, teachers, professional development, supervision*

Introduction

The concept of supervision is gradually becoming established in the Czech education system. Schools can now receive financial support for supervision through ESF projects, and the offer is expanding to different types and levels of schools. Since 2010, there has been a Methodological Guideline of the Ministry of Education on the provision of supervision. Several professional associations, in particular the Czech Institute for Supervision and the Association of Supervisors of Helping Professions, bring together and train supervisors. The first specialized training for supervisors in education was offered in 2021. Over the past decade, four books and seven articles have been published in Czech peer-reviewed journals on the topic of supervision in schools, five of which were published in the last four years.

This list shows that supervision is gaining both organizational and theoretical-research background. However, the percentage of schools and teachers engaging in supervision still remains low. In 2019, 4.5% of teachers out of a total sample of 2,377 reported direct experience with teaching staff supervision. This is compared to 3.4% two years earlier in a similarly sized research sample (Smetáčková et al., 2020). This low proportion is indicative of the existence of barriers to the introduction of supervision and engagement in it. Some of these barriers can be attributed to schools, others to individual teachers or even to the

supervisors themselves. The first two areas have been explored in earlier articles (e.g., Kaihoi et al, 2022; Wyiono et al., 2021; Břízová & Šlajsová, 2021; Smetáčková & Vozková, 2021; Lazarová, 2009). This article focuses on the third area and provides a qualitative analysis of supervisors' experience of conducting supervision in schools.

Definition of supervision

Supervision is a form of collegial sharing of professional experience that occurs during regular meetings between supervisees and an external supervisor. It contributes to professional development (Baštecká, Čermáková & Kinkor, 2016). According to Hess (1980, p. 25), supervision is "pure interpersonal interaction, the general purpose of which is for one person, the supervisor, to meet with another person, the supervisee, in an effort to improve the supervisee's ability to help people effectively."

Due to its long tradition and psychological and psychotherapeutic roots, supervision has a sophisticated theory, and there is a body of research confirming its effectiveness in enhancing professional competence and reducing work stress (Hawkins & Shohet, 2016; Havrdová & Hajný, 2008). Supervision utilizes the effects of verbalizing emotions and structuring problem situations cognitively. It also builds on the principles of group dynamics, learning through experience, and peer feedback in a safe environment (Lee Harris & Anthony, 2001; McComb & Eather, 2017). These characteristics, combined with the strict requirements for supervisor qualifications, make supervision a relatively effective tool for professional development in a variety of work domains.

Supervision serves several functions. According to Hawkins and Shohet (2004, p. 60), these functions are formative, restorative, and normative. The formative function is related to education and involves deepening knowledge and skills that can help to better understand problem situations. The restorative function provides support for supervisees to acknowledge and accept their emotions, including negative ones such as sadness, helplessness, or anger. The normative functions relate to the management and control of quality work performance, both by the supervisee, whose supervision aids in self-reflection and self-regulation, and by the organization, which assesses performance against its principles and standards. The rationale for the normative function is that "the primary purpose of supervision is to protect the best interests of the client" (Hawkins & Shohet, 2004, p. 59). However, supervision does not consist of the supervisor assigning tasks or punishing supervisees, nor does it consist of reporting to supervisors. The entire supervision process takes place within a framework of ethical rules that regulate both the meetings themselves and the interconnection of their purpose and process with the broader work context.

Supervision can take place either individually or in groups (Havrdová & Hajný, 2008). In this article, we focus exclusively on group supervision, the specific characteristic of which is the instrumental use of the dynamics of collegial relationships. In a group setting, individuals interact and assist each other in engaging in a deeper and more complex reflection of the experienced events through questions and comments. In terms of outcomes, group supervision is specific in that it leads not only to changes at the individual level but also within the supervision group and the entire work team from which the participants in supervision come (Harris & Anthony, 2001). When supervision takes place within a stable work team, it strengthens communication and cooperation. However, the establishment of a sufficiently positive climate is a prerequisite, as creating a safe atmosphere is essential for effective supervision.

Supervision in education

Supervision is mainly utilized in psychotherapy, social work, and health care. However, it has also been recognized as a tool for the professional development of teachers and teaching staff (Lazarová & Cpinová, 2004). Current approaches to professional development in education emphasize its multifaceted nature and the importance of enhancing not only specific knowledge and skills but also cultivating broader personal and professional traits, as well as establishing connections between the individual and the group level. Avalos (2011, p. 10) defines teacher professional development as "a complex process that requires the cognitive and emotional engagement of the teacher individually and collectively, as well as requires the teacher's capacity and willingness to explore where he or she stands, what his or her beliefs are, and to seek appropriate alternatives for improvement or change."

Research on the effectiveness of teacher professional development confirms that positive outcomes primarily arise from the incorporation of the following five parameters in professional development activities: collaboration and feedback from colleagues; self-assessment and self-reflection; fostering positive changes in emotions, motivation, and attitudes; interaction and engaging personal experience; and the longevity and diversity of activities (Evans, 2002; McComb & Eather, 2017; Torff & Sessions, 2008). It is through supervision that these parameters are fulfilled, making it an appropriate part of professional development activities.

Supervision can be considered a form of non-specific professional development that focuses on the enhancement of general pedagogical competencies, in contrast to specific professional development that targets the acquisition of specific knowledge and skills. Non-specific professional development

aims to deepen self-reflection, promote self-knowledge, enhance understanding of complex situations in the school environment, and develop the ability to communicate more effectively in a group setting through improved communication, listening, and discussion with others. Consequently, teachers as supervised professionals are better equipped to monitor and address the interests of their clients or students (Lee Harris & Anthony, 2001; Hawkins & Shohet, 2004; Farrell & Jacobs, 2016).

Of these objectives, the development of the ability to reflect and self-reflect is particularly important. The ability to self-reflect has long been considered one of the central traits of professionalism (Schön, 1983). For example, Slavik and Siňor (1993) speak of reflective competence, which makes teachers prepared to reflect on and evaluate their own and others' pedagogical actions. Thus, teachers with sufficient reflective competence can diagnose their actions and gain insights from them to positively influence their future pedagogical actions. Self-reflexivity is a set of cognitive and metacognitive processes wherein teachers subject their own professional behaviour, experience, and thinking to critical thinking (Svendsen, 2016). It is a mental effort to solve problem situations based on a critical approach to one's own lived experiences (Marcos et al., 2011). Through this, new cognitive, emotional, and behavioural patterns are formed.

Collegial sharing is particularly effective when it takes place in a group, not just in a dyad consisting of one teacher and a supervisor. A greater effect has been shown for the development of self-reflection (Van Gyn, 1996). Engaging in group communication allows for a deeper focus on the experiences being described, helping individuals express themselves in a way that others can understand (Rodger, 2002). When teachers encounter differing attitudes and experiences,

tension is created that motivates professional learning (Simoncini et al., 2014). Švaříček et al. (2017) point out that sufficiently reflective conversations can lead to conflicts in the presented perspectives, inducing dissonance. Experiencing and overcoming dissonance is important as it allows for a deeper integration of change in professional development.

The greater effectiveness of group supervision compared to individual supervision has also been shown to reduce job stress (Kaihoi et al, 2022; Sasson & Somech, 2015). Groups provide stronger emotional encouragement and inspiration, along with concrete suggestions. This is also because supervision improves communication and collaboration among the teaching staff, enabling the entire team to better handle challenging situations and offer assistance to individuals under stress (Glazer et al., 2004; Birchak et al., 1998).

Characteristics of effective supervision
The positive effects of supervision can only occur under certain circumstances. One of these is the qualifications and competence of supervisors. Supervisors must have the appropriate education and training and adhere to standards and ethical rules. For example, the Czech Institute for Supervision (www.supervize.eu) outlines the following requirements for supervisors: a university degree in the humanities or medicine, a minimum of 15 years of experience in helping professions, experience in long-term supervision of individuals, completed training in self-experiential psychotherapy, and follow-up supervision training.

By the very nature of their profession, supervisors are expected to be guides assisting the supervised individual, team, group, or organization in perceiving and reflecting upon their work and relationships, enabling them to find new solutions to challenging situations. The role of the supervisor is to create a safe environment and to promote peer sharing among teachers through specific strategies. Optimal guidance often takes the form of facilitation and moderation, where the supervisor takes a backseat in terms of talking and only intervenes to maintain the flow of discussion, upholds a safe atmosphere, highlights key aspects of the problem and draws conclusions (Baštecká, Čermáková & Kinkor, 2016).

Supervision meetings are conducted by external supervisors who have no employment relationship or other affiliation with the teachers or the school management. This is an important factor for the conduct of supervision for two reasons (Pavlas Martanová, 2020). Firstly, it ensures a safe atmosphere. Since the supervisor has no other relationships with the participants, they do not feel threatened by the supervisor. They find it easier to share even unpleasant experiences in front of the supervisor, and they are open to the supervisor's suggestions because they are not assuming any hidden agenda. Additionally, the supervisor is bound by confidentiality and is not allowed to discuss the topics discussed during the supervision session with anyone outside of it.

The supervisor's independence is also valuable because the supervisor possesses limited knowledge of the specific school environment. Consequently, teachers provide a more detailed account of the realities of the school, highlighting even seemingly ordinary aspects that teachers may overlook. The supervisor also asks their own questions that the 'insiders' are no longer asking. This stimulates cognitive conflict – bringing or reminding information that is cognitively challenging, encouraging constructive confrontation of different perspectives, and structuring the course of the supervisory encounter so that emerging tensions are exploited and cognitive restructuring occurs

as a result (Kaihoi et al., 2022; Simoncini et al., 2014).

A basic condition for effective supervision is to achieve a sense of security for all involved. Only when supervisees do not fear rejection and potential sanctions can they be sufficiently honest in sharing their experiences and open to change. Safety is established through various factors, primarily personal attitudes towards supervision and one's participation in the supervision session. It also involves having a mindset that enables communication of one's own experiences and active listening to the experiences and comments of others. Respect for all participants, including the supervisor, and adherence to established rules are also crucial (Rodger, 2002; Farrell & Jacobs, 2016). Some of these factors depend on how supervision is implemented in a particular school and communicated by the management, while others depend on the personalities of individual teachers and the composition of the group. The supervisor has only limited control over these factors (e.g., in how they agree on the contract with the management). However, other factors are closely tied to the supervisor's personality, approach to supervision, and working style.

This article presents a study that is part of a broader research project titled "Supervision – Prevention of Teacher Burnout" conducted by a team at the Department of Psychology, Faculty of Education, Charles University, with financial support from the Czech Technology Agency. The broader research aimed to investigate the various forms of collegial sharing in schools and identify the perceived positives and negatives from the perspective of different actors. The qualitative sub-study focused on the experience of supervising professionals conducting supervision in schools, possibly in comparison to other areas where they provide supervision. Specifically, the study sought to answer the following research questions:

1) How do supervisors/practitioners practice supervision and what do they actually do during supervision in schools?
2) How do supervisors/practitioners perceive their own role in the context of the education system and schools undergoing supervision?
3) How do supervisors/supervisors perceive teachers' attitudes towards supervision?

Methodology

The study focused exclusively on supervisors providing group supervision to schools and educational institutions. A total of 20 supervisors, both male and female, were interviewed. Table 1 presents the structure of the research population according to five key criteria. The supervisors participating in the study were contacted through two methods: firstly those working in schools participating in the main research (7 individuals); secondly individuals randomly selected from the list of the Czech Association of Supervisors (10 individuals); with additional 3 participants identified through snowball sampling. The selected individuals were invited to participate in an interview and, if they agreed, they were asked to verbally confirm their informed consent at the beginning of the interview.

Table 1: Composition of the research population

Respondent code	Gender	Age	Length of supervisory experience	Length of supervisory experience in schools	Supervision in another field
R1	Woman	64	16	2	Yes
R2	Woman	42	3	3	Yes
R3	Man	61	21	10	Yes
R4	Woman	51	22	15	Yes
R5	Woman	36	10	8	Yes
R6	Woman	40	7	3	Yes
R7	Woman	52	18	7	Yes
R8	Woman	40	5	2	Yes
R9	Woman	60	16	16	Yes
R10	Woman	50	15	15	Yes
R11	Man	62	15	8	Yes
R12	Woman	62	21	20	Yes
R13	Woman	42	15	10	Yes
R14	Woman	38	10	3	Yes
R15	Woman	40	10	5	Yes
R16	Woman	62	20	20	Yes
R17	Woman	46	12	10	Yes
R18	Man	47	10	5	Yes
R19	Man	42	15	7	Yes
R20	Woman	48	8	8	Yes

The study involved 16 female supervisors and 4 male supervisors, all of whom met the requirements of the Czech Association for Supervision. The respondents' ages ranged from 36 to 64 years, and their supervisory experience in schools ranged from 2 to 20 years. Most supervisors worked in Prague and the Central Bohemia region.

A semi-structured interview was conducted with the respondents, focusing on their perspectives on group supervision in schools. The supervisors who participated in the research conduct supervision not only in schools but also in other areas such as social work, health, and commercial companies. This allows them to compare different settings and describe the specificities of supervision in schools. Each specific setting has its own characteristics, including incentives, barriers to participation in supervision, communication practices, and established ways of presenting collegial sharing. The interview therefore explored the trajectory of supervision, the concept of supervision, specific supervision practices, and a comparison of supervision in and out of schools.

A thematic and content analysis was conducted based on the interviews (Braun & Clarke, 2013; Mayiring, 2004). The themes and categories identified related to three areas (thematic units): 1) teachers' interpretations of supervision, 2) supervision practices, and 3) experiencing the supervisory role. Each area represents three levels of supervision (supervisory identity, supervisory practices, and perceived reactions/shows of supervised

teachers), which provide insights into the specifics of supervision in schools. The following chapters will introduce the different levels in turn.

Results

Supervisors' perspective on teachers' attitudes toward supervision

The analysis of interviews with supervisors shows that teachers' attitudes toward supervision are considered crucial for the subsequent course of group supervision, according to supervisors. When teachers have positive attitudes, supervisors do not have to overcome initial distrust or resistance and the supervision process proceeds smoothly. Conversely, when teachers initially have negative attitudes, supervisors need to address these issues first and the main focus of supervision is delayed.

Supervisors ascertain teachers' attitudes either by consulting the school management who contracted the supervision or directly from the participating teachers themselves, either by asking them directly or by inferring them from teachers' expressions and speeches. In any case, supervisors' perceptions of teachers' attitudes toward supervision form a starting point for them when deciding the content and mode of communication The following themes were particularly prominent in teachers' attitudes, as perceived by supervisors: ignorance, expectations, individualism, self-work, and teacher overwhelm.

Regarding group supervision in schools and teachers' attitudes toward supervision, 16 (out of 20) supervisors mentioned that teachers have a lack of knowledge about supervision and little awareness of what supervision is and how it can benefit teachers. This is mainly because supervision is not yet widely implemented in schools *(R1: Most teachers have no experience; R2: Teachers do not know anything about*

it, it is an unexplored territory; R1: They have no idea what supervision can be useful for; R1: Supervision is a big unknown for schools; R14: Teachers are not familiar with it. R8: Schools and kindergartens are largely unfamiliar with supervision and are still unsure not only about what supervision can do for them but also about what it is). Therefore it is necessary to inform teachers about what they can expect from supervision and how it works at the beginning of the collaboration, not only at the start of the supervision sessions themselves but well in advance of them, so that teachers can show interest in the offer to participate in supervision in the first place. In the absence of knowledge about what supervision is, teachers logically do not respond positively to the offer of voluntary participation because they do not understand what is being offered and how it could benefit them.

Lack of knowledge exists before the introduction of any new tool. According to supervisors, it can be eliminated by increasing awareness within the pedagogical community, starting at the undergraduate level of training: *R1: The problem is that it is not taught at universities. During the study of social sciences, students experience supervision, then they go into practice with such experience; but not teachers, they have nothing like that at university.* Supervision is not part of the curriculum for teachers at universities. Occasionally, it may be encountered in elective courses or workshops, but it is not a mandatory part of the study programme. Supervisors mentioned that where teachers have prior experience with supervision from university studies, they are more motivated to participate. They have a better understanding of what supervision is and what to expect from it. They can then pass this knowledge on to the teaching staff, avoiding speculation and assumptions about the nature and purpose of supervision.

Related to the (lack of) knowledge about supervision are the expectations that teachers have towards it. According to half of the supervisors, teachers usually have inadequate expectations of supervision. However, it is teachers' expectations that play a key role in how supervision is ultimately perceived and received by teachers. Expectations can be shaped by one's own experiences, but also by received experiences. Supervisors agreed that the expectations of individual teachers need to be addressed and made aware of, preferably at the very beginning of the collaboration with the group.

One aspect of teachers' expectations, as mentioned by 8 supervisors, is the fear of inspection and evaluation of their work: *R2: Their job is to evaluate, it takes a long time to establish a trusting atmosphere. The supervisor is not an inspection and does not evaluate, does not advise, is not even a mentor. They often demand it from me, some teachers find it difficult to accept, they find it hard to understand what supervision can bring to them; R2: Teachers operate in a different communication set-up, not so pro-social, they expect control, advice, and evaluation; R18: They often take supervision as a form of control, that they have to do some work during supervision, they take it as completing a task, they are used to such an approach from their work.* This finding is supported by other findings from the wider research where, for example, in one school supervision was taking place but was referred to as 'chatting sessions' because the label 'supervision' evoked being controlled by experts and supervisors and was considered a 'bad word'.

The school environment is characterized by pervasive control and evaluation. This applies not only to pupils but also to teachers, making it difficult for them to break out of the mode of evaluation and control. According to supervisors, fear of direct control or being judged against an ideal performance prevents teachers from opening up sufficiently. Therefore, supervisors work hard to elucidate the underlying expectation of scrutiny from the outset (including why teachers expect scrutiny and evaluation) and explain that supervision is neither evaluative nor controlling. The corrective experience of a non-evaluative environment is crucial for teachers.

Supervisors also mention another common but erroneous expectation that teachers have of group supervision, which is advice, guidance, and direction. *R1: They expect advice and guidance on how to deal with the relationship between children, and parents; R2: It takes a long time to establish a trusting atmosphere, to clarify that the supervisor is not an inspector and does not evaluate, does not advise; is not even a mentor. They often demand it from me, some teachers find it difficult to accept, they find it hard to understand what supervision can bring to them.* Supervisors need to clarify and explain that they are not providing advice and explicit guidance, nor are they leading the way. They provide teachers with a safe space where everyone can express themselves. Teachers can get new perspectives on the situation from colleagues or from the supervisor, and then decide for themselves how to deal with the information in practice or how the information and messages will affect their approach to their work as a teacher.

Control, combined with the desire for clear instructions, instils fear of failure and of being exposed for their mistakes in teachers. However, to some, it may also give hope that they might be able to correct their own mistakes through supervision. However, supervisors believe that such an expectation is misplaced. *R3: Teachers often see supervision as a method that highlights their mistakes, so there is little*

openness sometimes; R6: Teachers themselves would not seek this out, they feel they are failing, they do not see it as prevention. They see it as an intervention, they see it as a threat and branding; R10: And I feel like they don't want to reveal too much about what's going on and what they're dealing with, that they might see it as incompetence if they talk about having a problem with something and that they're struggling with pupil relationships. Fear of failure, according to half of the supervisors, may also be one of the reasons why teachers fear supervision and are uncomfortable with it in some ways.

The fear of failure is even more pronounced if the teacher is mentally fixed on the idea that she/he must be perfect. In order to detect mistakes in others, she/he must be flawless (such an approach is difficult to resist in the dominant discourse of the school). What is important in this case is the intimate shared space that the supervisor and supervisees create. This is supported by the supervision rules agreed upon by the teacher and supervisor at the start of the group meeting. This includes defining the topics that can be addressed in supervision, how communication takes place in supervision, and in what form attitudes, emotions, needs, etc. are communicated and expressed. Fear of failure (or fear of being seen to fail by others) is seen by supervisors as typical for the school environment. They expect it and see the need to gradually diminish this fear through the experience of well and safely conducted group supervision. It is therefore a time-consuming process.

At the outset, supervisors assess the current climate in the group and how it can be adjusted. If they determine that the participation in the group is threatening to the teacher, some try to negotiate with the school management to include an offer of individual supervision sessions. After experiencing individual supervision,

teachers may be encouraged to participate in group supervision. However, the ability to offer two supervision options is limited by the time available to supervisors and the financial capacity of schools. Furthermore, some principals may lack understanding of the nature of supervision.

Group and individual supervision often provides teachers with their first opportunity to experience a sense of intimate space and the opportunity to express themselves openly without being exposed to evaluation or criticism. According to supervisors, for many teachers, group supervision is also often the first and sometimes the only experience they have of working in a group. In school, teachers do not have opportunities for group activities. Instead, they typically work independently – they have their own timetable, classroom, and are responsible for a specific part of the teaching process. *R2: Teachers are not observed during their normal work. I perceive that teachers, for example at the lower grades, are like 5-10 lonely islands; each one works alone and they are only formally supervised. They are not used to consulting the entire group; instead they talk to whoever has a similar view on the issue, but confrontation and constructive criticism and things like that, they don't seek that out; R6: A teacher is a soldier in the field and is used to working alone; R7: Teamwork is not a common habit in education, they work as solitaries. Bonding with each other, uniting based on shared values is, I would say, in its infancy in education.* Based on their experiences with teachers, the supervisors' statements suggest that they perceive teaching as an individualistic and/or isolationist profession. There is not enough emphasis on developing a sense of collective consciousness and teamwork in schools.

The supervisors perceive the isolationism and individualism practiced in schools as characteristics that impact the group

supervision process. This results in a lack of interest and reluctance to share one's experiences with others. Supervisors need to take this into account both when formulating the assignment and when considering challenges during the actual process. Fundamental to them is the dilemma between group and team supervision. *R6: In primary school, everyone follows their own path, and supervision for them has never been team-based but rather group-based. I never perceived their need for teamwork. Everyone has their own agenda and their own class, and promoting teamwork was not their focus; R14: For example, the key thing that stands out for me is that they often organize supervision as a team, but when you inquire about how they work together and what the team is like, you find out that they are more like separate units, divided by subject. However, that is not quite teamwork in the true sense.*

The analysis of the interviews with supervisors showed that 16 supervisors interviewed during group supervision sessions with teachers encountered teachers who lacked developed skills in working with themselves. Supervisors reported that working with the self is inherent in helping professions. People in these professions undergo courses and training, and working with the inner self is often part of the university curriculum. However, teachers do not have such stepping stones because courses focused on self-development and working with one's own feelings are usually their personal choice and take place on an individual level rather than systemically. *R1: Their self-reflection is lacking; R7: In social services, people are more adept at working with themselves, with their feelings, and let's say personal values, whereas in education the prevailing attitude is still that I am an expert, that the teacher is trained in this and working with oneself as a tool is not common practice, it is not like that; R10: They do not care that much about the courses or training focused*

on soft skills and some kind of support because they feel that they don't benefit from it or they can't do it anymore; R15: They will need to learn that they must take care of themselves not only on a professional level but also on a human level.

Since supervision is completely new to most teachers and they are not familiar with the type of sharing taking place in supervision, the supervisor must talk about this fact to bring it to light and educate teachers in the area of self-development and working with their emotions and needs. Therefore, some supervisors choose to introduce the importance of sharing and its conditions at the beginning of the supervision process. However, this contradicts the principle of not advising or lecturing that they emphasized in other parts of the interview. In school, teachers focus on knowledge, whereas in the field of professional development, they then focus more on didactic practices than on personal development. However, based on the awareness of the benefits of soft skills for teachers and the impact that acquired skills have on students, teachers may be more motivated to develop in this area. This supervision work can also play a crucial role in preventing burnout syndrome in teachers and in helping teachers recognize their current mental state. It can also provide teachers with intervention if needed and refer them to other services that can be used if necessary. By understanding themselves, their needs, emotions, and motivations teachers can become better educators, so working with themselves not only has a positive effect on teachers but also on the children they teach.

The theme of self-work is related to the possibility of having sufficient space and time for personal development. Teachers have numerous courses, training programmes, and other things to attend as part of their education. According to most supervisors (13), teaching is time-consuming. *R8: Time,*

they are just really very busy; R9: They are just very tired. At the same time, however, the dilemma of teachers' working hours was also raised. The fact that some of their working hours and duties extend beyond the school sometimes gives the impression that everything beyond teaching and established duties is encroaching upon teachers' free time. *R15: They already have to participate in a lot of other training courses, both pedagogical and methodological, and supervision is seen as an extra burden; R2: Based on what the teachers say, I get this impression, for example, we have too much to deal with, we are overloaded, tired, exhausted, we have too much training, too much finishing, it's after our teaching hours; R10: They feel there should be some boundaries established, and they don't want to sacrifice any more to the school and they don't want to continue to dedicate more space and time.* So supervision becomes an additional commitment for them and a programme for which extra time needs to be set aside. It would be convenient if supervision could take place during regular working hours, eliminating the need for teachers to allocate extra time for it. Many supervisors keep this in mind and, when arranging supervision with the management, try to negotiate the time for supervision so that it does not add further burden to the teachers.

Supervisors' activities in schools

During the interviews, supervisors talked about the specific activities and strategies they use when approaching supervision in schools. The topics primarily revolved around the introduction of supervision and introducing it to teachers. According to supervisors, their first point of contact is usually the school principal, who not only requests the supervision but also outlines the current situation in the school. How the principal perceives the supervision and his/her attitude towards it is important for the further course of supervision. It impacts

how supervision is introduced to the teaching staff and how it is implemented in the school. Many schools have no experience with supervision and, if they do decide to commission it, it is a completely new concept to them. The supervisors agree that introducing supervision in schools should not be underestimated and should go hand in hand with awareness raising and education. Many supervisors stress the importance of finding out whether or not the school has previous experience with supervision before they enter the school. If the school does not have any experience, the supervisor will offer (or make it a requirement) to conduct a presentation on supervision in the school so that teachers have adequate expectations before the first supervision session takes place. *R1: It is necessary to safely introduce supervision to teachers.*

The communication, both about what supervision entails and during the supervision process, is a crucial part of the supervision itself and has a significant impact on it, both positively and negatively. The approach of individual supervisors is influenced by various factors, including personal, institutional, and also reactive, i.e. how supervisees respond to the supervisor and the supervision itself, and vice versa. The job of the supervisor is to set up and build a trusting environment and space for supervision to take place. Safety was mentioned by supervisors in interviews from various perspectives, including in the context of how the supervisor handles it in supervision and the supervisor's role in implementing it. *R9: But basically, a lot of that communication is about allowing the person to relax in some way, asking them about what they're afraid of, asking them to name any concerns they may have. R14: Establishing a trusting environment in schools differs significantly from the process in social services.*

According to supervisors, in many schools, there is a sense of distance or outright rivalry between teachers, and therefore they perceive the supervisory environment as threatening and opening up to others as hurtful. The supervisor's role is to facilitate openness within the group, which is primarily achieved by creating a confidential space where certain rules apply. The supervisor takes charge of establishing these rules in collaboration with the teachers and this is one of the first activities they undertake. One common rule is that anything said, shared, or discussed in supervision must remain within the group and that individuals are not allowed to share it with those who did not attend the session or with management. If any information needs to be shared outside the supervision group, the form, recipient, and purpose of the communication must be agreed upon. These rules are in place to foster a confidential and personal space where individuals do not have to worry about information being passed on outside the group. Another rule is that individuals are encouraged to speak for themselves, express their feelings, opinions and emotions. However, by expressing them they are not evaluating others. They are simply sharing their own thoughts.

Supervisors' experience

In the interviews, supervisors reported that, just like teachers, they also experience uncertainty, self-doubt, disappointment, frustration, responsibility, and many other emotions that arise during the implementation of supervision, preparation for supervision, and the process itself.

Frustration and the ensuing exhaustion come from the teachers' lack of knowledge of supervision. The introduction of a new tool is always a challenging activity, and if the school is not prepared for it and does not provide adequate conditions for teachers to implement the activity, the process becomes longer, more complicated, and more difficult for the supervisor to communicate. The supervisor does not have adequate conditions for his/her work and is forced to create and communicate them himself/herself. In interviews, supervisors reported that it is often up to them to organize the entire implementation of supervision. Adequate conditions include, for example, conducting supervision during teachers' working hours, ensuring voluntary participation in supervision, providing suitable physical settings (a space large enough to accommodate a group of about 10 people who can remain seated undisturbed, with good ventilation and fresh air), securing funding for the possibility of implementing both group and individual supervision, cooperation between the management and the supervisor (the management should not only come up with the order to implement supervision but also participate in the implementation), etc.

Ensuring these conditions should not be the responsibility of the supervisor, but rather the school management. If these conditions are established before the supervisor's arrival, the actual implementation of supervision becomes less demanding. Otherwise, the supervisor will have to ensure suitable conditions for his/her work and make additional effort to establish them. Supervisors address the issue of lack of knowledge of supervision through the aforementioned introductory seminars or educational sessions. However, they see the difficulty mainly in the fact that bridging this knowledge gap often requires a significant amount of group time, sometimes even several supervision sessions. One supervisor shared an example where the issue of supervision ignorance was addressed with the teachers for one school year, but the principal failed to provide supervision the following year. As a result, the teachers missed out on the opportunity to experience

the benefits of group supervision and how it can enhance their work.

There was strong agreement in the supervisors' statements that introducing supervision in schools is more challenging than introducing supervision in other settings. The difficulty of implementation is reflected in the supervisors' experience – in schools, supervisors need to spend more time and energy on implementing supervision and also feel challenged more often, which they have to address during their supervision sessions. Supervisors reported that more extensive preparedness and achieving a wider range of goals are required of them. It's not just about setting up the supervision itself, but also about communication and openness to collaboration, which is often lacking in schools. In terms of professional satisfaction, supervisors felt the need to monitor the reasonableness of their expectations to avoid disappointment. Having knowledge of the specifics of the school system and the school itself helps them in this regard. It is not possible to apply a one-size-fits-all approach to all schools; each school needs to be considered as a separate system that requires knowledge and understanding. Supervisors emphasized the need for self-reflection, especially to avoid projections and evaluations of 'good schools' and their defence mechanisms. They stressed the desire to be open-minded and not to evaluate or even blame teachers or the school system. Applying these principles means greater demands on working on oneself, attending self-supervision, and working with one's own experience and emotions. This is of course true regardless of the field in which supervision is implemented, but in education, the importance of these professional principles is felt even more strongly by the supervisors interviewed.

Uncertainty, self-doubt, disappointment, and responsibility are also experienced by supervisors. Just like teachers, supervisors

also reflect on these emotions during supervision. According to supervisors, uncertainty is primarily experienced during the initial supervision sessions with the team. This feeling is common among both supervisors who have been in practice for a short time and those who have been in the field of supervision for a longer period of time.

Supervisors primarily associate their disappointment with seeing that supervision is inadequately handled in some schools and with the fact that some schools present supervision as mandatory rather than voluntary to their staff, which goes against one of the fundamental principles of supervision.

Study limitations
One of the main limitations of our study is the small and gender-imbalanced research sample. For the purposes of the research, we conducted interviews with 20 individuals, primarily women. In the context of qualitative research, the selection of informants is always a crucial issue; we selected them based on a list of supervisors from ČIS, and interviews were conducted only with those who responded to the email invitation. Therefore, an even representation of supervisors across the Czech Republic and individual regions was not ensured. Expanding the sample size, including more male supervisors, and increasing regional variability would be desirable. It is likely that male supervisors and supervisors from regions not yet included, where education faces specific challenges, would bring new topics to the analysis.

The chosen interview structure and the conducted qualitative analysis, which reflect the subjectively specific perspectives of the authors, can be considered a potential limitation. These perspectives are legitimate within the qualitative approach, but it can be assumed that expanding the analytical team and potentially including other data

collection methods would lead to the identification of additional topics.

Discussion

The study aimed to investigate how supervisors specifically perceive their work in schools, what factors cause stress or facilitate their work, and how they understand teachers' reluctance or inability to participate in supervision and benefit from it. Based on the interviews with supervisors, it is clear that they view supervision in schools as a unique domain, distinct from other fields in its nature and entry requirements. From their statements, the following specific characteristics of education were identified as factors that supervisors believe influence the progress and effectiveness of supervision:
1) a perceived lack of time,
2) low importance placed on non-specific professional development,
3) an individualistic and isolationist conception of teaching.

5.1 Thematic map – specific characteristics of education
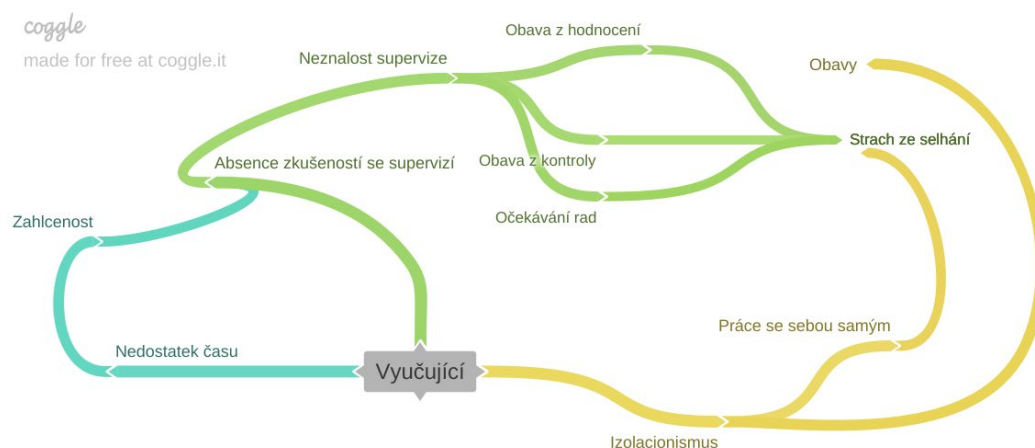
We will now provide a more detailed description of the different factors identified. According to supervisors, both male and female teachers feel under significant time pressure, which increases their work stress. Available studies (e.g. Kohoutek, 2011; Smetáčková, Štech et al., 2020) suggest that the experienced lack of time is due to the expanding work agenda, the need to keep up with new and accelerating trends, as well as the flexibility of job performance in terms of time and space. Indeed, indirect work, such as preparing for lessons, correcting pupils' work, or performing administrative tasks, which teachers do not have to do directly at school (as opposed to teaching and participating in necessary meetings), is often seen as their free time. As a result, according to supervisors, teachers subjectively have less time to dedicate to professional and personal development activities such as supervision. They also resent any new activities that encroach on their "free time" and keep them at school. When teachers do engage in professional development, it usually involves specialized training in their subject areas' knowledge or didactics. This is supported, for example, by the study conducted by Michko (2016), according to which approximately 70% of teachers opt for simpler development activities that do not require collaboration with colleagues (e.g. self-study, one-day training, didactic materials), while only 10% utilize more complex methods like video recording and

analysis, visiting another schools, or participating in supervision.

Related to this is the fact that supervisors report little importance being placed on non-specific professional development in education, the aim of which is not to acquire specific subject-specific and didactic knowledge and skills, but rather to develop more general competencies, including the ability to self-reflect (Farrell & Jacobs, 2016). Additionally, there is often insufficient awareness among the teaching public about what non-specific professional development entails, how it is conducted, and what the benefits of supervision are. As a result, both schools and individual teachers have low motivation to participate in supervision. Supervisors believe that the low importance placed on non-specific professional development may be attributed to a lack of preparation for this area of training and the absence of experience with supervision in higher education.

Another specific characteristic is the individualistic and isolationist setting of teachers' work. Supervisors describe teachers as "separate islands" who do not interact much during teaching or preparation as they are dedicated to their own agendas. This practice is something that everyone is used to and is not challenged and it therefore leads teachers to believe that sharing experiences with colleagues is not important. Supervisors also note that teachers often see themselves as infallible authorities, making it difficult for them to admit their failures. According to Simoncini et al. (2004), such a setting prevents teachers from entering into a dialogue involving active listening and opening themselves up to the cognitive conflict that is a prerequisite for real professional change. Rodger (2002) supports this idea, particularly in relation to the development of self-reflection. The isolationist approach to teaching also has negative consequences

for the amount and effectiveness of communication and collaboration within the teaching staff. Collaboration and communication are not adequately prioritized and developed in mainstream school practice. Consequently, during supervision, some teachers may encounter an environment where communication is open, trusting and non-judgmental for the first time. They must therefore gradually learn this approach and style of communication, which becomes more challenging if the school culture opposes it.

The supervisors agreed that understanding the specifics of education is essential and should be the basis for their work with the teaching staff. It is also important to respect the boundaries within which teachers operate and set reasonable expectations. Automatically applying supervisory experience from other fields where the supervisor supervises is not effective. Likewise, relying solely on personal experience as a former student or parent of a student is insufficient. According to supervisors, having knowledge of the working conditions in education, from which everyday experiences are born, as well as the professional dilemmas and pressures that teachers face as part of their professional identity, helps make supervision in education effective. This is because, for reasons outlined above, teachers often approach supervision without knowledge of the subject matter, with scepticism or mistrust, and with little willingness or ability to open up to supervision immediately. This fragile initial set-up can collapse completely if the supervisor does not choose appropriate procedures when introducing supervision. This is not because he or she is not a good professional, but rather because he or she is not attuned to the specific conditions and needs of the school system. In relation to the role of the supervisor, it is important to note that, similar to the teachers, also supervisors experience

various feelings during supervision that they need to reflect on and process.

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MENTAL HEALTH APPLICATIONS AND THEIR USE BY UNIVERSITY STUDENTS

LENKA PETRŽELKOVÁ, ANNA FROMBERGEROVÁ

Abstract: *This research focuses on the use of mobile apps to promote mental health by university students. The aim of the study is to analyse the difficulties that university students have in accessing these apps, the positive and negative aspects they perceive about the apps and the reasons that lead students to uninstall the app or not to continue using it.*

As a result, the paper analyses the difficulties leading to finding a mental health support app, perceived advantages, disadvantages and reasons for uninstalling apps from the perspective of university students. A functional outcome of this research may be a mapping of selected apps, especially those backed by Czech developers, describing how they work, the area of difficulties they address, as well as information on whether the apps are supported by evidence-based research. Another practically applicable outcome of the work is also recommendations that could be implicated in practice to help improve the services of these applications. These are suggested both by the users of the apps themselves, but also by the author of the study based on data analysis.

Keywords: *mental health, mental health application, university students, web applications, mHealth*

Introduction

As experts, we consistently endeavor to assist clients in managing their initial acute states to facilitate their calmness, grounding, and capacity to address their situation further. There are numerous techniques aimed at calming and coping with crisis states; however, in many instances, clients lack access to a professional who can guide them through challenging, crisis-driven, acute circumstances and demonstrate appropriate techniques.

One of the emerging options to "replace" a professional worker is the proliferation of applications focusing on mental health. In the Czech Republic, mobile applications and websites are in their infancy, yet the COVID-19 pandemic has accelerated the emergence and development of these alternative aids. Currently, in the Czech Republic, there are several widely utilized applications (such as Nepanikař, Kogito, and the digital diary VOS) and websites (such as Terap.io, Opatruj.se) that focus not only on the mentioned prevention but also on calming during acute crises, meditation, and mindfulness.

"According to a survey by the World Health Organization, 29% of the total of 15,000 applications in the field of mobile health (mHealth) are focused on the diagnosis,

treatment, or support of mental health" (Salehi et al., 2019, p. 303). The number of smartphones is constantly increasing, and digital technologies are continuously evolving. With gradual growth and development, these technologies are penetrating into increasingly more areas of our lives. Among the first professionals to strategically utilize mobile technologies in daily practice to enhance the efficiency and quality of services were healthcare providers. Electronic devices for communication, research, and education began to be utilized as early as the 1990s (Luxton et al., 2011). Since the 1990s, these technologies have undergone significant development. The progressive evolution has brought about both quantitative changes (increase in the number of smartphones, increase in the number of applications) and qualitative improvements (new, enhanced applications and systems, targeting diverse areas). One of these new areas is the field of mental health care. As evident from the aforementioned research, mental health is a significant context in which these technologies are employed (Giota & Kleftaras, 2014).

The primary goal of mental health support applications is to promote mental health and well-being, whether it involves promoting a healthy lifestyle and thereby preventing mental health issues, or assisting in the treatment of established mental illnesses. The four main areas targeted by these applications are education, monitoring and assessment, intervention, and social support (Salehi et al., 2019).

In terms of targeting or functionality, applications can be divided into three main areas:

A. Stand-alone measure:
    Within this category, applications are used independently. This means that the application is the sole intervention utilized by the client (i.e., it is not accompanied by any professionals or other care). The advantage of this approach lies in the absolute freedom of the user, allowing for intervention utilization at any time and place, according to one's own schedule. Due to this high flexibility, there is an increased likelihood of user engagement with the application (intervention), as the "low investment" (both in terms of time and finances) may motivate individuals to work on themselves more actively. Moreover, this approach eliminates the issue of a shortage of professionals and their capacities. Another significant advantage, according to the authors, is the fact that certain anonymity and privacy reduce barriers and stigma, which may hinder certain groups of users from seeking a "human" professional. Thanks to all these factors, interventions in the field of mental health can reach a large number of people, which in turn may lead to a reduction in the reluctance to discuss mental health and take care of it. Thus, these factors contribute to a certain level of prevention in the field of mental health.

B. Blended concept:
    This area can be translated as a "combined" or "mixed" approach. As the name suggests, it involves the simultaneous use of an application and a real professional. This concept can be utilized, for example, as a complement between individual sessions or as an extension of the professional's work. The professional can thus use the application as an assistant, such as assigning tasks to the client, monitoring the client's moods, reminding them of basic principles agreed upon, or simply providing support.

C. Stepped-care approaches:
    The so-called stepped-care concept is based on the individual needs of the client. Applications are used based on

the client's state, progress, or regression. The use of applications in this approach may tend to increase. This approach is used, for example, with clients who are poorly motivated and might be deterred by intensive sessions. Conversely, decreasing the use of applications and interventions may be beneficial for clients who have already recovered or resolved their issues, and the mobile application intervention is only "maintenance" (Ebert et al., 2017).

Effectiveness

The increasing number of mobile and web applications, along with a growing user base, has also brought about a pressing issue: ensuring the quality, effectiveness, and expertise of these applications. According to a meta-analysis by Lecomte et al. in 2020, there are between 10,000 to 20,000 mobile applications focused on mental health. However, only 3-4% of them are scientifically supported. Nevertheless, as the authors point out, with the rising number of applications, there is also an increase in the number of studies dedicated to researching the effectiveness of these applications.

Advantages of Mobile and Web Applications

While the effectiveness of interventions within individual applications may vary, mobile and web interventions offer several undeniable advantages. Among these, availability, flexibility, often cost-free access, and anonymity are notable. Mobile applications allow access anytime and almost anywhere (the only limitation may be the lack of data connection, although some applications also offer offline functionality). Users can choose which day and time they will utilize the application's services. They are not tied to scheduling appointments with professionals. The application enables users to flexibly plan individual "sessions" according to their pace. The flexibility and

variability of applications also allow users to explore a vast number of applications with different theoretical backgrounds and techniques. Users are thus able to combine, alternate, and change approaches according to their own needs (Rozental et al., 2014).

Another undeniable advantage is the elimination of any travel to professionals, which can be a barrier to receiving mental health assistance, especially in smaller towns or villages where professionals are scarce and clients often have to travel long distances to larger cities. For some users, these applications may also offer a significant benefit: cost-free access. Although some Czech health insurance companies respond to the increasing demand for psychosocial support by providing financial contributions, this financial support only partially covers the costs. Moreover, as mentioned earlier, there is a shortage of mental health professionals, and even fewer of them work on insurance plans. Therefore, it is not possible to fully meet the demand for these services. Mobile applications can thus be beneficial for clients who need some form of psychological support, face long waiting times for insurance-based professionals, and do not have the financial means to pay for professionals themselves.

Although mental health has been increasingly entering social discourse, we are still not at a stage where seeking psychological assistance is free from various prejudices and stereotypes. For some clients, meeting with a psychologist, psychotherapist, or psychiatrist, although highly necessary, may still be an insurmountable taboo. Mental health issues and considerations of seeking psychological help may be accompanied by fears of ridicule, embarrassment, or condemnation. Therefore, mobile applications can also be seen as a "bridge" between potential clients and professionals. Not only do most applications operate completely anonymously, without

anyone in the user's environment needing to know about their use, but also, due to their availability and number, they can help break down this taboo and bring clients closer to real professionals (Patel et al., 2021).

If we look at the functioning of these applications within the so-called "blended" concept, i.e., the concept of mobile and web applications as a supplement to interventions with real professionals, another undeniable advantage may be the attractiveness of applications, which can help support the client's self-work. They can provide interesting additions to individual sessions, as well as support between them. Thanks to the availability of applications, clients can record their progress between sessions, which can lead to more frequent practice of various tasks or can also be used to measure the effectiveness of interventions (Hanft-Robert et al., 2021).

Giota and Kleftaras (2014) published a comprehensive analysis of the risks, disadvantages, but also ethical limits of using applications in young adults. In a chapter aptly titled "The Power of Mobile Applications: Innovations in Mental Health," they do not forget to mention some clear advantages that these applications offer in the context of use by young adults. The authors state that young people who suffer from mental disorders or are at risk of mental problems often do not seek professional help, despite the effectiveness of professional care. According to them, the reason is the lack of available care, which can be due to both financial reasons and practical reasons - travel distance to professionals, time constraints, but also the already mentioned concerns about labeling and stigma, which may accompany mental health care. They suggest that mHealth is an ideal platform for self-observation, symptom and behavioral pattern recording, based on which applications can provide

personalized feedback, maintain motivation, and provide psychotherapeutic methods. However, their purpose can also be found in effective training and exercise.

Limitations of Mobile and Web Applications
Despite the advantages mentioned, there are also many limitations and risks associated with mobile and web applications in mental health care. Firstly, we can mention the risks and limitations arising from the technology itself as a medium. Technological devices are limited by their technological parameters, such as problems with the necessity of internet connection and its stable connection, battery limitations, etc. Another significant issue is the storage and retention of users' personal data. Quality mHealth systems must be very comprehensive and holistic in their approach to the user. However, this means that they must collect as much data about the user as possible. This includes not only personal data such as name, email, or address but also sensitive personal data such as weight, height, daily routine, diet composition, sleep information, movement, social contacts, pregnancy, menstrual cycle, and so on. While higher-quality applications have various security systems to protect against data theft, no system is foolproof. Additionally, we must consider the fact that we do not always protect our mobile devices and other equipment as much as we would protect other personal belongings - we may forget our devices somewhere or they may be stolen. (Giota & Kleftaras, 2014)

Another problem may be the fact that there are already a very large number of mHealth applications, and users, as well as professionals, may get lost in which of these applications can be considered "quality." Low-cost applications may be supported by third parties who may use users' personal data - it is therefore always essential to thoroughly read the terms of the application. With these applications, there may also be

a problem with frequent unwanted advertisements, which can disrupt the treatment process for users and discourage many of them. (Giota & Kleftaras, 2014)

Another limitation of these applications may also be that we do not always know who is behind the application. Often, applications are created and published by people who do not have any professional qualifications. The methods and forms of work may not be verified and supported by evidence-based evidence, which in the best case may lead only to the inefficiency of interventions, and in the worst case, incorrectly chosen interventions or information provided may lead to harm to the user. Although, as mentioned earlier, comprehensive studies confirming the effectiveness of these applications are still lacking, mHealth applications and their methods and recommendations can affect a wide range of areas - work and study life, interpersonal relationships, self-esteem, etc. It is therefore always necessary to work only with verified and professional applications that can provide relevant and verified forms of help. Even if the application is verified by many studies, human contact is irreplaceable for some clients. Mobile and web applications may be entirely inappropriate for certain user groups because they cannot fully replace human relationships, contact with another person, empathetic understanding, and individualized care targeted at the specific individual.

Another risk can be seen in the limitations of applications for "older" generations, both among professionals and clients. Some of these clients and professionals may feel intimidated and threatened by these applications. This is confirmed by the research of Hanft-Robert et al. (2021). In their study, they focused on analyzing the concerns of psychiatrists regarding the use of mobile and web applications supporting mental health. From the research, which

also included psychiatrists from the Czech Republic, several limitations were identified that psychiatrists fear when working with these applications:

- Patients will be their own doctors - concerns stemming from the fact that the patient or client cannot objectively decide on important health procedures, medication, or the appropriateness of significant interventions.
- The effectiveness of the application also depends, among other things, on the established diagnosis – the established diagnosis affects the effectiveness of the application's intervention (so higher efficiency can be expected in clients with anxieties, who may be highly motivated to use the application regularly, lower, on the contrary, in clients with depression or severe psychotic disorders).
- Low individualization of treatment or responses - here, professionals point out that the intervention or treatment of each client is always determined based on the client's individual needs, which may change during the process, and the professional must respond to them flexibly.
- Fear of replacement - fear of losing the purpose of one's own actions and being replaced by technology.
- Lack of experience with mobile applications – lack of interest, concerns about applications and mobile devices, leaving these technologies to the "younger generation," sticking to one's own procedures.

Apart from mapping these risks, which are accentuated by professionals themselves, the authors of the study also mention in the discussion that fears or concerns about applications were expressed more by professionals who did not use applications in their practice, were not familiar with them, and perceived applications more as a potential threat that could replace them

rather than as useful support for their work. Education of professionals in the field of mobile technologies could help reduce concerns and fear and motivate more frequent use of these applications. This education and "redefinition" of the role of professionals in the field of mental health care are seen as one of the significant and important tasks in the new era of eHealth.

Other authors suggest that mHealth applications cannot be considered a substitute for face-to-face therapies and consultations. However, they see their future as a supportive tool for these personal meetings. According to them, applications can support personal therapies and consultations by increasing the efficiency of sessions and maintaining the motivation of clients between personal meetings with professionals. Finally, they also recommend avenues for research in this area – the future and necessity of research and practice are primarily seen in the certification of mHealth applications to guarantee their quality and professionalism, in creating educational opportunities for professionals to familiarize themselves with applications and introduce them into their practice, and also appealing to professionals, especially psychologists, not to be too afraid of the increasing awareness and popularity of these applications but rather to turn to technology as helpers and help improve them through research. (Giota & Kleftaras, 2014)

Introduction of Selected Mobile Applications Supporting Mental Health

Calmio

Calmio is the first Czech meditation application. The idea behind it was conceived by Tomáš Volejníček, who was inspired by foreign meditation applications, especially Headspace and Calm, in the creation of a Czech meditation application. While both of these applications are accessible to Czech users, the author was aware of both the limitations of the language barrier (both applications are only available in English) and the different problems addressed by Czech and American society. While foreign applications focus more on the theme of performance, according to the developers of the application, Czech society is mainly troubled by reduced self-esteem, poor mood, and anxiety. The development of the application also involved psychologist and psychotherapist Markéta Jankovská and Martin Kundera, who is responsible for marketing strategies and product development. (Brejčák, 2019; Nosková, 2020)

The Calmio application lists several positive effects of regular use. These include improved sleep quality, stress relief, and strengthening of mental health. The application can be downloaded on both Android and iOS platforms. After downloading, the application requires login and then provides several essential steps for proper meditation (feeling comfortable, not forcing oneself into a position, etc.). As a meditation guide, the user can choose one of four offered voices, and then the application allows access to individual lessons. The lessons consist of three basic courses, with additional courses focused on specific themes (calm sleep, calming the mind, better concentration, kindness, fear, anger, restlessness, etc.). Lessons are unlocked gradually. Within the application, users can also access educational videos. The philosophy of the entire application is for the user to find a few minutes for themselves every day, learn to identify thoughts racing through their mind, and be able to control them when experiencing various situations. (Calmio, 2022; Mertová, 2021)

Endel

The Endel application is the result of work by the eponymous Berlin-based company of developers and artists. The application works with music, specifically personalized

melodies and compositions, which, using artificial intelligence, analyze the circadian rhythms of individual users and based on this information offer music suitable directly for the specific user. Due to the company's collaboration with Apple and their smartwatches, the artificial intelligence in the background of the application can track data, based on which it can subsequently offer the ideal personalized music playlist to the user. The monitored data that the application subsequently analyzes include, for example, heart rate throughout the day or information about the precise location of the user to determine the level of light, weather, and thus the physical activity of the users. By synthesizing these individual pieces of data, the application can establish the circadian rhythms of users, which the developers consider the basis of both mental and physical health. The application can analyze, adapt to, and gradually improve people's rhythms. The application includes several modules, including relaxation, concentration, sleep, and activity. (Endel, 2022; Hayes, 2020)

The developers of the application strive to reflect current scientific knowledge, and they have based their application on evidence-based findings. The positive influence of music on physical and psychological health has been demonstrated in their study, for example, by Knight and Rickard (2001), who examined the effect of music on the level of stress in intact men and women. They demonstrated that the effects of music reduce the subjective experience of anxiety, heart rate, and systolic blood pressure. Haruvi et al. (2022) went further in their study of the positive effects of music, examining its influence on a person's level of concentration. In their study, they divided respondents into three groups and assigned several tasks on a tablet to each of them. One group performed tasks without musical accompaniment, the second group with non-personalized music (i.e., predefined

songs from the Spotify platform), and the third group with personalized music (based on user data such as heart rate, GPS location, time of day, etc.). The authors demonstrated that the level of concentration was higher in subjects who listened to music. However, the highest level of concentration was demonstrated in respondents who listened to personalized music.

The advantages of the Endel application include its scientific background, while its disadvantages include the absence of the Czech language and the need for a subscription.

Fabulous
The Fabulous application was founded by a team from the Laboratory of Behavioral Economics at Duke University, led by Dan Ariely. As the name of the laboratory suggests, the foundation of the application is based on behavioral science. The core of the application revolves around the establishment of simple habits that gradually lead users towards a healthier lifestyle.

The application leverages fundamental insights from behavioral science, such as the use of rewards, breaking down long-term and complex goals into smaller units, and an attractive graphical interface reminiscent of a game or digital to-do list, where users can track their progress. The application begins motivating users immediately upon opening. It appreciates users for downloading the application and generates a letter addressed to the user from their future, healthier "self". In the initial days, the application focuses on the start of each day – users are prompted to drink a glass of water every morning, followed by a task to have a quality breakfast after three days. Tasks unfold gradually, and one of the driving motivational forces for users to complete tasks is curiosity about what other tasks the

application has prepared. The application supports the transformation of habits into daily rituals through simple rewards. For instance, the morning routine (drinking water, morning meditation, or walk) is subsequently rewarded with the opportunity to dance to a favorite song. After completing several tasks, users are rewarded with a certificate. The application offers numerous "small" rewards to reinforce desirable changes in user behavior.

The application offers several modules focusing on various aspects such as exercise, healthy eating, focused work, quality sleep, self-confidence, and stoic thinking. It provides users with a clear structure for each day but also allows them to create their own routines. In addition to daily tasks, the application offers weekly shared challenges available online for all community members. These challenges include, for example, a week without smoking, without social media, or monthly challenges for healthy eating. The "Make Me Fabulous" section offers 13 different thematic areas containing a variety of activities to try based on the user's specified time availability. These areas include activities such as breathwork, yoga, meditation, or sitting and contemplating. The developers are continuously working on the application, adding new modules and expanding it with new features, such as coaching libraries where users can find a plethora of validated studies and articles, the option to sit with a real coach, or share their progress within the community of other users.

A critical evaluation of the Fabulous application was conducted by medical experts on the Healthline medical website. A team of experts consisting of clinical psychologists, psychiatrists, social workers, and therapists highlighted several key advantages and disadvantages of the Fabulous application. Among the advantages

are its evidence-based background supported by the latest scientific studies, the application environment, which strongly resembles a gaming environment and is thus highly motivating and enjoyable for users, highly refined application design, graphics, and ease of use, a large number of exercises and meditations, and information on the duration of individual tasks. Experts recommend the application primarily for people with chronic fatigue, those looking to improve their sleep, increase their energy levels during the day, or enhance their concentration. The application is also recommended for people with ADHD (Attention Deficit Hyperactivity Disorders) or those suffering from anxiety. Among the main disadvantages is the almost necessary requirement for the paid version of the application (although the application can be used without a subscription, in this case, it offers many fewer options, sections, and exercises) and the inability to set goals other than daily habits. Experts also criticized the application notifications, which are subtle and users may easily overlook or ignore. Furthermore, the experts specifically focused on one of the sections related to healthy eating and weight loss, noting that weight loss may not be the goal of every user, and this section could be dangerous for some users. The application is available in several European languages, but Czech is missing from the language options. (Balagam, 2022)

Kogito
The relatively new application offered in the Czech environment is called Kogito. Its name is derived from the Latin word "cogito," which means to think. Thus, it is evident from the name that the application primarily deals with negative thoughts, aiming to identify and subsequently work with them. The theoretical basis of the application is cognitive-behavioral therapy. The application addresses psychosocial problems faced by

women related to motherhood. Therefore, it is targeted at expectant mothers or women after childbirth who experience negative thoughts associated with motherhood, helping to reduce stress and improve mood. (Kogito, 2022)

The application is supported by multidisciplinary collaboration. The idea to create an innovative application focusing on expectant mothers and women after childbirth was initiated by psychiatrist Antonín Šebela, who works at the National Institute of Mental Health (NIMH). To develop the content itself, Šebela enlisted psychiatrists and psychotherapists from NIMH. Additionally, to better understand the specific problems women face during childbirth and the postpartum period, experts and peer consultants from the non-profit organization "Úsměv mámy" (Mother's Smile), which focuses on the psychological issues of women during pregnancy and childbirth, also contributed to the application's development. (Úsměv mámy, 2020; Doležalová, 2021)

The application comprises two sections – a "diagnostic" and an intervention section. Immediately after downloading the application, the user is prompted to complete two questionnaires (referred to in the application as "Mood" and "Anxiety") along with some basic demographic information about the user. Regarding the questionnaires, they consist of two scales, the Edinburgh Postnatal Depression Scale and the Perinatal Anxiety Screening Scale. Upon completion, both depressive symptoms and anxiety symptoms are evaluated, with depressive symptoms given greater weight. The intervention part consists of relaxation exercises, elements of psychoeducational activities, meditation, mindfulness training, and elements of peer support (shared stories by women who have experienced mental health problems during pregnancy and motherhood). Similar to previous

applications, the user progresses through five levels that gradually unlock over time. In addition to the intervention options offered in the application, it also provides opportunities for monitoring one's own emotions, recording personal thoughts, and planning and completing anxiety and depression cycles. According to the authors, the application has a preventive nature - the user monitors the development of their mood over a certain period, observes their progress, and with appropriate interventions provided by the application, it can help prevent the development of more serious mental difficulties. (Šebela a kol., 2021; Doležalová, 2021)

The developers and authors of this application aimed to create an accessible and low-threshold form of psychosocial support for women during childbirth and motherhood, as according to the application's author, Šebela, the care for this client group in the Czech Republic is not systematized. They also stated that a large number of women experience psychosocial problems during pregnancy and after childbirth, which were exacerbated during the pandemic period. However, only a minimum of them seek professional help. Among the advantages of the application is undoubtedly the fact that it is offered in Czech and is available for free - thus accessible to any user who has a smartphone. The application can also assess the risk of depression and anxiety symptoms in the user, and if the scale values are too high, indicating a risk, it recommends seeking professional help from a psychologist, psychiatrist, or psychotherapist, and it also provides specific steps for arranging this assistance to facilitate it for the user. One disadvantage could be considered its very narrow user focus. However, the developers are currently working on expanding cognitive-behavioral techniques to address

other issues (such as sleep problems). (Doležalová, 2021)

My Possible Self

The journey of the My Possible Self application began in 2009. Its founder, Joanne Wilkinson, decided to create the project after her own experiences with challenging adolescence, aiming to support well-being and emotional health for the general public. In 2016, with the help of her two daughters, she implemented this project into a mobile application. Shortly thereafter, experts from Priory Health Care took notice of this application. Priory Health Care is one of the leading independent healthcare providers in the United Kingdom, focusing primarily on well-being and mental health. With the support of this company, the application can be classified among those supported by current research. (Evidence-based Application). (My Possible Self, 2022; Priory Health Experts, 2022)

Like many of the aforementioned applications, the My Possible Self application primarily draws from techniques and theories of cognitive behavioral therapy. It focuses on breaking down large problems into smaller, manageable parts. Specifically, the application works with individual problems on five levels – situations, thoughts, emotions, physical sensations, and behaviors. By recording and subsequently analyzing these factors, it aims to identify what influences the moods of users, identifies negative patterns in which users persist, and seeks to gradually transform them into positive ones. Within the application, users are also offered the option to complete an initial questionnaire, which can help them identify areas they want to focus on. The application is particularly suitable for difficulties caused by anxiety, depression, sleep problems, or excessive stress. (My Possible Self, 2022)

In addition to individual use, the My Possible Self application also offers the possibility of use in the workplace. It provides the option to monitor various components of employee well-being, analyze the resulting data, and offer suggestions for improving the work environment. With further development and collaboration with other organizations, the My Possible Self application has also been successfully implemented in the healthcare sector. In collaboration with another monitoring company (Inhealthcare), the application offers assistance in monitoring individual patients and selecting subsequent interventions. These interventions are part of a larger project called IAPT (Improving Access to Psychological Therapies), which focuses on implementing evidence-based programs and interventions for hospitalized patients. The philosophy of this program assumes that appropriately chosen interventions will help patients return to their normal lives, including the work process, more quickly, resulting in financial gains. (My Possible Self, 2022; Wakefield et al., 2021)

Upon opening the application, the user is greeted by a friendly and well-designed graphical interface with a guide named Bloopy, who accompanies the user throughout the process. At the same time, the user has the option to immediately explore the offered sections. These include meditation, primarily used for calming purposes, mindfulness techniques, which serve to improve mood, relaxation, and sleep quality, as well as mood tracking and reframing negative thoughts. What sets the My Possible Self application apart is the inclusion of Mood Tags, which are related to monitoring one's own moods. These tags not only track the user's mood but also analyze the data and offer the user a range of possibilities regarding who, what, when, and how might influence their mood. Additionally, the application features Insights, which serve as a form of self-awareness,

monitoring of one's own progress, as well as motivational messages and reminders. (My Possible Self, 2022)

The application is not available in the Czech language, so Czech users may encounter issues due to the language barrier. The application offers a paid premium version; however, users can also utilize the basic version, which is free. One of the advantages of the application is undoubtedly its evidence-based background and multidisciplinary collaboration involving several organizations and experts. The application also introduces several new features and expands certain sections—it does not merely stop at monitoring the user's mood but also focuses on analyzing them. With guiding questions such as "Who are you with right now?", "How do you feel at the moment?", "Where are you right now?", and "What are you currently doing?", the application offers the opportunity for self-reflection on one's feelings, identification of personal resources, and elimination of negative situations. (My Possible Self, 2022)

Nepanikař

The application "Nepanikař" is a project initiated by three students from the Brno University of Technology: Veronika Kamenská, Aleš Řezáč, and Tomáš Chlubna. The idea behind creating the application, which assists in acute psychologically demanding situations, stems from the personal experience of the author with mental health challenges. During the development of the application, the authors collaborated with various experts, including psychiatrists, psychologists (primarily from hospitals in Brno and Břeclav), as well as other specialists from the private sector. They also partnered with the non-profit organization "Nevypusť duši," which focuses on mental health and well-being, primarily among students but also serves the broader public. However, the authors did not overlook the importance of peer

support during the development of the application, so they also involved individuals with mental health conditions in the process. (Daňková, 2019; Nevypusť duši, 2022)

The application "Nepanikař" provides first aid in more acute psychological states, such as panic attacks, acute anxiety states, depressive symptoms, or suicidal thoughts. The application consists of seven modules (Depression, Anxiety/Panic, I Want to Hurt Myself, Suicidal Thoughts, Eating Disorders, My Records, and Help Contacts). Each module contains several subsections. In the Depression module, users can record their resources ("What Can Help Me") to turn to in times of difficulty, track their achievements, pleasures, or plan activities. In the Anxiety module, users will find several useful activities or games to use during acute panic attacks or anxiety episodes (counting, balloon play, seesaw game, relaxation, etc.). Additionally, this module offers other useful tips for dealing with anxiety states (hugging a loved one, listening to music, taking a walk outdoors). Practical tips and several possible activities are also available in the I Want to Hurt Myself module. Here, the application offers several proven tips for coping with the urge to self-harm – using ice cubes, drawing with a red pen, hitting a pillow, writing to a loved one. Users can also record methods that have worked for them and to which they can return. The module also includes a section called "How Long I Can Handle It," where users can track their progress, i.e., how long they have managed to refrain from self-harm. Similarly, the Suicidal Thoughts module follows a similar principle but with slightly different content focus. Here, users will find practical tips, reasons not to harm themselves, or breathing exercises. A relatively new section, missing in the original version of the application, is the Eating Disorders module. Here, users will find tips for specific situations related to eating disorders (guilt after eating, failure,

urge to exercise/vomit, body image, etc.). Various tasks are also available to users, such as creating a list of favorite foods, things we like about ourselves, or various challenges and motivational quotes. A practical part of this module includes recipe samples categorized by time of day and important contacts for professional help. The My Records module is primarily for self-reflection and user recordings. Here, users can record their moods, sleep information, food records, or any other thoughts that come to mind. The last, but very important, module is the Help Contacts module. In this module, the application offers a comprehensive and clear menu of professional help, divided by type of assistance (crisis centers, helplines, university counseling centers, online therapies, etc.). Users can filter these forms of assistance by selected region. (Moresová, 2019; Nepanikař, 2022)

The application is provided free of charge and is available in ten world languages. It is the first application offering initial psychological assistance also available in the Czech language. This general accessibility, supported by the Czech language, free availability, and the possibility of using the application offline, are significant advantages of this application. Experts appreciate the innovation, professional background, accessibility, and references to further professional assistance in the application. However, some warn about the inability to determine the effectiveness of this type of application and the possibility that the application may not be suitable for some users, even harmful to some. There is also a danger of confusing the application with professional help. Developers of the application strive to prevent these misconceptions by stating on their websites that the application in no way replaces professional psychological or psychiatric assistance. (Nepanikař, 2022; Haitl, 2019)

VOS

The VOS application is the result of the work of Jiří Diblík and Ondřej Kopecký, developers from the Qusion studio. Primarily, the application focuses on well-being; however, it also offers assistance with subjectively experienced stress, crisis situations, symptoms of anxiety, or depression. The application provides an individualized path to each user's goals. Immediately after downloading the application, the user is prompted to complete a short questionnaire in which the user selects the areas they primarily want to work on (productivity, improving sleep, eating healthier, having healthier relationships, better physical fitness, etc.). Based on the answers in the questionnaire, the application offers a satisfaction graph and an area it recommends focusing on. Individual goals can be changed during the process. The application then asks for several basic pieces of information, such as the user's age, gender, or diagnosed condition. (VOS 2022; Šlechta, 2022)

Similar to the Endel application, the VOS application can be integrated with other smart devices (smartwatches or other applications on the phone), thus improving the analysis of factors that may influence the user's well-being (weather, time spent on social media, physical activity, etc.). Through specific questioning, the application not only analyzes the user's mood but also offers possible explanations for what may affect the user's mood and how to prevent negative feelings. Therefore, the developers attempted to integrate artificial intelligence, machine learning, the technical aspects of smart mobile devices, as well as the latest findings from psychology, supported primarily by experts from Oxford and Palacký University in Olomouc. (Vítová, 2021; Brejčák, 2020)

The application's standout feature is its highly polished graphical interface. Users

are presented with several daily tasks and challenges to complete. These include daily mood tracking, simple tasks focused on the primary goal (for example, if the goal is to reduce anxiety and stress levels, the app assigns tasks aimed at achieving this goal, such as going for a walk). Task completion is complemented by a digital diary that users can keep and supplement with photos, videos, or various audio recordings. The application also includes a module called "Personality Tests," where users have access to various questionnaire methods to fill out (such as the General Anxiety Disorder-7, Satisfaction with Life Scale). Furthermore, the application offers the option to chat with well-being and mental health experts and provides contacts for crisis assistance if needed. (VOS, 2022)

One of the sections offered by the application is called guided journaling. The application presents users with a specific question every day, to which the user responds (for example, "Is there something you would like to change about your life right now?" or "What is your biggest wish at the moment?" or "How do you spend time with your loved ones?" etc.). Importantly, the questions are repeated after a year, allowing users to see their personal development. The advantages of guided journaling techniques in students were explored by Joanna Dunlap in her article. (2006). She states that guided journaling helps students in reflecting on and articulating their own thoughts and problem-solving, supports cognitive and metacognitive skills, and helps identify and subsequently analyze processes in problem-solving.

In summary, the strengths of this Czech application undoubtedly include its appealing graphical interface, integration with various aspects of users' lives, the availability of a free version, evidence-based backgrounds of individual techniques, and the innovative technique of guided journaling. Given the application's strong emphasis on professional backing and citation of knowledge sources, it is essential to acknowledge the danger that the application could be considered a sufficient mental health expert, potentially giving lay users the impression that it could replace specialists in certain aspects. Ethical concerns could also arise regarding the methods provided in the application, as there is no information about who evaluates and interprets the questionnaire methods.

Wysa

Wysa is an application that combines artificial intelligence with real mental health professionals. The application is operated by an intelligent chatbot named Wysa, represented as a penguin. All interventions offered by the application are delivered in the form of chats (conversations) with Wysa. Like most applications, the theoretical foundation of the application is based on cognitive-behavioral principles. Based on the user's established goals, the application offers various techniques in individual "packs" based on cognitive-behavioral mechanisms, but also incorporates elements of dialectical behavioral therapy, mindfulness, yoga, and meditation. Specific goals vary depending on the user's focus, but generally, Wysa aims to identify current feelings and moods throughout the day and raise awareness of how these feelings affect our mental health. Immediately upon launching and welcoming the application, the user is prompted to select primary areas of focus. Topics offered include those common to previous applications (stress, sleep, motivation, anxiety, depression, relationships), as well as more specific topics (pregnancy, exam stress, loneliness, trauma, LGBTQ+ issues). Since Wysa strives to create a highly personalized and individualized environment, it further inquires about the preferred mode of guidance, whether "guided assistance" or

"self-guidance." Wysa is particularly suitable for issues related to anxiety, depression, stress, mood fluctuations, but also assists with building emotional resilience. However, it emphasizes that although psychologists and other mental health professionals contributed to its development, it does not replace face-to-face sessions with experts. In cases of serious difficulties (suicidal tendencies, self-harm, severe mental conditions), seeking professional help is necessary. (Wysa, 2022)

Wysa is among the applications with a strong theoretical and research foundation. Not only does it provide information on evidence-based support on its website, but it also offers direct links to specific studies. Utilizing the latest findings from current studies for specific interventions, Wysa provides important results from individual studies in bullet points for better user orientation during each intervention. However, if users are interested, they can directly access the entire cited study from the application. The application is also supported by the Organization for the Review of Care and Health Apps (ORCHA), which evaluates digital health apps, creating a safe environment in the field of health and digital technologies. (Wysa, 2022; Orcha, 2020) The effectiveness of the Wysa application in users with depressive symptoms was examined in a study by Inkster et al. (2018), who confirmed improvements in mood among users who used the application regularly and more frequently (referred to as "high users"). Beatty et al. investigated the therapeutic alliance between the Wysa chatbot and users. (2022). he authors conducted both quantitative and qualitative analyses, which confirmed that the strength of the therapeutic alliance with the chatbot increased over time. The results even showed comparability with the development of alliance with a real therapist.

As it is evident, the strength of the Wysa application lies primarily in its robust theoretical foundation, supported by numerous studies. The application is also highly user-friendly, with easy navigability. Individual exercises last from five to ten minutes, requiring only a minimal time commitment from the user. An advantage of the application is its division of challenges into more specific areas; for instance, if a user experiences stress, the application offers tailored interventions, addressing work-related stress, stress during pregnancy, or exam-related stress. Another benefit is the complete anonymity of the user. Unlike other applications, users do not need to register within the application, providing neither their name, email, nor any additional information, except for a chosen nickname for addressing purposes within the application. Furthermore, the application offers the option to schedule a real session with a coach or therapist. However, some authors in this section (Bell & Westphalen, 2022) may point out terminological issues. The application states that it offers therapies, but according to experts, it is more akin to coaching. The application also offers certified therapists, but they originate from India, where they reside, and according to current American legislation, these therapists cannot provide live therapy sessions; they are therefore limited to written (chat) communication. The application can be used in a free, basic version; however, the offering of techniques and interventions is very limited. For some users, the format in which the application is conducted (i.e., through chat) may also be inappropriate and even frustrating. Additionally, the application is not yet available in the Czech language. (Wysa, 2022; Bell & Westphalen, 2022)

Ethical aspects of mobile and web applications
As the field of mHealth in the Czech Republic is still developing and can be said

to be in its infancy, comprehensive legislative norms that should accompany this area are still lacking. All the limitations mentioned above can therefore be considered more as ethical issues or principles that all participants in the development of mHealth should reflect on and adhere to. But what exactly can we imagine under these ethical principles?

"Ethics calls on us to make personal, responsible decisions about what is right or best at any given moment. The law requires us to be aware of what behavior legislators or law enforcement agencies would expect in a given situation." (Lindsay, 2010, s.40) In helping professions, ethics are an integral part of the work of all professionals, and ethical principles affect their daily practice. It is therefore not surprising that ethical principles must necessarily accompany the entire field of mHealth, possibly even more significantly than in the case of personally provided interventions, given the inadequacy of laws.

Given the necessity of respecting ethical principles in interventions provided by mobile and web applications supporting mental health, it is certainly useful in this study to mention some ethical issues that may arise in connection with these applications. I will attempt to accentuate these ethical problems or dilemmas with the help of the Ethical Meta-Code of the European Federation of Psychologists' Associations, which comprehensively summarizes the necessary ethical principles that accompany helping professions. The Ethical Meta-Code, issued in 2005, emphasizes four fundamental principles that professionals in the field of mental health, especially psychologists, should adhere to. These principles include respect, competence, responsibility, and integrity. For the purposes of this study, I will select only the subpoints of each principle that may be most

problematic in the context of mHealth and applications. (Lindsay, 2010)

As the first principle, the Ethical Meta-Code introduces the principle of respect. In general, this involves a general respect for all stakeholders in helping practice – clients, their families, other professionals, the broader psychological community, etc. However, according to the meta-code, the principle of respect also relates to two very important areas: privacy and confidentiality of information, and informed consent. We have already discussed the issue of privacy and confidentiality of information. Informed consent concerns the client's right to all information about the services provided, informing them about all risks and potential benefits, the client's right to interrupt or terminate the process at any time, and their right to make informed decisions. From an ethical perspective, we may therefore ask – are applications sufficiently transparent in this regard? Do they provide comprehensive information about the possible risks of interventions? Are these pieces of information adequately emphasized throughout the process? Some applications attempt to provide information about their functioning, possible risks, and limitations of interventions. Similarly, some have built-in mechanisms capable of detecting the need to "transfer" the user to a real professional. However, problems may arise with unverified applications lacking such mechanisms or adequately informing users about potential risks or limitations, which may appear as "omnipotent" and fully replacing the services of "live" professionals.

Respecting boundaries and their observance relates to the second principle, namely the principle of competence. According to the meta-code, the principle of competence emphasizes the necessity of knowing one's own boundaries, the ability to respect these boundaries, and, in case of exceeding their limits, the ability to recommend another

professional or alternative approaches to the client. Here, we touch upon a similar principle as in the previous paragraph. Are applications capable of this "awareness"? Can they accurately assess the risks for individual users? However, the principle of competence can also be viewed from the perspective of application developers. These developers should respect their competencies in creating individual applications. They should be educated in technological principles, but they should also be experts in mental health, as content is arguably more important than form for the security of applications. This is primarily because mental health is a fragile area, and in case of problems and crises, users need to receive expert information and interventions that can help them. Otherwise, these unprofessional advice and instructions may lead to harm to the client. However, this principle also touches on the area of diagnostics. Since some applications provide certain diagnostic tools (primarily questionnaires), it is important to mention this area as well. Diagnosis is a difficult area of psychology due to the diversity of clients and their needs, the obsolescence of tools, difficulties in standardization, and communication of results, re-diagnosis, etc. These areas are very challenging for all professionals in the field of mental health. However, all these areas and related problems can be further multiplied within applications. Are applications capable of diagnostics with all its difficulties? Thorough diagnostics are necessary for determining effective interventions. However, within applications, could it rather cause harm?

No less important is the principle of responsibility. The professional bears responsibility for their professional conduct. But who is responsible for the interventions provided by applications? Is it the client themselves? Is it the professional recommending the application? Or is it the author of the application? If it is a scientifically verified application that clearly states its authors, is based on scientific research, and alerts users to their possible risks, we can say that such an application maximally strives to fulfill the principle of responsibility. Unfortunately, in a vast number of applications, we also find those that do not provide any such information, and it is not clear who is behind the application. In these cases, complying with or even enforcing responsibility is very difficult. Therefore, professionals should, within the principle of responsibility, reflect on and recommend only scientifically verified applications that strive to fulfill this principle. These "quality" applications also adhere to other principles listed under the principle of responsibility – continuity of care and indirectly maintaining the good name of the profession (by providing effective interventions). Applications without a scientific background may violate the principle of not damaging the good name of the profession by providing unverified and often ineffective interventions.

The principle of integrity is related to the aforementioned principles. According to the meta-code, it involves maintaining one's own professional integrity, honesty, fairness, respect, and transparency. However, it also concerns the principles of honesty, accuracy, straightforwardness, and openness. Applications that seek to respect ethical principles should contain these characteristics. Clarity in providing information, the aforementioned transparent and accurate presentation of limitations and constraints, information about the background of applications, their developers, etc.

Given the nature of applications supporting mental health, it is necessary to respect ethical principles, and application developers should take these principles into account and constantly strive to maximize their fulfillment. In the aforementioned meta-code, as well as in other codes, we find

a principle that concerns one's own development, accentuating current knowledge and methods in one's own practice. The areas of eHealth and mHealth are constantly evolving and are reaching into more and more areas of human life.

Research Goals and Research Questions

Demand for psychological, psychotherapeutic, and psychiatric services in the Czech Republic is continually increasing, and mobile and web applications supporting mental health appear to be one of the possible alternatives to psychological or psychotherapeutic assistance.

One of the goals of this research is therefore to determine what kind of difficulties lead students to seek services from mobile applications supporting mental health.

Another goal is to identify and analyze the positives, benefits, and advantages that students perceive in these applications.

Given the positives, another goal is, conversely, to determine the generally perceived negatives of mental health support applications.

Finally, the last goal is to identify specific deterrent factors perceived by users that lead them to uninstall the application or stop using it.

Based on these goals, several research questions have been formulated:
- For what difficulties do college students turn to applications?
- What positives do students perceive in mental health support applications?
- What negatives do students perceive in mental health support applications?
- What are the reasons that lead students to uninstall applications?

Methodology

Within this study, a questionnaire was administered, which was analyzed using descriptive statistics. This helped not only to obtain basic information about the research sample but also to gather basic data about the respondents.

The questionnaire used in this study was created by the author. Before the actual data collection, thorough research was conducted, primarily focusing on foreign literature, aimed at identifying current research areas and thus selecting suitable questions for the questionnaire and subsequent interview part of the study. The questionnaire was introduced. It included information about the study, the focus on mobile applications supporting mental health, specifically on their utilization by university students, which this questionnaire targets, anonymity od data processing. The questionnaire consists of 20 questions. Participant can terminate the completion at any time.

The questionnaire was created using Google Forms and then shared in various social media groups (for more information on the research process, see below). Data collection thus took place online. The questionnaire was designed to obtain basic data about respondents and their use of mobile and web applications supporting mental health. It combined closed and open-ended questions. The first part of the questions primarily concerned basic information about the respondents (gender, age, university, field of study, year of study, etc.). Subsequent questions focused on the applications themselves (which applications students had heard of, whether they had any applications downloaded, how often they used them, what advantages and disadvantages they saw in the applications, etc.). After the data collection was completed, the data were exported and cleaned, with an emphasis on removing incomplete and

missing records. The exported data were processed using statistical analyses in the software "Jamovi." Descriptive analysis was conducted. For open-ended questions regarding reasons for uninstalling, primary difficulties leading to application deletion, and perceived advantages and disadvantages of applications, a brief summary of the responses was provided, categorizing them into sub-categories (e.g., financial reasons, technological aspects, unfriendly user interface, etc.). This categorization helped cover all respondents' answers in a concise and clear format. The sorting was performed using the pencil-and-paper method.

Research process

The research process began with a pilot study conducted in November and December 2022, involving the distribution of the questionnaire to family, friends, acquaintances, as well as fellow students and doctoral students at the Department of Psychology. The pilot study aimed primarily to check whether the questionnaire lacked any important areas or questions, whether all questions were sufficiently understandable for potential respondents, and whether there were any errors in the questionnaire. A total of 23 respondents participated in the pilot study. Based on several suggestions, minor adjustments were made to the questionnaire's wording (e.g., eliminating repeated words in responses) and some questions were added (e.g., a question regarding the frequency of app usage).

After the pilot study, the actual data collection took place from January 2023 to March 2023. Data collection occurred online, primarily by directly approaching students from universities across the Czech Republic and distributing the questionnaire among classmates. Another method of data collection involved sharing the questionnaire in various student groups on social media platforms. To increase respondent engagement and motivation to complete the questionnaire, an infographic containing key information and a link to the questionnaire was created.

Data collection for the questionnaire part of the study was concluded in March 2023. A short analysis revealed that a total of 25 respondents expressed interest in participating in interviews. Eventually, 5 respondents were selected for subsequent interviews based on their questionnaire responses. Respondents were chosen based on their indication of having uninstalled an application at some point. Subsequently, respondents were selected to ensure diversity in the research sample, considering various characteristics such as age, year of study, university, field of study, and different applications used.

Ethical aspects of research

With regard to ethical standards within the research, participants were informed about the nature of the research both before the questionnaire section and before the interviews. In the questionnaire section, participants were provided with written information about the anonymization of collected data and the option to terminate the questionnaire at any time. Prior to the interviews, the purpose of the study, interview processing methods, and the option to refrain from answering any questions or withdraw from the interview at any time were reiterated. Participants were also informed about the audio recording of the interview, which served for accurate transcription purposes. Oral consent was obtained for recording the interview and for the use of interview data for research purposes. To maintain confidentiality and protect the personal data of users, recordings were immediately deleted after transcription. All names mentioned in the interviews were changed to preserve respondent anonymity.

The analysis of the questionnaire survey results

The first part of the research was attended by 597 respondents. Since it was not obligatory to answer all questions in the questionnaire, the number of responses varies for each question. The data from the questionnaire are presented according to individual questions. Basic socio-demographic information (gender, age, year of study, university, field of study, utilization of professional services, frequency of utilization of professional services, and psychiatric diagnosis) is summarized in the table below for better clarity.

Table 1 - Basic socio-demographic information about the respondents

Gender	Male	472 (80,1 %)
	Female	117 (19,9 %)
Year of study	1st - Bachelor study	114 (19,2 %)
	2nd - Bachelor study	92 (15,5 %)
	3rd - Bachelor study	72 (12,1 %)
	4th and higher - Bachelor study	38 (6,4 %)
	1st - Master study	118 (19,9 %)
	2nd - Master study	115 (19,4 %)
	3rd and higher - Master study	23 (3,9 %)
	Ph.D. study	21 (3,5 %)
University	Charles University	237 (40 %)
	Czech Technical University	82 (13,8 %)
	Jan Evangelista Purkyně University	48 (8,1 %)
	Palacký University	48 (8,1 %)
	Masaryk University	43 (7,3 %)
Obor studia	Humanities/Social Sciences	294 (49,6 %)
	Technical	90 (15,2 %)
	Natural Sciences	87 (14,7 %)
	Economics and Management	70 (11,8 %)
Use of professional services	Yes	269 (45,6 %)
	No	321 (54,4 %)
Frequency of utilization of professional services	Regular utilization	148 (25,5 %)
	One-time utilization	111 (19,1 %)
	Do not use	307 (52,9 %)
Psychiatric diagnosis	Yes	60 (10,2 %)
	No	527 (89,8 %)

A total of 472 women (80.1%) and 117 men (19.9%) participated in the questionnaire. The average age of the respondents was 23.4 years, with the youngest respondent being 19 years old and the oldest being 54 years old. The median age was 23 years. The most numerous group consisted of respondents aged 23 (17.3%). This was followed by respondents aged 24 (16.1%) and 21 (13.5%). One hundred eighteen respondents (19.9%) were studying in the first year of master's degree program at the time of completing the questionnaire. Slightly fewer, a total of 115 respondents (19.4%), were in the second year of the master's degree program, and 114

respondents (19.2%) were in the first year of the bachelor's degree program.

Regarding universities, the majority of respondents studied at Charles University in Prague - a total of 237 respondents, accounting for 40% of the research sample. This was followed by the Czech Technical University in Prague (CTU) with 82 respondents (13.8%), Jan Evangelista Purkyně University in Ústí nad Labem (UJEP) with 48 respondents (8.1%). The same number of respondents also came from Palacký University in Olomouc (48 respondents, 8.1%). Forty-three respondents (7.3%) participated in the research from Masaryk University in Brno. Additionally, the questionnaire was also completed by students from Ostrava University, University of Economics in Prague, and Czech University of Life Sciences.

Regarding the field of study itself, most respondents studied humanities or social science disciplines (such as psychology, education, or law). This accounted for 294 respondents (49.6%). This was followed by students of technical fields (90 respondents, 15.2%), natural science disciplines (87 respondents, 14.7%), and economic disciplines (70 respondents, 11.8%). The specific fields of study were very diverse, ranging from psychology, special education, teaching, civil engineering to horticulture or international relations.

Psychological, psychiatric, or psychotherapeutic services were used in the past or are currently used by 269 respondents (45.6%). Regarding the frequency of use, 148 respondents (25.5%) regularly used or use these specialized services. Only once, these services were used by 111 respondents (19.1%). Sixty respondents (10.2%) have been diagnosed with a psychiatric disorder.

The above information is based on questions 1-6 of the questionnaire. The following questions are numbered according to the questionnaire as they were presented in it.

Question No. 7 - Have you ever heard of any mobile or web applications supporting mental health? If yes, which one(s)?
Based on literature research, several applications were selected, which are described both in the theoretical part of this study and are also the focus of the research. Therefore, I will now present data on 6 mentioned applications. Two additional applications mentioned in the theoretical part, Kogito and Fabulous, were not included in the research part as they were rarely mentioned in respondents' answers.

Nearly half of the respondents (49.4%) indicated that they had never heard of any of the listed applications. 28.5% heard of at least one application, 16.4% of two applications, 5.2% of three, 0.3% of four, and 0.2% of five applications included in this study.

The majority of respondents (39%) had heard of the Nepanikař application. Next, respondents had the greatest awareness of the VOS application (21.4%) and the Calmio application (13.7%). Conversely, the least known among respondents were the Endel application (0.8%), My Possible Self (1.8%), and Wysa (2.2%) applications. From the results, it is evident that the applications with the highest awareness in this research sample are those developed by Czech developers and therefore offered in the Czech language. Respondents came from the Czech, and possibly Slovak, Republics, so it is not surprising that they have the greatest awareness of applications originating from the Czech Republic. Additionally, it may be more user-friendly for users if services are offered in their native language.

However, the relatively strong performance of the Nepanikař application is interesting.

The reason may be a strong campaign supported by collaboration with the non-profit organization Nevypusť duši. During workshops at high schools and now universities, lecturers can help raise awareness of this application. Furthermore, the Nepanikař application is primarily focused on crisis situations, offering quick relief for various issues (depression, anxiety, eating disorders, etc.). For the VOS and Calmio applications, it can be said that they are more "preventive" in nature. Calmio is a meditation application, while the digital diary VOS offers the possibility of guided journaling and analysis of one's feelings and moods. Therefore, the "exclusivity" of the Nepanikař application, which is determined by its focus, may influence its higher awareness. Another undeniable advantage of the Nepanikař application is its free-of-charge nature, allowing users unlimited use of the application, which may also be one of the reasons for its "popularity".

Table 2 - Frequency Table - Awareness of all applications included in the research

Levels	Counts	% of Total	Cumulative %
0	295	49.4 %	49.4 %
1	170	28.5 %	77.9 %
2	98	16.4 %	94.3 %
3	31	5.2 %	99.5 %
4	2	0.3 %	99.8 %
5	1	0.2 %	100.0 %

Question No. 8 – Do you have any applications downloaded? If so, which one(s)?

478 respondents (80.1%) did not have any of the listed applications downloaded at the time of filling out the questionnaire. 99 respondents (16.6%) had one application downloaded, 19 (3.2%) had two applications, and 1 respondent (0.2%) had three applications downloaded.

76 respondents (12.7%) had the Nepanikař application downloaded at the time of filling out the questionnaire. 35 respondents (5.9%) had the VOS application downloaded, 21 respondents had the Calmio application (3.5%), 5 respondents had the Wysa application (0.8%), and only one respondent had the Endel application (0.2%). The order of applications downloaded by respondents coincides with the order of awareness of individual applications (meaning that respondents were most aware of the Nepanikař application, which is also the most downloaded application in this sample). Possible reasons why Nepanikař, VOS, and Calmio have the highest awareness (and therefore are the most downloaded) are mentioned above.

Table 3 - Frequency table - Downloads of all applications included in the study

Levels	Counts	% of Total	Cumulative %
0	478	80.1 %	80.1 %
1	99	16.6 %	96.6 %
2	19	3.2 %	99.8 %
3	1	0.2 %	100.0 %

Question No. 9 - If yes, how did you learn about the application?

The results indicate that there are a variety of sources from which respondents learned about the application. Among respondents who are familiar with any of the applications included in the research, the majority (31.4%) learned about the application from websites or social media. 39 respondents (7%) found the application through their own search. Furthermore, respondents most commonly learned about mental health support applications from family, friends, and acquaintances (5.4%), or from various professionals (2.1%). However, some respondents (many responses with a frequency of 1) learned about the application, for example, by participating in its development, from various courses, webinars, or presentations, or from advertisements.

Question No. 10 - Have you ever used the services of a mental health support application? By usage, it is meant downloading the application and using it at least once.

More than a third of the research sample had experience with mental health support application. However, this experience may have been a one-time occurrence rather than long-term use of the application.

Question No. 11 - Do you regularly use mental health support applications? How often?

Nearly 66% of the research sample does not use apps regularly. Almost every day, only 10 people from the entire research sample use the app.

Question No. 12 - Have you ever downloaded an application and then uninstalled it?

At least one-time use of the application mentioned in this research was reported by 207 respondents (34.8%). Conversely, 388 respondents (65.2%) had never used any of the mentioned applications. Regarding frequency of usage, 16.5% of respondents reflected only one-time usage of the application. 8.9% of respondents return to the application several times a year, 4.9% of respondents multiple times a month, 2.2% utilize the application several times a week, and only a minimum of users (1.7%) utilize the application's services almost daily. 171 respondents (28.7%) stated that they had downloaded one of the applications at some point and subsequently uninstalled it. I will address the reasons that led users to uninstall one of the applications in detail below, but I will delve into them more thoroughly in the interviews (see below).

Table 4 - Frequency table - at least one-time usage of the application

Levels	Counts	% of Total	Cumulative %
Yes	207	34.8 %	34.8 %
No	388	65.2 %	100.0 %

Table 5 - Frequency table - Frequency of app usage

Levels	Counts	% of Total	Cumulative %
I have never used the app.	392	65.9 %	65.9 %
I used the app only once.	98	16.5 %	82.4 %
Several times a year.	53	8.9 %	91.3 %
Several times a month.	29	4.9 %	96.1 %
A few times a week.	13	2.2 %	98.3 %
Almost every day.	10	1.7 %	100.0 %

Table 6 - Frequency table – Uninstallation of applications

Levels	Counts	% of Total	Cumulative %
Yes	171	28.7 %	28.7 %
No	96	16.1 %	44.9 %
I have never downloaded any applications	328	55.1 %	100.0 %

Question No. 13 – If the answer to the previous question is affirmative, for what reason did you uninstall the application?
Reasons for users uninstalling the application are varied and numerous. However, these reasons can be summarized as follows:
- Loss of interest or motivation (the application ceased to interest the user; feeling of the application being unnecessary);
- Financial reasons;
- Perception of ineffectiveness (lack of utility; feeling that the application brings no benefits);
- Unmet expectations;
- Unfriendly user interface (distracting environment; excessive notifications; advertisements; complexity of the application);
- Technical problems and limitations (limited phone memory; application lagging; necessity of updates);
- Alternative solutions (downloading another application; utilizing services elsewhere – counseling, websites, videos, etc.);
- Concerns about handling personal data.

Question No. 14 – What were the primary challenges that led you to seek out mental health support applications?

Below is a selection of the most common difficulties that prompted respondents to download one of the mental health support applications. The reported challenges include personal (including health-related), work-related, family-related, and academic problems. Generally, it cannot be said that only one primary reason led students to download the application. Often, it is a combination of various personal, academic, work-related, relationship, and family issues. Other reasons for seeking out the applications include:

- Curiosity (about the appearance of such an application; interest in its content; curiosity about how the application works)
- Education, self-learning, and work-related usage (e.g., when writing a study)
- Prevention
- Specific diagnosed conditions or experienced difficulties (anxiety, panic disorder, eating disorders, insomnia, etc.)

Question No. 15 – What do you perceive as the advantages of mental health support applications? What do you find most beneficial when using these applications?

The advantages, as well as disadvantages and limitations, will be further elaborated on in subsequent interviews. However, positive aspects of the applications can be summarized as follows:

- Speed;
- Accessibility;
- Flexibility;
- Anonymity;
- Cost-effectiveness;
- Simplicity;

- Mapping of one's feelings, self-reflection;
- Games; activities (electronic diary, exercises, meditation);
- Personal time; motivation for self-care;
- Destigmatization and education;
- Sense of belonging;
- Access to professionals;
- Initiating initial contact with professional help (e.g., before visiting a specialist).

Question No. 16 – Conversely, what do you perceive as the disadvantages of mental health support applications? What could be improved in these applications?

Similar to the previous question, the main analysis of disadvantages or limitations will be conducted during interviews. However, negative aspects of the applications can be categorized as follows:

- Need for payment;
- Lack of human contact;
- Inadequate personalization;
- Potential risks of applications (risk of not addressing problems with professionals; "self-diagnosis"; misinformation; inadequately designed interventions or activities);
- Ineffectiveness; feeling that the application does not help;
- Collection and storage of large amounts of data; risk of data leakage or misuse;
- Spending too much time on the phone;
- Technological aspects (long loading times; application crashes; connectivity issues);
- Stagnation of applications (lack of activities; feeling that the application is not evolving);
- Inadequate user interface (complexity of the application; unsuitable colors; unsuitable "online" environment).

Table 7 - Frequency Table – Replacement for Professional Services

Levels	Counts	% of Total	Cumulative %
Yes	56	9.6 %	9.6 %
No	527	90.4 %	100.0 %

Question No. 19 – Have you ever used the services of an application as a substitute for professional services?

Given the concerns of some respondents, as well as the professional community, about the possibility of replacing professional services with applications, I decided to include a question in this study regarding the substitution of professional services by applications. Table 7 shows that a total of 56 respondents (9.6%) have used the services of an application as a substitute for professional psychological, psychiatric, or psychotherapeutic services.

Discussion

Within this research work, it was possible to map the basic issues regarding the utilization of mobile applications to support mental health. The study focused on university students who could potentially be active users of these services. The first research question addressed the difficulties that lead students to seek out mental health support application services. Students reported a wide range of difficulties that led them to seek out these applications. These included personal and health-related issues, including specifically addressed symptoms and diagnoses (such as anxiety, panic disorders, eating disorders, sleep problems), academic, occupational, family, or relationship-related issues. As already mentioned, however, difficulties often do not occur in isolation but are part of a complex interrelated system that can lead students to seek psychological help. These results support further studies, both foreign and domestic, which indicate that in the

context of university students, these are highly interconnected areas that usually occur together (e.g., Hobzová, 2023; Patel et al., 2021). Bláha (2022, p. 7) literally states: "the problems of students are not clearly defined and delineated. They often arise as a result of the burden and stress that students are exposed to. It is not always exclusively due to academic obligations, but rather a cocktail of all possible problems ranging from family to relationship, economic, and health issues...". However, it is also necessary to mention that it is not always just the difficulties that lead students to seek out applications. Often, it is purely curiosity, an interest in mental health issues, an interest in how the application looks and functions, prevention, education, and personal development.

The second research question focused on the positive aspects of mental health support applications from the perspective of university students. Specifically, it asked: "What positives do students perceive in mental health support applications?" Accessibility, referring to the ability to use the application anytime and anywhere, flexibility, which allows for trying out multiple applications and selecting the ideal one for the user's needs, anonymity, the ability to use the application without sharing this fact with anyone, and cost-free access, were the advantages most commonly mentioned by users. These positives align with the findings of other studies (Rozenthal et al., 2014; Peng et al., 2016; Giota & Kleftaras, 2014). In their study focusing on university students, Patel et al. (2021) even state that feelings of humiliation,

embarrassment, or personal incompetence when seeking professional help for mental health issues are the main reasons why students often do not seek professional help. The second factor they mention is financial costs. Anonymity and cost-free access, classified as advantages of applications, can certainly help overcome these two barriers to accepting mental health assistance. Moreover, mental health support applications can serve as a kind of "bridge" between the client in need of professional help and the real professional. In this research, students appreciated both the initial contact with professional help through applications and the contacts with real professionals provided by these applications, which can facilitate the search for the "right" professional. Czech students' perceptions of this benefit align with the findings of the aforementioned study (Patel et al., 2021). These authors also state that within their developed application, students appreciated clarity, simplicity, and the associated speed in finding the necessary information. These factors also align with those mentioned by Czech students. Another benefit mentioned by students in this research is the opportunity for self-reflection offered by the applications. They appreciate the ability to record their own feelings through various techniques offered by the applications (games, electronic diaries, guided diaries, exercises, meditation). This recording can contribute to better mapping of their mental states or the ability to monitor their progress, which can then lead to "more responsible" work with the application, in other words, it can help motivate consistent work towards their goals. This factor is also mentioned by Hanft-Robert et al. (2021), who see the future of mental health support applications as a "companion" tool to sessions with professionals. They mention that the ability to have a mobile phone constantly available, the attractiveness of applications, and their speed can motivate clients to work on themselves between individual sessions with real professionals.

The third research question, on the other hand, focused on the negatives that students perceive in mental health support applications. Among the reported negatives are the lack of human contact, insufficient personalization, and potential risks associated with the use of these applications (such as the risk of not addressing issues with professionals, self-diagnosis, dissemination of incorrect information, etc.). These user-perceived risks align with the risks identified by mental health professionals regarding these applications. For example, Hanft-Robert et al. (2021) analyzed risks from the perspective of psychiatrists. Although the research in this study targeted a specific group of users, it is positive to note that users agree with professionals on these factors. Another limitation perceived by users concerns the execution of the applications, whether in terms of technological aspects (long loading times, internet connection requirements, freezing), development or lack thereof, and the (non-) improvement of applications or user interfaces (graphics, color schemes, complexity of the application environment). Users perceive these factors as negatives of the applications, yet these categories can also be viewed as positives (for instance, unsatisfactory graphic interface is undoubtedly a negative; however, if the interface is user-friendly and users have the option to customize it according to their preferences, this factor certainly falls into the positives). This fact is also confirmed by Salehi et al. (2019), who analyzed over 60 mental health support applications in their study. They utilized the Mobile App Rating Scale (MARS), a tool designed to evaluate the quality of mHealth applications. Among the quality indicators in this tool are, among others, the aforementioned user interface (referred to as "aesthetics" in the tool) and mastered technological aspects (referred to

as "functionality" in the tool). Another evaluating tool in Salehi et al.'s (2019) research was the level of application personalization, i.e., whether the application provides feedback, engages in dialogue with users, or is able to provide sufficiently personalized recommendations for specific users. Again, we can see alignment in the factors mentioned by students (users) and the "expert" community, confirmed by the inclusion of similar categories in the rating tools for application evaluation. We view this alignment as very positive, as user satisfaction with applications should be accompanied by professional appraisals, and ideally, these two perspectives should converge or at least intersect.

The fourth research question, which was: "What are the reasons that lead students to uninstall applications?" focused on the individual user experience with the application and the factors that deter users from using them. The first significant deterrent factor mentioned by users is financial reasons, i.e., the necessity of payment for using the application. Financial reasons, as the main obstacle to seeking psychological help, are also identified among university students by Patel et al. (2021). We would expect financial reasons to be relevant for students who divide their time between work and study, or who work part-time or in temporary positions. However, Peng et al. (2016) confirm that the price of the application is a deterrent factor for users across age and socioeconomic groups. Therefore, this factor does not only apply to students. Interestingly, it is worth comparing the specific motivations or reasons related to application payments. Users in studies agree that the necessity of payment is not the decisive factor for them, but rather specific circumstances. In Peng et al.'s (2016) research, the willingness to pay for applications increases as the application convinces users that it "has added value," "offers something extra" that users cannot

find elsewhere. This finding also aligns with another factor mentioned by students in this study, namely, that one of the reasons for uninstalling the application is finding alternative help (videos on YouTube, websites, online forums, etc.).

Practical implications of these findings can be multifaceted. On the positive side, at least for application developers, is the fact that users are not inherently opposed to paying for applications. However, it is crucial how the application presents payment (timing, format), whether it is sufficiently transparent in presenting its services, whether it can clearly convey information about what users can expect from the application, and whether it is based on scientifically validated methods that will be effective. By addressing these factors, applications may avoid further dropouts, as they would cover another reason identified in this study as deterrent, namely, unmet expectations that users had from the application. Unmet expectations can subsequently lead to loss of interest or motivation to use the application (another reason cited by students in this study), logically leading users to drop out. One possible step to break out of this "vicious circle" of user attrition could be a recommendation proposed by one of the respondents. Specifically, this entails the comprehensive categorization of applications, i.e., a clear overview table where users could quickly find information about the general focus of the application (general well-being vs. specific issues), its user focus (students vs. children vs. adults), and also about the developers of the application and whether the application is supported by research. Given that lack of awareness about applications, or the feeling that there are too many applications and users cannot navigate them, is one of the reasons for not downloading applications, as observed in Peng et al.'s (2016) study, I consider this recommendation to be one that could help

reduce user dropouts and, above all, increase their satisfaction.

Other deterrent factors for users include unfriendly user interfaces, which can encompass disruptive application environments (advertisements, unpleasant design), application complexity, or excessive notifications, as well as technological problems and limitations, such as limited phone memory, application freezing, or the need for updates. These reasons align with findings from other studies. (Alqahtani & Orji, 2019; Thach, 2018)

The sensitivity of mental health topics can also be observed in the last deterrent factor, which is general concerns about handling sensitive data stored by applications. This factor also aligns with findings from other research (Thach, 2018; Torous et al., 2018; Peng et al., 2016). Peng et al. (2016) suggest that sharing personal information can be perceived on two levels. Firstly, the level of sharing personal information with the application itself, which can be problematic or even dangerous if it's unclear who is behind the application. In this context, users of "physical" applications concur with users of "mental" applications. However, the second context may be perceived differently, concerning the sharing of information with friends, family, and other users. As outlined above, for users in the study by Peng et al. (2016), this sharing can be motivating and beneficial. Conversely, users in the research for this study perceive this sharing as one of the deterrent factors.

Limits of the research
Like all research studies, this research also has certain limitations. Firstly, there are limitations related to the administered questionnaire. The questionnaire was created by the author specifically for the purposes of this study. Although a pilot study was conducted to check the clarity of

the questionnaire, it was not further validated or standardized. Therefore, some respondents may not have fully understood the questions or may have interpreted them differently than intended by the author, potentially leading to biased results. Another limitation is that the questionnaire was administered online, allowing anyone to fill it out. Although the questionnaire was described as intended for university students in the survey description, infographic, and shared posts on social media, it is possible that it was completed by individuals who are not currently attending university. One limitation, which could also be seen as a potential inspiration for further research, is the overrepresentation of women. This gender imbalance applies to both the questionnaire and the interviews. Although some studies (e.g., Smith, 2008) demonstrate that women are generally more willing to participate in online surveys, this imbalance can still be considered a limitation of the study due to the lack of representativeness of the research sample. Therefore, it would be appropriate to include more men in future research in this area. Regarding the representativeness of the sample, respondents who had already uninstalled one of the applications were deliberately selected for the interview portion of the study. Therefore, the subsequent interviews may have been influenced by this fact, and the selected respondents may have had a more critical and negative attitude towards the applications. Additionally, during the analysis of the interviews, other potential topics emerged (such as the role of applications in mental health care) that were not further explored.

Conclusion

This research focused on mental health support applications among university students. Given the limited number of studies or articles on the topic of eHealth,

mHealth, and mobile applications supporting mental health in the Czech context, we see the contribution of this work in raising awareness of this topic and potentially motivating further research. Through administering the questionnaire and sharing it among students on social media, there was feedback indicating that students were previously unaware of such applications, and the research motivated them to seek out and explore these applications. Thus, the significance of this research also lies in disseminating much-needed awareness about mental health and the necessity of caring for it.

However, since applications are certainly not perfect and have certain limitations, mapping out these limitations and risks can also be beneficial. Reflecting on these limitations can be useful in prevention, support, and mental health care.

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SHORT-TERM YOGA BREATHING INTERVENTION IMPROVES BLOOD OXYGENATION, ACTUAL EMOTIONAL STATE AND RESILIENCE SCORE IN POSTMENOPAUSAL WOMEN

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Abstract: *Negative emotional states occurring in postmenopausal women are influenced by experiencing psychosomatic changes. It seems that the application of yoga breathing techniques could lead to an improvement in the emotional state, to an increase in vitality and resistance. The aim of the study was to investigate benefits of a 4-week yoga breathing intervention according to the "System Yoga in Daily Life ©" on blood oxygenation, heart rate, resilience and mood improvement in postmenopausal women. Postmenopausal women (N = 16, age range 53-69, 61.5 ± 7.7 years) were investigated PRE and POST the intervention by diagnostic methods: the Finger Pulse Oximeter Tool, Profile of Mood States Survey POMS-short version and Connor-Davidson Resilience Scale. Postmenopausal women completed the 4-week intervention based on yoga breathing exercises performed once a day in the evening for 30-40 minutes. Statistical correlation analysis was performed using the JAMOVI statistical program. The realized yoga breathing intervention led to a significant improvement in blood oxygenation parameters and a reduction in heart rate. Furthermore, significant positive score changes were found in the following factors: Tension, Fatigue, Anger, Depression and Confusion. The Vitality factor score significantly increased. The monitored postmenopausal women also had a significantly higher Resilience score after the completed intervention. We can conclude, that the short-term yoga breathing intervention appears to be very effective in terms of solving negative psychological states in postmenopausal women. The program can be recommended for the practice of counseling and coaching of healthy lifestyle. It can also be used in spa care and in physiotherapy care for postmenopausal women.*

Keywords: *yoga breathing, wellbeing, postmenopausal period, resilience, the „System Yoga in Daily Life ©"*

Introduction

Breath is one of the basic biorhythms that we can easily monitor. It perfectly connects the somatic-mental areas. With the help of the breath, we can regulate our health, but also our expressions and emotional movements (e.g. fear, anxiety). Life is not possible without breath. Emotional tension has a negative effect on the rhythm and depth of breathing. However, it means that the psychological state can also be retroactively influenced through the deliberate regulation of the breath. Regulated breathing can dissolve the consequences of unprocessed stress, activate attention, relieve pain, overcome fatigue, ensure good digestion, facilitate

peaceful sleep, and calm aggression (Sood, R., Sood, A., Wolf, et al, 2013, Krejčí, Kornatovská, 2017).

Breathing is a process controlled by the visceral nerves, so it is mainly an unconscious act. However, since the breath can be controlled by the will, an initially unconscious movement can be converted into a conscious activity. And so mere mechanical breathing exercises, without inner concentration, are not effective enough. What is decisive is the attention and experience with which the breathing exercises are performed. Re-education of breathing patterns is necessary for practically every person. Generally, only a little attention is paid to the culture of breathing. Few people breathe fully and deeply, slowly, and rhythmically, as it should correspond to the structure of the human body and the demands of a healthy lifestyle. Perhaps only very young children breathe correctly, adults only in sleep. Breathing mechanisms, which depend mostly on mental balance, are often disturbed from childhood to such an extent that they cease to function harmoniously (Maheshwarananda, 2000; Oriňáková, 2019).

Breathing is truly unique in its effect on the organism. This is pointed out by the psychology of breathing and at the same time draws attention to the inseparability of human physiology and human behavior, where breathing plays a key role in maintaining homeostasis and self-regulation (Pandi-Perumal, Spence, Srivastava, et al., 2022):

- Respiration is controlled centrally and peripherally, affecting all cells in the body.
- Breathing goes to all parts of the body, any part of the body can be so called "breathed" (relaxation, pain relief, etc.).
- Breathing is continuous. We can realize it in every moment of life.

- Breathing can influence emotions, memories, thoughts, physical symptoms, self-concept and self-perception and even change personality.
- Breathing can be free and restricted, conscious and unconscious.
- Breathing is important for maintaining homeostasis (acid-base balance, electrolyte balance, and oxygen and glucose supply).
- Breathing is very important for social contacts during verbal communication.
- Breathing has a reflexive character, but it comprehensively connects a person with the environment.

Menopause is a common life process that occurs throughout women's lives. It is a physiological change and not a disease (Jayabharathi, Judie, 2014; Augoulea, Moros, Lykeridou, et al., 2019). During menopause, women mainly experience symptoms such as vasomotor flashes, perspiration, insomnia, heart palpitations, mood disorders, anxiety, fatigue, irritability (Schaedel, Holloway, Bruce, & Rymer, 2021).

Breathing techniques make possibility to have control in release of mental and somatic tension. The benefits of pranayama (yogic methods of breathing control) can help increase or decrease blood pressure depending on the chosen pranayama breathing technique. Pranayama may influence the physiological systems (Saoji, Raghavendra, & Manjunath, 2019; Kornatovská, & Krejčí, 2022). Yoga exercises including pranayama techniques reduced vasomotor symptoms (5 trials, standardized mean difference (SMD) −0.27, 95% CI −0.49 to −0.05) and psychological symptoms (6 trials, SDM −0.32; 95% CI −0.47 to −0.17). Results from the meta-analysis suggest that yoga may be a useful therapy to manage bothersome vasomotor

and psychological symptoms (Shepherd-Banigan, Goldstein, Coeytaux, et al., 2017; Swain, Nanda, & Das, 2021).

The "System Yoga in Daily Life ©" is based on the traditional Indian concept of Yoga Vedanta and develops the human health potential systematically from simple exercise units to the most demanding training techniques. All breathing techniques from "System Yoga in Daily Life ©", which should have a calming effect, have the following recommendations (Kornatovská & Krejčí, 2022; Krejčí, 2021):

- The breath should be slow, rhythmic, full and deep.
- The first step to correcting distorted breathing patterns is to restore nose breathing and thus replace emergency mouth breathing.
- Short and shallow breath is unhealthy. It causes restlessness, nervousness and tension in the body.
- The healthiest is calm, deep and slow breathing, which is characteristic of a balanced and satisfied person. It is good for us to learn "full yoga breathing".

There is a diverse alternation of three types of breathing: Clavicle breathing is the least healthy way of breathing. It's short and fast. Short and fast breathing is associated with a short life; Costal breathing is the most widespread method of respiration, is slower, but still shallow. The result is tension and nervousness; Diaphragmatic breathing is the most effective of the three methods. It's slow and deep. Deep and slow breathing is an important prerequisite for a healthy and long life. Only the interplay of all the mentioned types of breathing into one whole represents the "full yoga breathing" (Bednár, Kňazovická, Melichová, 2020).

At the same time, it is important to develop and automate breathing through the nose with the gradual lengthening and slowing down of breathing sequences and the inclusion of the so-called "Kumbhak", i.e. breath holding, which induces adaptive changes in the oxygen debt in the organism and, with regular training, induces benefits like those of endurance running.

According to the "System Yoga in Daily Life ©", the breathing cycle consists of four breathing sequences:

1. breath (puraka),
2. breath holding after inhalation (antar kumbhak),
3. exhalation (rechaka)
4. breath holding after exhalation (bahir kumbhak).

Their mutual ratio, number of repetitions, rhythm, lengths of hold, etc., lead to activating or inhibiting effects. By breathing through the nose, breathing sequences can be gradually lengthened and slowed down (Repko, 2022; Maheshwarananda, 2021). Breathing exercises in yoga are performed lying down or in combination with a movement component (e.g. exercise "cat"), especially in a sitting position, classically in one of the yoga sitting positions. However, it can also be performed while sitting on a chair, a low stool on a pillow, etc. It is important to achieve an upright and relaxed body position while sitting. It is recommended to perform breathing exercises around three hours after a meal (Kornatovská 2014; Feldman & Del Negro, 2006).

Better physical and emotional functioning, greater resilience, and lower depression are associated with more positive attitudes toward aging in postmenopausal women. Modifying attitudes toward one's own aging may have the potential to influence a wide range of health and aging-related outcomes. Resilience has a positive effect on the experience of menopausal symptoms, with higher resilience being associated with fewer and milder physical and psychological symptoms of menopause (Süss, Ehlert, 2020). The importance of yoga breathing lies in the fact that it enables the

intervention of the will in the otherwise involuntary activity of the internal organs and thus opens the way to their possible regulation. Yoga breathing exercises not only affect breathing functions, but also affect the psyche, muscle tension and the function of other internal organs in the chest and abdomen area. The respiratory centers controlling breathing have a significant effect on the entire central nervous system (Süss & Ehlert, 2020).

Emotional tension has a negative effect on the rhythm and depth of breathing (Wyrwich, Yu 2011). Breathing is a process controlled by the visceral nerves, so it is mainly an unconscious act. However, since the breath can be controlled by will, an initially unconscious movement can be converted into a conscious activity. Breathing through the nose with inner attention to the process of inhaling and exhaling has a calming effect.

2. Aim, Hypotheses

The aim of the presented study was to investigate benefits of a 4-week intervention, based on pranayama techniques with calming effect according to the "System Yoga in Daily Life ©", on blood oxygenation, heart rate and resilience and mood improvement in postmenopausal women.

Based on the established aim, tasks and analysis of literary sources, the following hypotheses were formulated:

H1: After the yoga breathing intervention, the blood saturation will increase significantly in the group of monitored women.

H2: After the yoga breathing intervention, the Vitality score will increase significantly in the group of monitored women.

H3: After the yoga breathing intervention, the Resilience score will increase significantly in the group of monitored women.

3. Methodology

3.1 Subjects, Procedure

The research sample consisted of 16 postmenopausal women (age range 53-69, 61.5 ± 7.7 years), living in Prague, in the capitol of the Czech Republic. Exclusion criteria were asthma, chronic obstructive pulmonary disease, heart disease, ongoing treatment for oncological diseases and hormone replacement therapy. The selected postmenopausal women completed the 4-week yoga breathing intervention program, based on techniques according to the "System Yoga in Daily Life ©". Written informed consent to participation in the study was obtained. Participants were informed about the assessments and intervention. Research conformed to the requirements stipulated in the Declaration of Helsinki.

Before the 4-week yogic breathing intervention, two days of careful training in oximeter measurement and basic training in applied exercises were carried out with a group of women. The women were measured on the Connor Resilience Scale just before and just after the start of the intervention. POMS testing was performed in the second exercise unit of week 1, in the first unit of week 3, and in the last unit of week 4. Oximeter measurements were performed by the participating women every day, always before and after the interventional exercise unit.**3.2**

Diagnostics
Pulse oximetry – tool OxyWatch MD300C11 (Jubran, 2015)
The used tool OxyWatch MD300C11 is a finger pulse oximeter for rapid detection of blood oxygen saturation (SpO2) and heart rate in adult and pediatric patients in home and hospital environments. Pulse oximetry is a non-invasive method for measuring the amount of oxygen bound to hemoglobin (Jubran 2015). The pulse finger oximeter is small in size, its shape resembles a clothes

peg. It is easy to use to monitor saturation status and heart rate in any environment. All participants received the same model of pulse finger oximeter, which has a certificate of compliance, measurement accuracy ± 2%.

Connor-Davidson Resilience Scale CD-RISC (Connor-Davidson, 2003)

The Connor-Davidson Resilience Scale consists of 25 items, which are evaluated on a five-point Likert scale ranging from 0 to 4: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4) – these ratings result in a number between 0–100, and higher scores indicate higher resilience. (Connor, Davidson, 2003). The average person from the normal population ranges around 70-80 points.

Profile of Mood States POMS, short version (Curran, Andrykowski, & Studts,1995; Stuchlíková, Man, 2005)

A shorter version of the standardized POMS questionnaire in the Czech version (Stuchlíková, Man, 2005) was used to diagnose changes during the intervention unit in six dimensions, i.e. A (Anger), F (Fatigue), D (Depression), C (Confusion), T (Tension). POMS is considered a quick method to profile emotional states and moods, especially in connection with the need to monitor the effect of a short intervention, in our case before and after the yoga breathing intervention unit lasting 30 minutes.

3.3 Intervention

The intervention lasted 4 weeks. Every day, the women performed a prescribed yoga breathing intervention unit at home, which consisted of exercises to activate and engage the respiratory muscles in the breathing process, divided into two exercise units, one for the first two weeks, the other for the second two weeks. The exercises were performed lying on the back, sitting or kneeling. The set of exercises was based on the concept "*Sarva Hita Asanas*" (meaning "Exercises that are good for everyone") of the 1st level of the "System Yoga in daily life ©" (Maheshvarananda, 2000). These are simple and safe exercises with no contraindications accompanied by the practice of three phases of the breath inhalation (in abdominal, thoracic, subclavian areas). Detail descriptions of the exercises and their benefits are given on the websites Yoga in Daily Life (2024).

Intervention unit composition of exercises for the first two weeks: Ananda asana (relaxation with diaphragmatic and full breathing); Breath exercise with arms straight; Twisting with Legs Bent; Marjari "cat"; Hasta utthana asana (Crossing the arms above the head); Nadi Shodhana Pranayama Level 1 "Purification of the Nervous System".

Intervention unit composition of exercises for the first two weeks: Ananda asana (relaxation with diaphragmatic and full breathing); Pavana mukta asana; Twisting with Legs Straight; Marjari "cat"; Shoulder Circling with Arms Bent; Nadi Shodhana Pranayama Level 1 "Purification of the Nervous System".

3.4 Statistics

Statistical analysis was performed using descriptive statistical methods using numerical and graphical methods in Microsoft Excel 2016. Absolute and relative frequencies and the paired t-test was used to compare Pre/Post measurements were used. Statistical correlation analysis was performed using the JAMOVI statistical program.

3. Results and Discussion

4.1 Blood oxygenation and heart rate results

The lowest blood oxygenation value measured was 81 before exercise, after

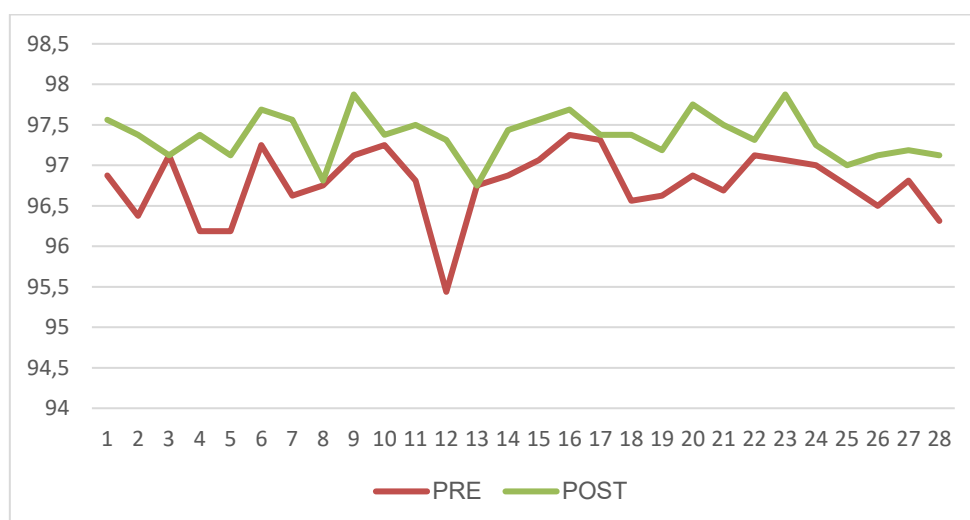exercise 92. The highest blood oxygenation value measured was 99 before exercise, after exercise the value was 100. The average oxygenation value before exercise was 96.8 and after exercise 97.4. (Table 1).

Table 1: Blood oxygenation PRE/POST – basic characteristics of the group (n = 16 women)

Phases	N	Diameter	Median	SD	SE
PRE	16	96.8	97.3	1.079	0.270
POST	16	97.4	97.3	0.801	0.200

On the Figure 1, we can see the graphical presentation of the measured average values of oxygenation. It shows the time series of the oxygenation averages of individual participants during the 28 days of PRE and POST measurements.

Figure 1. Blood oxygenation PRE/POST - average daily values in 28 days (n = 16 women)

The lowest heart rate measured was 60 before exercise, 54 after exercise. The highest measured heart rate was 85 before exercise, 89 after exercise. The average heart rate before exercise was 70.2 and after exercise was 67.2 (Table 2, Figure 2).

Table 2: Heart rate PRE and POST - basic statistical characteristics (n = 16 women)

	N	Mean	Median	SD	SE
PRE	16	70.2	69.8	4.800	1.200
POST	16	67.2	66.3	5.453	1.363

In the Figure 2, you can see the time series of heart rate averages of individual participants during the 28 days of PRE and POST measurements. To assess the influence of individual variables, a regression model with a random effect was constructed (Table 2), where the explained variable is the heart rate of the participants, the explanatory variable is the type of measurement (PRE and POST the yoga breathing intervention unit) and the monitored day (order 1 to 28). Each participant could have different input characteristics in terms of heart rate and a different response to exercise, therefore the participant was considered as a variable entering the model as a random effect. A similar model cannot be used for the explained variable due to the specific characteristics of the distribution.
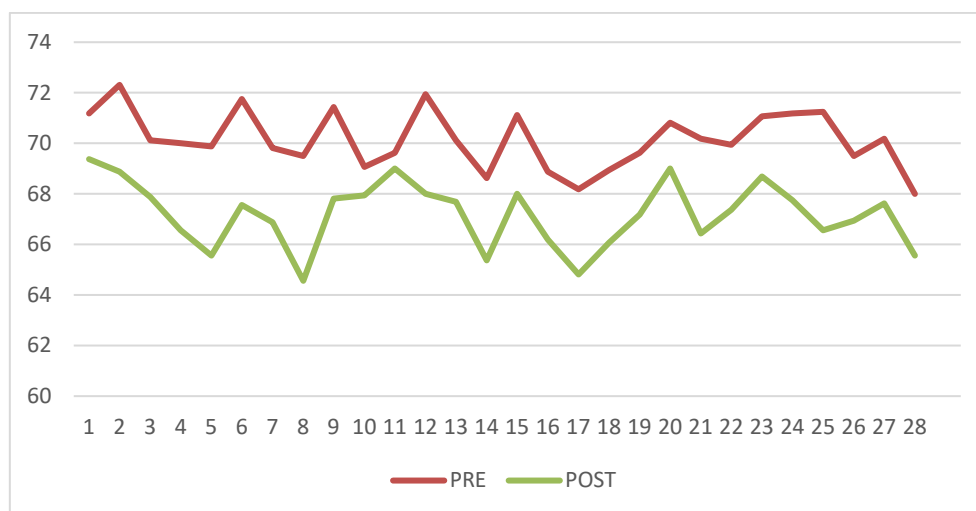
Figure 2. Heart rate PRE and POST - average daily values in 28 days (n = 16 women).

From the point of view of the studied variables, it turns out that it plays a statistically significant role when the heart rate was taken, whether PRE/POST the intervention unit (Table 3). It can therefore be interpreted that, on average, the pressure drops by 2.8 units due to this effect.

Table 3: Fixed effects parameter estimates of heart rate, type of measurement (PRE/ POST intervention unit) and observed day (order 1 - 28), (n = 16 women)

NAME	Effect	Estimate	SE	Df	T	P
(Intercept)	(Intercept)	68.750	1.265	15.0	54.338	< .001
Period	Pre – Post	-2.803	0.4926	15.0	-5.691	< .001
Period	DAY 1-28	-0.0388	0.0392	15.0	-0.990	0.338

4.2 Results of the POMS questionnaire

The answers in the questionnaire were subsequently divided into six factors: 1 – Anger, 2 – Fatigue, 3 – Vitality, 4 – Depression, 5 – Confusion, 6 – Tension (Stuchlíková, Man, 2005). In each of these categories, the relevant set of ordinal questions was evaluated and then a total scale of the given evaluation was created (Figure 3, Figure 4).
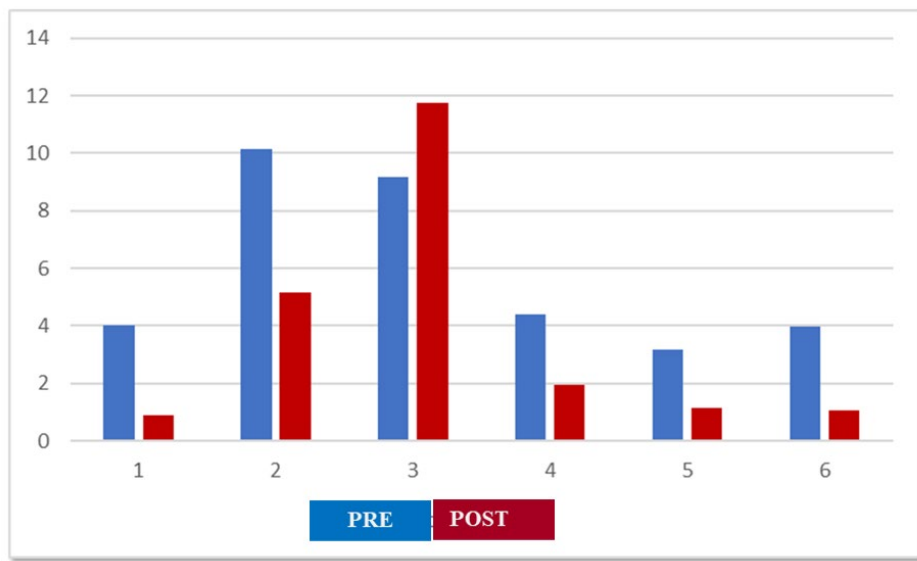
Figure 3. Comparison of the six factors: 1 – Anger, 2 – Fatigue, 3 – Vitality, 4 – Depression, 5 – Confusion, 6 – Tension, average scores of the PRE/POST intervention unit (n = 16 women)

The Figure 3 shows a comparison of the variable in relation to the period during which the data was collected. The blue color indicates the average value of the answers in the POMS A questionnaire, the red color the average value obtained from the answers of the POMS B questionnaire.
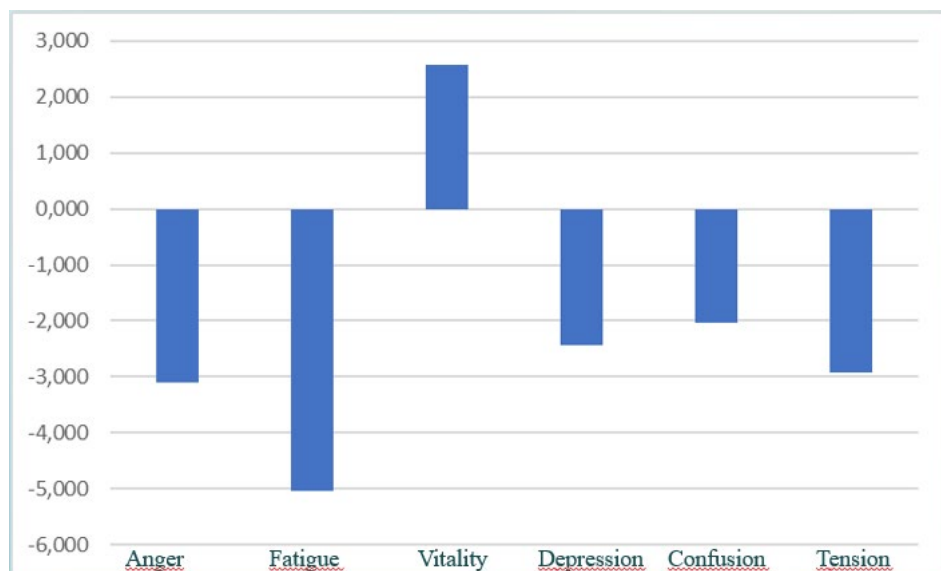
Figure 4. Average change in participant scores PRE/POST intervention unit (n = 16 women)

Results of the resilience score

Based on the answers of the sixteen participants in the resilience questionnaire, a score was created as a total scale of the given answers. Participants completed a questionnaire before and after a 4-week yogic breathing intervention. The aim of the analysis was to compare whether the

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scores achieved at the beginning and at the end of the monitored period are statistically significantly different. Since the total scale is calculated from twenty-five questions that were asked on a five-point scale, the resulting score can be considered a quantitative continuous variable. In Figure 5, at the beginning of monitoring, participants achieve a lower mean score with a higher standard deviation than at the end of monitoring. At the start of the intervention, the mean score was 67.365. At the end of the intervention 70 937. The difference between the mean PRE/POST scores is 3.572. A paired t-test for two dependent groups was used to compare PRE/POST results. A significant improvement in mean resilience scores was demonstrated from baseline.
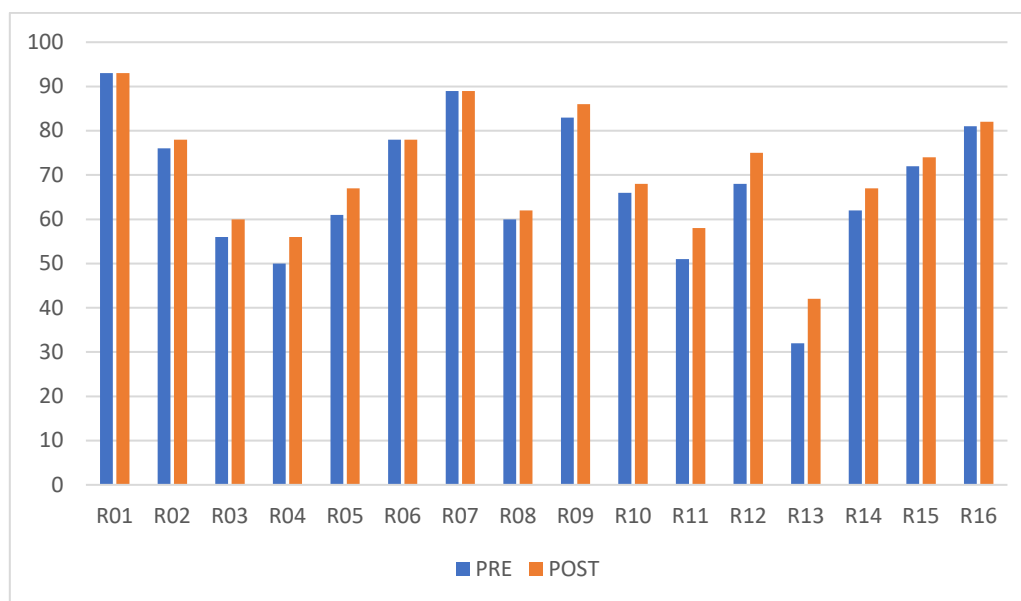
Figure 5. Results of PRE and POST scores for individual participants, (n = 16 women)

The presented study was primarily concerned with comparing the current psychological state and changes in the physical sphere (saturation and heart rate) before and after the practicing of the yoga breathing intervention unit. However, it was also investigated whether the 28-day intervention would demonstrate significant changes in vitality and tension. We can agree with previous research by Krejčí & Hornof (2017) and Swain, Nanda, & Das (2021), that a yoga intervention demonstrates significant improvements in menopause-specific quality of life across vasomotor, psychosocial, and physical symptoms.

Our previous studies (Krejčí, Psotta, Hill, Kajzar, Jandová, Hošek, 2020; Krejčí, 2021) described significant somatic-mental

balance improvements after short-term yoga interventions in elderly, when especially the disappearance of pain and stiffness in the shoulder and neck area and the breathing improvement was accented. Everyone's self-confidence improved to varying degrees, resistance to stressful situations increased, better mood and improved sleep quality were also described. A more lasting effect can also be expected for stays (spa, wellness, relaxation centers away from home), where women have time and space for themselves. (Sood et al. 2013) showed in their research that doing breathing techniques twice a day seems to be most beneficial than breathing once a day. It can therefore be assumed that the intensity and duration of the exercises lead to better and more permanent results as

similarly declare Krejčí & Jandová, (2020) and Kornatovska & Rehor (2021)

What is important to mention is that the woman's intervention program stimulated the motivation to exercise regularly, devote more time to herself, feel satisfied with herself and enjoy life. Thus, one can agree with Jayabharathi, Judie (2014), that yoga is an effective complementary health approach to improve quality of life in postmenopausal women. Socializing and sharing is important for postmenopausal women. To achieve a deeper experience, it seems more effective to perform exercises in wellness facilities or residential courses, preferably in groups. To lead women to realize that menopause is not the end of life, in the sense of accepting aging as a maturing process that can bring positive benefits to women's lives in general. Modifying attitudes toward one's own aging may have the potential to influence a wide range of health and successful aging-related outcomes as Süss, Ehlert (2020) demonstrated.

Better results could be achieved by exercising more intensively and possibly changing the choice of breathing exercises. Sood et al. (2013) demonstrated that the intensity and duration of the exercise intervention led to better and more lasting results.

Conclusion

The presented study examined 3 hypotheses. The hypothesis H1 "After the yoga breathing intervention, the blood saturation will increase significantly in the group of monitored women" was verified. It can be declared that performing breathing exercises has a significant effect on the increasing blood saturation, immediately after the yoga breathing intervention unit. Also the change in heart rate measured before and after the yoga breathing intervention unit showed a statistically significant improvement.

The hypotheses H2 "After the yoga breathing intervention, the Vitality score will increase significantly in the group of monitored women" was verified. The POMS questionnaire showed the significant differences of the intervention effects on the optimization of emotional states of the monitored postmenopausal women. The statistically significant effect was shown on the increase of the factor "Vitality". We can conclude that the intervention had a significant increase in vitality. If it is looking about a change in the "Tension" category, there is again a statistically significant relationship. The diagnostic tool POMS is very sensitive to changes in current emotional states and can be recommended as a suitable diagnostic tool for similar research on intervention effects.

The results of the PRE/POST resilience score evaluation confirmed the improvement in the resilience. The hypotheses H3 "After the yoga breathing intervention, the Resilience score will increase significantly in the group of monitored women" was verified.

It can be concluded that practicing of the breathing exercises based on the "System Yoga in daily life ©" seems to be safe, effective and beneficial especially of negative psychological states solving in postmenopausal women.

We can recommend the 4-week yoga breathing intervention also for the practice of counseling and coaching. It can also be used in spa care and in physiotherapy care for postmenopausal women. The study may be inspirative for understanding of the somatic-mental effects for further research in connection with the quality of life in the postmenopausal female population.

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MEDALLION
PROF. DR HAB. BOGUSLAW ŚLIWERSKY, DR H.C.MULT.

The importance of his personality for the cooperation of Czech and Polish universities in the field of pedagogical sciences as seen by Prof. Alena Vališová, PhDr., CSc.

Approximately thirty years ago I had the honour of meeting Professor Boguslaw Sliwerski in a professional field. It was basically a fateful meeting for me both in the human and professional sphere. Right at the beginning of our cooperation I was aware that we had many common professional topics, but also very similar views and attitudes in life. Our common goal was to gradually help teaching staff and teacher candidates to manage educational activities operatively and also to help them to navigate knowledgeably in the specific situations of particular teaching environments. The professional focus of our activities from the very beginning was to help teachers to reflect on the meaning of their own work, to form a sufficient insight into pedagogical phenomena, not to be afraid to engage in constructive dialogues, to demonstrate the ability to reinterpret problems in new contexts, to search and think independently and critically, to be aware of pedagogical processes in their development. We have always tried, together with the professor, but also with our colleagues from Poland and the Czech Republic, to present a system of knowledge that enables and opens up an understanding of pedagogy in terms of change, conflict and innovation. In our profession, we understand the above-mentioned concept as a real benefit not only for students of school teaching, but also for professionals from various fields of educational sciences.

Our intensive cooperation has developed to this day mainly on three levels: scientific, publishing and lecturing. Both the professor and I have been awarded a number of important grant projects in the course of our joint professional career, in which we have addressed key and topical issues in philosophical, psychological, sociological, political, ethical and pedagogical contexts. Gradually, we built a team of collaborators and co-investigators of research projects from Poland and the Czech Republic. On the Polish side, experts from universities and faculties of education were involved, mainly from Kraków, Wrocław, Warsaw, Gdańsk, Poznań and Łódź. Especially the cooperation with the University of Łódź was and is very intensive and lasted for many years. The specifics and concrete forms of cooperation will be the focus of another contribution of mine, which will be published in the context of the jubilee of Professor Boguslaw Sliwerski's life at the University of Łódź. There, our cooperation is really long-lasting, thanks to the professor and his "scientific school". From the Czech side, teachers and researchers from the faculties of pedagogy and philosophy in Prague, České Budějovice, Ostrava, Pardubice, Pilsen and Ústí nad Labem have worked together in our international teams. In recent years, cooperation with the Czech Technical University, specifically with the Masaryk Institute of Advanced Studies, has also developed in connection with the digitalization in education.

The scientific topics we have addressed and are addressing in our research teams are multidisciplinary and multidimensional. Central to our grant projects and publications have been issues such as philosophy of education, ethical issues in education, educational aspects of teaching, integration of pupils into schools, multiculturalism in education, social issues in education, alternative schools and the concept of freedom in the contemporary school, authority of the teacher and the authority of the school as an institution, parental authority, key competences of the teacher and pupils, current issues in family-school relations, manipulation in educational contexts, ethnic groups in schools, ICT and its use in schools, etc. Above I have listed only some of the areas of our interest that are presented in a number of specific publications, monographs, teaching texts, proceedings, in professional pedagogical periodicals in our countries, but also in a wider international context (Slovakia, Austria, Germany, Italy, Brazil, Estonia, Slovenia, Ukraine).

For the purpose of illustration, we will mention only selected grant projects and publications where our and Polish colleagues were most involved as a team. On the Polish side, the lead co-investigator from Poland was Professor Boguslaw Sliwerski. The colleagues he recommended for cooperation from the Polish side were always not only outstanding experts, but also had human qualities and moral credit. Working on the grants brought us closer together, we organised seminars, scientific conferences and workshops, and we published together. We met at various universities and teaching institutes in Poland and the Czech Republic. The most important research project was assigned to the Department of Pedagogy of the The Faculty of Arts, Charles University in Prague by the Grant Agency of the Czech Republic, entitled Authority and the Transformations of its Concept in the Educational Environment (2005-2008). The

publication of the same title, which was the output of the grant project, allowed to address the problem of authority in education from different perspectives: the phenomenon of authority in a globalized world and in a pluralistic society; authority and its pedagogical contexts - history and present; authority in the mirror of educational reality; relativization of authority and its impact on children and youth (Vališová, A. et al. 2008. Authority and changes in its conception in the educational environment. Charles University, Karolinum Publishing House, p. 338. ISBN 978-80-246-1939-2). I will only mention the articles of Polish colleagues from the above mentioned comprehensive publication: Wrobel, A. Autorytet w perspektywie antropologicznego wymiaru pedagogicznego dzialania (s. 43-51); Bledowska, M. Pozycja ucznia w klasie szkolnej (s, 127-135); Sliwerski, B. O roli biografistyki pedagogicznej w ksztaltowaniu postaw kolejnych pokolen wobec autorytetow naukowych i dziedzictwa mysli (s. 135-149). We have recently met together at international conferences on Managing the Motivational Readiness of Technically Educated Students for the Teaching Profession (Education Policy Fund 2014-2018) and at a workshop on Developing Digital Competences of Social Science Teachers at Vocational Schools (TAČR 2018-2021). Despite the workload, the professor found time to participate in conferences on Czech grant projects and presented mostly one of the main papers. Professor Boguslaw Sliwerski's presentations were always of a high professional standard, communicated in a very understandable and interesting way, and were always interactive.

Last but not least, our intensive cooperation consists of long-term active participation in the editorial boards of journals, in presenting reviews of professional studies in our and Polish pedagogical periodicals. At present, cooperation within scientific committees and disciplinary councils in the preparation

of opposing opinions on doctoral theses and participation in their defences is also developing more and more. Recently, we had the opportunity to work with Assoc. PhDr. Jitka Lorenzová to write a review of the fundamental professional publication Pedagogika. Podrecznik akademicki by authors Zbigniew Kwicinski, Boguslaw Sliwerski and collective, which was published by Wydawnictwo Naukowe PWN SA in Warsaw in 2019, p. 1120 and will be published in the Czech Republic in April 2024 in the journal Diagnostika a poradenství v pomáhajích profesích (Diagnostics and Counselling in the Helping Professions). The review was also published in 2023 in a Ukrainian professional journal (Вісник Київського національноголінгвістичного університету. Seriya Pedagogika ta Psychologiya. 37, 86-89. ISSN 2413-3329. https://doi.org/10.32589/2412-9283.37.2022.272904. Available from: http://visnyk-pedagogy.knlu.edu.ua/article/view/272904). It was a pleasure to work with my colleague Jitka Lorenzová to write a positive review on such a fundamental publication. The professor's publications are certainly a bestseller in the professional pedagogical community not only in Poland but also abroad.

My personal encounter with the professor was not only crucial for my professional development, but our joint meetings with students, PhD students and researchers were certainly enriching for many other colleagues from Poland and the Czech Republic. We enriched each other with new pedagogical theories, practical experience and the results of extensive international research. We met professionally at universities, faculties, schools of different levels and types, but our meetings also had a personal, human dimension. Many of our Czech colleagues recall the invitation to the professor's family, which was certainly challenging for Mrs. Anežka Sliwerská.

However, she handled everything with refinement and grace. I also have an inner need to thank her on behalf of myself and my colleagues from the Czech Republic. With Professor Sliwerski and our colleagues, we tried to be a model for many students to choose a friendly educational approach, we tried to "shave off" the sterility of the university environment with our approach and to show that a teacher and a student can become close colleagues, friends and confidants.

I would like to thank, on behalf of myself, as well as on behalf of my team of close colleagues from the Czech Republic, to highly respected Professor Boguslaw Sliwerski for his professional activities and his human approach to students and colleagues, for supporting the rest of us, whether in the form of collegial sharing or by providing friendly advice. I sincerely wish you much creative strength in the years to come.

Prague 3. 2. 2024
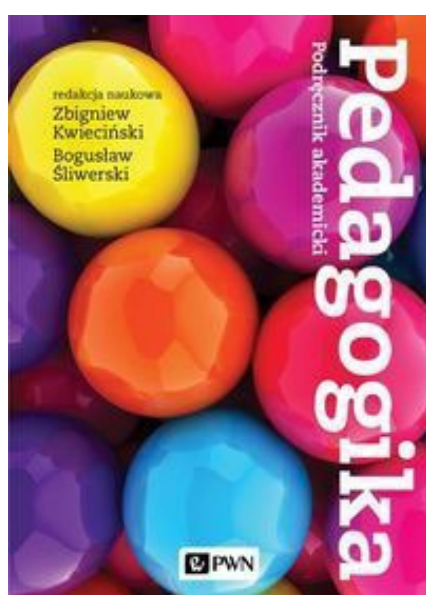With great respect and Sincerely

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REWIEW OF THE PUBLICATION PEDAGOGIKA. PODRĘCZNIK AKADEMICKI

Zbigniew Kwieciński, Bogusław Śliwerski and Collective. Warszawa: Wydawnictwo Naukowe PWN SA, 2019, revised and expanded edition, s. 1120. ISBN 978-83-01-20715-1.

The present publication Pedagogika. Podręcznik akademicky (Pedagogics. Academic Textbook) brings a revised and supplemented edition of a publication that has earned its irreplaceable place in the education of teachers and educators in Poland. The team of authors led by Zbigniew Kwieciński and Bogusław Sliwerski conceived the text as an analytical-interpretive one. It is primarily intended for students of various pedagogical orientations and also for teachers of all types and levels of schools, for bachelor, master and doctoral studies. It offers them both "canonical" knowledge and contemporary issues that are continuously raised in the context of the ongoing transformation of Polish education, which at the same time brings the need for defining key pedagogical issues in social, sociological, economic, philosophical, ethical, psychological and pedagogical context.

Although there are a considerable number of different introductions to pedagogy in current academic production, this textbook stands out for its breadth of scope, depth of analysis and clarity not always found in similar texts. Its coherent thought system, logical arrangement of the sources and consistency of interpretation provide students with a deep theoretical knowledge that allows them to ask questions in the field of educational sciences, to problematize and see new problems, to seek their solutions, and to realize the meaning of pedagogical action. There are not many texts that form a bridge between science and its application on the current Polish market (but also in the Czech Republic). There are very specialized texts analysing the methodology of science and professional work in its "broad spectrum", while on the other hand there are texts of a more methodological or unilateral application character. The connection between the two levels tends to be the exception.

The authors seek to ground the activity aspects and skill systems of the teaching profession in knowledge and understanding of pedagogical phenomena, processes and patterns. In this sense, the publication aims to promote independent pedagogical thinking that penetrates the basic relations of the pedagogical process, seizes the connections, is able to critically analyse and evaluate

individual pedagogical concepts, and distinguishes the stimulating elements from the fashionable in current debates. All this broadens the basis on which the educator can build in his educational and training activities. At the same time, it also opens up the practical significance of this knowledge and creates the conditions for fulfilling its guiding function in practical activity.

The authors do not want to overlook that in practice the educator also needs concrete advice and suggestions for his/her own creative endeavours, but at the same time they are aware that the practical problems that the educator encounters in his/her activities are closely linked to the theories. They therefore understand pedagogy neither as a purely academic discipline nor as a purely experiential and pragmatic doctrine. On the contrary, they assume the unity of theoretical knowledge and the formation of a whole complex of skills. The overall layout of the publication corresponds to this intention. It consists of three basic sections, which are logically linked to each other. Each section is then divided into subchapters.

Section I, Pedagogy as a Science, (Pedagogy as a Teaching), provides an outline of the history of education and pedagogical thinking in 23 subchapters and focuses on the characteristics of the disciplines of pedagogy. The authors assume that changes in the development and transformation of society and the family are reflected in educational theory and its disciplines, as well as in the school environment and in the various educational institutions. The complex of educational sciences is significantly affected by the above processes, both positively and negatively. In relation to this, they then define current topics that need attention not only in Poland, but also in the wider international context. These include the definition of education as a value and its place in society; the requirements for the quality of

education and its orientation; democracy in education and the problem of differentiation; the permeability of different types and levels of schools; the position of the teacher in the school and his/her competences; the personality of the pupil and his/her position in the school; the criteria for evaluating the results of pedagogical activity; the problem of the management of the educational system, etc. Furthermore, they analyse historical aspects (Stefan Woloszyn) and the current state of Polish pedagogy (Janina Kostkiewicz) and characterise the vast corpus of educational sciences, which we will only selectively outline: they present the concept and characteristics of educational theory (Bogusław Śliwerski), philosophy of education (Rafal Gordoń), religious pedagogy (Bogusław Milerski), social pedagogy (Barbara Smolińska-Theiss. Wieslaw Theiss) and special pedagogy (Iwona Chrzanowska). Interesting reflections and current issues of adult education are offered in the chapter on andragogy (Mieczyslaw Malewski). The section concludes with an analysis of the paradigms of qualitative (Donuta Urbaniak Zając) and quantitative pedagogical research (Krzysztof Rubacha). Taken as a whole, the first theoretical section offers a compact multidimensional and multidisciplinary view of pedagogy as an important scientific discipline.

Section II, Modern Thinking - Streams and Directions (Wspólczesna myśl pedagogiczna - prądy i kierunki), deals in more detail with pedagogical thinking in the 20th and 21st centuries. It contains 15 chapters in which the authors characterise from the positions of general philosophy, philosophy of education, educational theory, sociology of education, ethics and comparative pedagogy such trends as personalist, critical, emancipatory, ecological, anarchist or intercultural pedagogy. Again, let us just briefly outline some selected perspectives. The dual psychological dimension of human existence, the dimension of the world and

the dimension of the spiritual sense of education, is the subject of a number of chapters. Anti-authoritarian pedagogy is also briefly characterised (Bogusław Śliwerski). The author reflects on the relationship between freedom and responsibility, rights and duties, etc. The author notes that authority has not disappeared from the world, but it is perceived in different context, and in the relationship between adults and children it takes on new forms and shapes. However, the above-mentioned circumstances do not make it any easier to find an answer to the basic question of how to conceptualise adult authority in relation to the child, what to base it on and how to use it. The analytical interest of the authors is also aroused by anti-pedagogy and anti-authoritarian trends in education (Bogusław Śliwerski), critical pedagogy (Hanna Kostyło), postmodern pedagogical thinking (Zbyszko Melosik), and ecological (environmental) pedagogy (Anieszka Gromkowska-Melosik). Gestalt pedagogy (Wiktor Zlobicki) and, last but not least, intercultural pedagogy (Tomasz Szkudlarek) are also mentioned.

Since pedagogy always responds to the conditions in which education and training take place, the various currents of pedagogical thinking reflect not only historical contexts but also the problems of the contemporary world. Therefore, the authors invite us to reflect on how global changes (global trends such as the creation of a power society, the information explosion, ecological problems, loss of the meaning of life and value relativism, social isolation as a result of information technology, etc.) are reflected to one degree or another in the life of Polish society and what specifics of this reflection are characteristic of the conditions in a country that has been coping with the problems of transition to a democratic society for a long time. The purpose is then to inspire deeper reflection, to ask questions of oneself and to consider the context of the presented trends background.

Section III, Reform Pedagogy (Pedagogika reform edukacyjnych) offers in 12 chapters a clear description of the different trends of reform pedagogy and new pedagogical alternatives. On the basis of more detailed theoretical analyses and experience from Polish school practice, the authors then aim to summarize their findings into some generally valid conclusions. The specifics of new education (Wieslaw Jamrozek), Waldorf pedagogy and Daltonian plan pedagogy (Bogusław Sliwerski), Montessori pedagogy (Malgorzata Miksza) are presented. The pedagogy of Janusz Korczak (Bogusław Sliwerski) and the issues of school culture (Inetta Nowasad) are also analysed. Within this section, it is impossible not to notice that the issue of reform schools and innovative pedagogical approaches has its own history in Polish pedagogy and also has a significant place in the present. Thus, detailed overviews of educational reforms implemented in Poland since the 1970s are also provided.

The authors approach the topic with an awareness of some terminological difficulties. They are aware that the term reform school (alternative education) has many meanings and is often used as free school, open school, independent school, non-traditional school, private school, etc. There is terminological confusion in the field, compounded by different understandings of the term 'alternative' school in different countries and pedagogical territories. At the same time, they appreciate that, on the basis of reformist pedagogy, a productive opposition to the existing state-run system has gradually developed. Hence, the quest for alternativity is still a constant consideration in reform efforts, their planning and argumentation, and often a form of education.

The authors are aware that alternative schools have developed around the world as a variety of specific types and forms of

educational institutions and that each type of alternative school has its own features, its own positives and limits. It is therefore not easy to characterize these schools overall. Generalizations tend to indicate that the alternative school has the following features: it is pedocentric; the school is active; the school aims at a comprehensive education of the child; the school is conceived as a 'life community'; the school is understood according to the principle of learning 'from life for life'.At the same time, the team of Polish authors agrees that alternative schools are unlikely to become widespread enough to become the main type of school education, if only because they are quite different from each other and do not represent the only "alternative" development. However, they can be expected to have a greater impact on mainstream educational practice and educational theory in the future than they do today. Some of their progressive elements will gradually make their way into traditional (state) schools in Poland.

The added value of the present book is not only to help teaching staff to manage educational and training activities operatively, but also to manage specific situations in the teaching environment. It helps them to reflect on their meaning, to form sufficient perspective, to be able to engage in dialogue, to demonstrate the ability to reinterpret problems in new contexts, to search and think independently and critically, and to be aware of pedagogical phenomena in their development. Therefore, together with a system of

knowledge, it opens up an understanding of pedagogy in terms of change, conflict and innovation. In this way, this concept can be of benefit not only to students but also to professionals in different areas of educational sciences. An extensive list of Polish and foreign literature, comfortable orientation through indexes (both name and subject), and brief information about individual authors are also useful for understanding the overall context, to contribute to the quality of the text.

The publication manages to reflect the latest scientific and methodological findings in the field of education sciences in an attractive, interesting and yet comprehensible way, with an invitation to further in-depth reflection. It contributes significantly to the formation of a system of thinking that is capable of development and is open to the future not only in Poland but also in the international context.

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7th year of international scientific conference

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Morning programme (plenary session) 9 am – 12 am. Moderator: prof. Krejčí

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Capacity: 100 participants

The morning programme will broadcast online for those interested.

Afternoon programme (section meetings) 1 pm – 5 pm.

Sections:
- The role of experience in the process of "delaying the signs of aging" (moderators Prof. Krejčí, Prof. Hošek) – round table format, in Czech
- Experience and Movement (moderators Assoc. Prof. Tilinger, Assoc. Prof. Švamberk Šauerová), in Czech

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Please direct your questions towards: M. Švamberk Šauerová (phone: +420 604 908 494).

Those interested in attendace or active participation please contact us on: svamberk.sauerova@palestra.cz

We look forward to meeting you, VŠTVS PALESTRA, Prague

Assoc. Prof. PhDr. Markéta Švamberk Šauerová, Ph.D.