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Specifics of speech-language work with children and impacts of pandemia COVID-19

Abstract: This paper presents different techniques for working with children in special education in the conditions and environment of the Czech Republic. Attention is paid in particular to the context of speech-language therapy, the context of the pragmatics of communication, the impact and influence of the Covid-19 pandemic and new trends in working with the child client in the Czech Republic and abroad. The paper presents the possibilities of work in speech-language therapy and special education intervention, especially for Czech preschool and younger school children. It also describes the importance of monitoring certain aspects, preventing deepening the negative consequences of the Covid-19 pandemic, the need for a multidisciplinary approach and further preventive action in selected areas. It also provides a summary of some other possible findings on the topic.

Keywords: Speech-language therapy, Covid-19 pandemic, preschool and younger school children, adenoid hypertrophy, projective methods

Specyfika pracy logopedycznej z dziećmi w kontekście pandemii COVID-19

Streszczenie: W artykule przedstawiono różne techniki pracy z dziećmi objętymi kształceniem specjalnym w warunkach i środowisku Republiki Czeskiej. Zwrócono uwagę przede wszystkim na kontekst terapii logopedycznej oraz kontekst pragmatyki komunikacji i ich oddziaływania w pandemii Covid-19. Zaprezentowano nowe trendy w pracy terapeutycznej z dziećmi w Czechach i za granicą. W artykule przedstawiono także propozycje pracy terapii logopedycznej w zakresie edukacji specjalnej dla czeskich dzieci w wieku przedszkolnym i młodszym wieku szkolnym. Omówiono

również znaczenie monitorowania postępowania terapeutycznego w ramach zapobiegania pogłębianiu się negatywnych konsekwencji pandemii Covid-19, potrzebę multidyscyplinarnego podejścia i dalszych działań zapobiegawczych w wybranych obszarach.

Słowa kluczowe: terapia logopedyczna, pandemia Covid-19, dzieci w wieku przedszkolnym i młodszym szkolnym, przerost migdałka gardłowego, metody projektu

From the point of view of special education care, working with children in Czech conditions is a closely monitored area in which communication is of key importance. Whether it is verbal communication – spoken language, non-verbal, alternative or augmentative communication, or communication using other modern technologies and devices.

It is also necessary to take into account the specifics of bilingual or multilingual environments, cultural differences or minorities. We should also pay attention to the development of gestures and initial communication, as described, for example, by Červenková (2019). The issue of hearing (or other) impairment and its extent and influence on the development of communication in a given individual is also crucial – from this perspective, a child using both sign language and spoken language can be essentially described as a bilingual child. Is further elaborated by, for example, Ventura Amorim Silva et al. (2022), who has conducted secondary research on this topic in the context of speech-language therapy, audiology, bilingualism and others. Kuc (2019), in turn, presents an interesting case study – the case of an Armenian girl who was bilingual but simultaneously developed mutism and suspected delayed speech-language development. Kuc points out that the number of children in Poland who are brought up in different linguistic environments is increasing, and therefore speech language development may be delayed due to bilingualism or selective mutism. Therefore, such studies continue to demonstrate the importance of interdisciplinary cooperation and the ability to look beyond and find the most appropriate solutions when designing special education and speech-language therapy.

Equally important is also the influence of correct breathing, monitoring the consequences of the Covid-19 pandemic, preventing these effects from worsening and other aspects that are, or should be, reflected in special education and speech-language therapy work with the child.

Specifics in terms of speech-language therapy intervention and work with the child – the risk of adenoid hypertrophy and effects of long-term predominantly oral respiration

Since the Covid-19 pandemic in the Czech Republic, the approach to speech-language therapy prevention, intervention and communication with the child's parents have changed. More attention is now paid to other possibilities of therapy through modern technologies, remote communication, etc.

More attention should also be paid to proper breathing in children, posture, dressing, choice of leisure activities and other circumstances that ultimately affect or may affect the form of respiration in children.

The topic of adequate nasal diaphragmatic respiration has been written about, for example, by Courtney (2013), but it is important to note that the necessity to wear upper respiratory protective equipment during the Covid-19 pandemic (i.e., especially masks and respirators) may have caused the fixation of an undesirable mode of predominantly oral respiration. This is because the oral mode of breathing is generally easier for the child – easier to perform and unfortunately it very easily and quickly becomes stereotyped and at the unconscious level of the child. Moreover, in the period of wearing protective equipment, nasal breathing was much more difficult under a respirator or a mask, and therefore many adults temporarily switched to this way of breathing while wearing protective equipment. However, children are at significant risk of not being able to (or, in the worst case, not being able to) return to correct nasal breathing from this incorrect and inappropriate mode of breathing.

We consider oral respiration to be inappropriate not only in terms of the quality of inspiration (correctly it should be a diaphragmatic inspiration), but also because of other adverse consequences that a long-term preference for this way of breathing brings with it. Characteristics of this are, for example, more pronounced tooth decay or dental arch deformities and problems with dentition in general (Ballikaya et al., 2018; Pacheco-Morffi & Hernández-Millán, 2019). Furthermore, changes from a speech-language therapy perspective, such as changes in the resting position of the tongue, changes in the way articulation and working with the production of consonants, changes in the musculature of the orofacial region, and others (see further, e.g., Kerekrétiová, 2003, 2008; Lima et al., 2019; Šlesingrová et al., 2021; Šlesingrová & Vitásková, 2021a, 2021b, 2021c, 2022a, 2022b; Vitásková & Peutelschmiedová, 2005).

Another risk is hypertrophy of the pharyngeal tonsils – the development of the so-called. The pharyngeal tonsil, as an original part of the immune system of a given individual, becomes an undesirable pathological tissue, which is a source of further inflammation and can therefore be very dangerous, as these

inflammations are likely to spread further, both to the lower respiratory tract and the middle ear (Šlesingrová et al., 2021).

There is also a risk of developing the so-called Obstructive Sleep Apnoea Syndrome (OSA) due to overgrown adenoid vegetations, as pointed out e.g. by Příhodová & Dostálová (2016), Evangelisti & Villa (2019), or Formánek et al. (2019).

Generally speaking, just as it is essential to address hypernasality in speech therapy, as described in more detail by Oravkinová (2018), it is also necessary not to forget about hyponasality, which can be relatively well recognized, as also described by Škodová (2018), but its causes often remain unaddressed for a long time until more significant difficulties arise (e.g. temporary conductive hearing loss) in the child, which can be considered a very strong warning sign of a long-standing problem.

It is therefore very important in speech-language therapy and special education to monitor the child's breathing pattern, as some clinical speech-language therapists in the Czech Republic already directly include breathing therapy to teach correct habits in their intervention, but also as home practice. However, this topic is still not given as much attention as would be adequate given the potential risks and negative effects in the case of long-term predominantly oral respiration or the case of adenoid hypertrophy.

The impact of the Covid-19 pandemic from the perspective of preschool teachers

In the context of the Covid-19 pandemic, in addition to the changes in respiratory patterns already described in the previous chapter, changes in speech understanding, articulation, and sociality observed by preschool teachers have also been observed in preschool children. The research described in more detail by Šlesingrová & Vitásková (2022a, 2022b) showed that educators notice the way children breathe, but that in their opinion the number of children who breathe mainly through their mouths has increased, that after the Covid-19 pandemic, they also observe negative changes in the area of memory and attention in children, that children's vocabulary and articulation of sounds has deteriorated and that the appetite for communication as such has decreased.

The responses also reflected the observed increased fatigue in children and more difficulty in perceiving new knowledge. Some respondents reported observed deficits in areas that were previously explained and described well, but that children had lost or forgotten these skills during the pandemic.

The social aspect was also an important theme, with educators responding that children became more withdrawn due to the Covid-19 pandemic, interacted less

with their environment, were generally much less motivated to establish relationships and contact with other children, and seemed more insecure in the group. However, this problem was more pronounced among school children in particular, where the questionnaire was subsequently also distributed to primary school teachers to monitor the effects on younger school children up to the age of 12. Here, more negative changes were also observed in the wearing of masks and other protective equipment among school children, and educators observed a greater decline in skills learned. Also among school educators, females were the most frequent respondents, and more mouth-breathing was also observed in school children aged up to 12 years compared to the earlier situation; see e.g Šlesingrová & Vitásková (2022c) for more details.

Moreover, all these changes (both in the case of kindergartens and primary schools) were observed by educators who have been in the field for a long time and can therefore compare the abilities of children before and after the Covid-19 pandemic. This was directly one of the criteria to be able to obtain the answers recorded in the research. Another interesting finding was that the responses and observations of the teachers did not differ across different cities and regions of the country, nor in terms of schools located in large cities or, conversely, rural schools and so-called small classrooms. In all the areas studied, the results were similar and referred to really observable adverse changes as a result of the pandemic Covid-19.

Telepractice during the Covid-19 pandemic as a safe speech therapy option

Concerns have been raised abroad about the potential impact on the child when moving to online speech therapy. In particular, Tohidast et al. (2020) describe the concerns of parents in the process of diagnosing their children. For example, the authors cite the importance of early detection of hearing loss, for example, or therapy for stuttering so that it does not become chronic and therefore much harder to treat for the individual. At the same time, however, the authors also call for better education in the development and effective use of telepractice, which has proven to be the only viable solution to continuing speech therapy during the pandemic. They note that the ASHA has also expressed a positive view of the effect of telepractice, both in terms of diagnosis and therapy.

In their study, Passalacqua & Perlmutter (2022) investigated New York City parents' satisfaction with speech therapy delivered remotely (telepractice), specifically examining how parents rated the frequency of therapy, the effect of therapy, and more. There were a total of 107 patients in the study who had at least

one telepractice, however, only 30 parents of these patients completed the questionnaire. Nevertheless, the study showed that the participants in the research expressed satisfaction with speech therapy in the form of telepractice. In particular, they appreciated the comfort during the therapy and the greater parental involvement in the child's natural home environment. Disadvantages included inattention of younger children, technical difficulties or limited ways of conducting therapy. Thus, despite the positive evaluation of telepractice, the results showed that parents would prefer traditional speech therapy and face-to-face contact.

New approaches in the counselling process in special education due to Covid-19

The counselling process has seen several changes in recent years, not only related to the Covid-19 pandemic but also to the consequences of the war in Ukraine, which brought many children and students with different mother tongues into the Czech educational environment.

Increasing demands on counsellors, educators, psychologists, psychiatrists and therapists. Increasing numbers of children and adolescents with anxiety disorders, depressive disorders, as well as netolism, suicidal ideation and self-harm (Safety Line, 2022), and a shortage of clinical psychologists with a focus on the child client and child therapists. A school system that is still recovering from online learning and students who are slowly transferring their relationships from online to real-world settings, as well as experiencing their own identity. As a result of these events, the demands on the entire family system, its togetherness and stability, have increased in the long term.

The interdisciplinary and inclusive nature of the field of special education utilizes a variety of approaches that draw from related disciplines, including education, psychology, sociology, medicine, and other fields.

The growing importance of IT in special education is shifting the focus of special education work to the online environment, whether in the environment of virtual consultations, sharing knowledge of good practice between helping professionals, schools and parents, or in the context of special education intervention.

Although personal contact is irreplaceable, the functions and possibilities of web platforms contain the potential of using pre-programmed images, animations, and sounds in an interactive form.

One option is to use the website https://www.oaklandertraining.org/.

Violet Oaklander was a psychologist, special educator, and child therapist. Her legacy and her methods of working with children transformed into an online

platform for conducting consultations and therapies during Covid-19. Today, the following web-based modules work for helping professionals:

Projection cards

In our conditions, working with projective methods is quite common practice (projective dimensions of children's drawings, inspiration cards, variants of the incomplete sentences test and many others). Projective methods and specifics of their use are described e.g. by Najbrtová et al. (2017) or Tuber & Černý (2020). Similarly, the issue of children's drawings in Czech conditions has been very carefully addressed by Altman (2011), who observes specific identical elements in a large number of drawings, both in children with speech-language therapy diagnosis and in children with psychiatric diagnosis. This topic is also addressed by Říčan & Krejčířová (2006), who emphasize in particular the developmental aspect.

As an example of the projective method in practice, we can mention the popularity of using Dixit cards or "Sea of Emotions" cards[1] when working with children. The use of cards of this type is also popular in career counselling.[2]

Through the website https://www.freepik.com/, Karen Fried and Christine McKenna (Fried & McKenna, 2020), in collaboration with Violet Oaklander, have created a database of projective cards that relate not only to the child's inner experiences but also to the world around them.

Online Sandtray

Sandtray is an experiential, projective method of psychotherapy and uses knowledge of play therapy rooted in a humanistic approach. It could be defined as play therapy on the sandtray.

In the classical approach, this topic is addressed, for example, by Galusová (2020), who documents a considerable number of interesting case studies. Galusová gives the basic background of this approach in the Czech Republic and is also known for the implementation of courses in the Czech Republic on this method.

Abroad, Sandtray has been particularly discussed by Homeyer & Lyles (2022), who already describe the possibilities of using Sandtray in several different approaches and with additional overlaps. At the same time, Homeyer can be considered a pioneer of the Sandtray method abroad.

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[1] https://www.b-creative.cz/terapeuticke-pomucky-b-creative-more-emoci--emotion-cards.

[2] https://www.b-creative.cz/terapeuticke-pomucky-b-creative-online-karty-b-creative-60-pristupu---akce.

The online version provides pre-programmed and pre-made images for characters, families, mythical creatures, as well as doctor and soldier professions. The whole scene can be completed with trees, bushes, fences or a pond with water creatures. The sun can shine over the scene, it can rain, but also a storm, tornado or meteor shower.

Real sand and figurines are irreplaceable, as is the process of selecting and placing the figurine in the sandbox. The process of reflecting on what is happening in the sandtray, along with the concretization of bodily sensations, is more difficult in a virtual space, but when necessary, the online Sandtray is a pleasant environment for experimenting with play and symbols.

Working with puppets

For example, the possibilities of working with a virtual dollhouse can be as follows (after Violet Oaklander, Fried & McKenna, 2020):

- The therapist always chooses a puppet to "be" at the beginning of the activity. Violet Oaklander often chose a "wise owl" as her puppet.
- Choose a puppet that represents how you are feeling right now (e.g. tired, mad, happy, angry, etc.).
- Choose a puppet that represents the opposite of how you feel right now.
- Choose a puppet that reminds you of a part of yourself that you don't like.
- Choose a puppet that represents how you want to be.
- Choose puppets that represent your family. Introduce them. Where would you place them? What would you want to say to each person? Say something you like and something you don't like. Tell them how you would like them to be.

Virtual puppets can bump into each other, as well as hug each other. They can jump, they can use the animation button to say what's on their minds, etc. The app also allows you to change the background, so we can take you from home to the school playground, to the gym, to the beach or the office.

Other apps include the online Dollhouse, which, like the virtual sandbox, offers a wide range of characters and environments, but with the difference that Dollhouse gives you more options when it comes to furniture, kitchen appliances, children's toys and paintings.

For lovers of virtual painting, there is the "Mindful draw" app, which allows you to use a brush to create concrete or abstract gradually disappearing works of art to the accompaniment of your chosen relaxing underpainting.

In special education and speech-language therapy, it is important to follow a variety of possible trends and approaches. The Covid-19 pandemic has shown some negative effects, warnings and limits, but at the same time, it has also

opened up other possibilities to work with children in speech language therapy, especially through modern technologies and the transfer of some elements to the online space. From a speech language therapy point of view, it is also important to monitor children's breathing patterns, to promote adequate nasal diaphragmatic respiration and to try to eliminate the possible fixation of inappropriate breathing patterns.

In the context of special education work with a child, these methods find their application not only in the psychotherapeutic process but in the environment of online consultations they provide an introductory playful activity for the child client. They can also find use in special education or speech-language therapy diagnosis or intervention.

Dedication

The paper is based on the partial results of a specific research study IGA_PdF_2022_014 "Research of selected physiological and pathological mechanisms of voice, language and speech, their evaluation and intervention in the context of speech-language therapy, special education and neurodevelopmental research" (Principal researcher: Prof. Kateřina Vitásková, Ph.D.) conducted at the Faculty of Education, Palacký University Olomouc. There is no presumption of a conflict of interest in this study.

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