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Speech-language therapists' awareness of the use of orofacial myofunctional therapy as a treatment of obstructive sleep apnoea in Czechia

Abstract: Obstructive sleep apnoea is an increasingly frequent lifestyle disease which affects both children and adults, affecting more than 10% of the adult population. The risk factors include unhealthy lifestyle, older age, structural and functional changes in the orofacial area as well as spinal cord injuries. Presently, there is no specific treatment of this disorder. One of the options for supportive treatment to alleviate the occurrence of apnoea during sleep is orofacial myofunctional therapy. The aim of the research presented in the article was to identify speech-language therapists' awareness of the application of myofunctional therapy as a treatment of obstructive sleep apnoea and their awareness of the therapeutic methods in patients under supervision of a speech-language therapist. The aim of the paper is to emphasize the possibility of using myofunctional therapy among patients with obstructive sleep apnoea.

Keywords: obstructive sleep apnoea, myofunctional disorder, myofunctional therapy, speech-language therapy, interdisciplinary approach

Świadomość logopedów na temat stosowania terapii miofunkcjonalnej w sferze orofacjalnej jako metody leczenia obturacyjnego bezdechu sennego w Czechach

Streszczenie: Obturacyjny bezdech senny jest coraz częściej występującą chorobą cywilizacyjną, diagnozowaną u dzieci i dorosłych, dotyczącą ponad 10% dorosłej populacji. Do czynników ryzyka należą: niezdrowy tryb życia, podeszły wiek, zmiany strukturalne i czynnościowe w sferze orofacjalnej, urazy rdzenia kręgowego. Obecnie nie ma specyficznej metody leczenia tego zaburzenia. Jedną z możliwości leczenia wspomagającego, łagodzącego występowanie bezdechu podczas snu, jest terapia miofunkcjonalna orofacjalna. Celem badań przedstawionych w artykule było

określenie świadomości logopedów na temat zastosowania terapii miofunkcjonalnej jako metody leczenia obturacyjnego bezdechu sennego oraz metod prowadzenia terapii u pacjentów pod nadzorem logopedy. Celem pracy jest zwrócenie uwagi na możliwość stosowania terapii miofunkcjonalnej u pacjentów z obturacyjnym bezdechem sennym.

Słowa kluczowe: obturacyjny bezdech senny, zaburzenia miofunkcjonalne, terapia miofunkcjonalna, terapia logopedyczna, podejście interdyscyplinarne

Adequate development of an individual including his/her physical and mental condition is dependent on the physiological processes of breathing. The correct breathing pattern is influenced by a number of variables. In the case of a failure of the basic breathing pattern as a result of which nasal breathing is replaced with oral breathing, respiratory difficulties are manifested not only during the awake condition but mainly in sleep with an effect on sleep quality. Sleep breathing disorders are a relatively frequent problem which is manifested by various difficulties. The most serious issue in children and adults is obstructive sleep apnoea (abbreviation: OSA) (Villa, Evangelisti, Matella, Barreto & Pozzo, 2017). OSA is defined as a multifactorial disorder with repeated collapses of the upper airways during sleep. These collapses lead to a decrease (hypopnoea) or cessation (apnoea) of air flow causing oxygen desaturation of the blood and fragmented sleep. The collapses are typically accompanied by an increased breathing effort (Marcus et al., 2012; Koka et al., 2021). Peppard et al. (2013) report an OSA prevalence of 15% among adult men and 5% among adult women. The prevalence of OSA tends to increase. For example, over the past 20 years the prevalence in the USA has increased by 14–55% in the category "moderate to severe obstructive sleep apnoea." In terms of gender, OSA is more often diagnosed in men than women. Its prevalence increases with advanced age and growing body weight (Hirata et al., 2016). As far as women are concerned, Jordan, McSharry and Malhotra (2014) consider menopause to be a risk factor of OSA in women, regardless of body weight. Marcus et al. (2012) report a prevalence of 1–5% among children. However, in this age category the peak of OSA is probably among preschool children. This is a period characterized by tonsillar hypertrophy. Adenotonsillar hypertrophy may be the factor that causes OSA among children (Marcus, 2001; Katz & D'Ambrosio, 2008). Lee, Huang, Chen, Lin and Chuang (2020) emphasize the difference between the size and position of the maxilla and mandible identified in children with a mild form of OSA. In the context of the present research, it should be noted that also in these mild cases, therapy needs to be started as early as possible. This can be done by myofunctional strengthening of the tongue, orofacial muscles and mandibular protractors that regulate the position of the jaw, etc. Marcus et al. (2013) report that after adenotonsillectomy in children, OSA improved or its symptoms disappeared completely. Very good results were also shown in the case of orthodontic treatment to correct mandibular or maxillomandibular anomalies (Villa et al., 2015).

Generally, the most significant localization of the causes of OSA is the upper respiratory tract. The size of the internal dimensions changes especially in the retropalatal and retrobasilingual regions (Šonka & Slonková, 2008). In adulthood, the manifestation of OSA is supported for example by a narrow pharynx, abnormally increased length of the upper respiratory tract, specific shape of the pharyngeal lumen, change in the activity of the oropharyngeal muscles (during sleep), hyposensitivity of musculus genioglossus to negative pharyngeal pressure or hypersensitive ventilation control system (McSharry et al., 2014; Genta et al., 2017; Osman, Carter, Carberry & Eckert, 2018). An abnormality in one of the parts of the upper respiratory tract leads to the development of the disease only in a small percentage of patients. Multiple concurrent changes are often observed during examination of persons with OSA, including for example hypertrophy of the soft palate and tongue or hypertrophy of the pharyngeal walls with a fat deposit (Šonka, 2004). Obesity is the most frequent risk factor but also the cause of the development of OSA in the adult population. Fat is mainly deposited in the upper half of the body, especially in the lateral cervical region, soft palate, tongue and posterior and lateral oropharyngeal region (Hobzová, 2011, 2016). Šonka and Slonková (2008) point to the influence of heredity of up to 20%. Therefore, focus should be on hereditary predispositions to obesity, variations in the development of the craniofacial skeleton, length of the palatine uvula, soft palate, muscle activity, body constitution and, last but not least, posture (Slouka, 2016). In the course of human development, there are frequent changes in the anatomical proportions of the facial part of the skull (reduction of the airway space, reduction and retroposition of the mandible, etc.) as well as in the function and activity of the muscles of the orofacial area (position and mobility of the tongue, muscle activity, etc.). All of these changes may affect the development of OSA (Kahn & Ehrlich, 2018). Problems are caused not only by the enlarged hypertrophied tongue but also the frequently neglected issue of frenula in the oral region, where special importance is attributed to the frenulum lingue. If the frenulum is too short, it prevents the movement of the tongue in its full range, the tongue is then retracted in the posterior direction and creates a barrier to free air flow (Baxter, 2018).

A warning sign of decreased sleep quality is snoring, which is accompanied by other difficulties. A closer look at the clinical picture of OSA shows one or more of the following symptoms, which can be divided into the categories of day and night manifestations. In addition to snoring, other symptoms include nocturnal polyuria, bruxism, restless sleep, excessive night sweating, difficulty falling asleep, night terror (pavor nocturnus), etc. Daily manifestations include excessive daytime sleepiness, headaches in the morning after waking up, general fatigue, neurocognitive deficit (for example decreased memory quality), personality change, decreased libido, gastroesophageal reflux, symptoms of depression, anxiety,

irritability or even aggressiveness, etc. (Romero, Krakow, Haynes & Ulibarri, 2010; Foldvary-Schaefer, 2019; Memon & Manganaro, 2020). A closer look at the orofacial region reveals retrognathia or micrognathia, retracted chin muscle, macroglossia, deep bite, high palate, inadequate breathing pattern, orthodontic defects, pathological tongue thrust, shortened tongue frenula and other features (Memon & Manganaro, 2020). OSA is a progressive chronic disease that leads to systemic comorbidities (hypertension, cardiovascular disease, type II diabetes) thereby decreasing the quality of life (Drager et al., 2005).

In order to diagnose OSA, it is necessary to perform laboratory night-long polysomnography; the individual with OSA must meet the diagnostic criteria. These criteria are different for children and persons under 18 years of age and adults (Sateia, 2014). The basis of the examination is a detailed medical history, both personal and family, general physical examination (BMI, dietetic examination, pneumological examination, ECG, ENT examination and others), assessment of daily sleepiness and examination in a sleep laboratory (Šonka, 2004; Hobzová, 2011; Slouka, 2016). In their research, Oh et al. (2021) focused on diagnosing child patients. Their research effort was to develop an evaluation tool that would facilitate the diagnosis of sleep respiratory disorders in child patients. The result of their work is the FAIREST-6 questionnaire which includes six key factors aimed at the detection of sleep disorders. These factors are: the predominance of oral breathing, increased stress on musculus mentalis, tonsillar hypertrophy, ankyloglossia, position of dental arches, and a narrow palate.

Sedlák, Koblížek, Lánský, Šimek and Smolík (2006) emphasize a comprehensive approach to the treatment of obstructive sleep apnoea. Patients are advised to take regime measures. For example, Barczok (2018) recommends restrictions on alcohol consumption (no alcohol especially before sleep), non-smoking, following a daily routine, sufficient physical activity throughout the day, strengthening the airways, maintaining sleep hygiene or reducing body weight. A standard non-invasive treatment procedure is permanent positive airway pressure. The most common instrument for the treatment of medium to severe OSA is CPAP (abbreviation for Continuous Positive Airway Pressure). Other approaches include pharmacological therapy, conservative and/or surgical treatment (Šonka, 2004).

The foregoing information suggests that individuals with obstructive sleep apnoea are diagnosed with a specific form of orofacial myofunctional disorder. Orofacial myofunctional disorder (abbreviation: OMD; also referred to as myofunctional disorder) is an impairment of the muscles and functions of the orofacial system. This impairment affects the development of the jaw, function of the temporomandibular joint, dental occlusion, appearance (physiognomy) of the face, chewing, swallowing, breathing and pronunciation (Fisher-Voolsholz & Spenthof, 2002; Kittel, 2014). The most common causes of myofunctional

disorders are for example persistence of the suction reflex, incorrect fluid and food intake, orthodontic defects, habitual oral breathing, impairment of sensory perception, airway obstruction (long-term sucking on the thumb and/or dummy), hypertrophic cervical and/or nasal tonsils, poor oral habits (lip biting, nail biting, bruxism) or pathology of the frenula (Bahr, 2010; Carter, 2020). Myofunctional therapy (abbreviation: MFT) can be defined as a systematic and multidisciplinary approach. The therapy is carried out by a trained specialist. Specialists in the area of orofacial myofunctional therapy (abbreviation: OMT) vary between countries. They are typically speech-language therapists, dentists, orthodontists, dental hygienists, physiotherapists or occupational therapists. OMT is focused on restoring the correct function of the muscles of the orofacial region and movement patterns (TalkTools, 2021). In order to use OMT, it is necessary to identify where exactly the problem is. Only after that the problem can be rectified. OMT uses isotonic and isometric exercises that focus on the structures of the oral cavity and oropharynx. The aim of myofunctional therapy is to improve muscle tone, endurance and coordination of the movement of the lips, tongue and other orofacial structures (Saccomanno & Paskay, 2020). Myofunctional therapy also focuses on improving respiratory patterns and inducing nasal breathing. When using myofunctional therapy, it is important to understand that the body is a complex system and focus must never be on a single area, for example breathing or the oral cavity. MFT improves posture, sensibility and proprioception. The portfolio of exercises includes breathing exercises, relaxation exercises and specific exercises that stimulate adequate function of the stomatognathological and articulatory system (Kittel, 2014; Saccomanno & Paskay, 2020).

In their research, Guimaraes, Drager, Genta, Marcodes and Lorenzi-Filho (2009) identified OMT as the focal point of therapy which reduces the severity of OSA and related symptoms in adults. Verma et al. (2016) observed positive results of myofunctional therapy in mild or medium forms of OSA in adult patients. In their research, the authors used objective methods to measure the reduction in neck circumference, decrease in patients' daily sleepiness, decrease in snoring intensity and overall improvement of sleep quality and blood oxygenation. Koka et al. (2021) emphasized that OMT was effective in reducing snoring, apnoea-hypopnoea index, improving oxygen saturation and overall sleep quality. Individuals who had OMT included in their treatment did not benefit only in the quality of life but used the CPAP instrument to a much greater extent (Diaféria et al., 2017). Neumannová, Hobzová, Sova and Prasko (2018) noted that MFT achieved even greater effectiveness in the form of adjuvant therapy, mostly in the case of CPAP. An analysis of research studies aimed at children suggests that MFT was effective in these patients. Villa et al. (2017) point to a benefit consisting in an adjustment to the rest position of the tongue, nasal breathing stereotype, getting closer to optimal oral, linguistic and orofacial muscle

patterns and adequate deglutition. Guimaraes et al. (2009) recommend a combination of orthodontic treatment (applicators, rapid maxillary expansion) and myofunctional therapy in children with OSA. Chuang et al. (2019) examined the quality of life before and after the application of passive myofunctional therapy (using the Myobrace product). The Myobrace had a positive effect on craniofacial morphology and airway morphology. This effect improved the quality of life of children with OSA.

Research methodology

The main aim of the quantitative research was to identify the awareness of selected speech-language therapists of the use of myofunctional therapy as a treatment of obstructive sleep apnoea. The most suitable data collection method was a questionnaire survey. Due to the adverse epidemiological situation regarding COVID-19, the questionnaires had to be distributed electronically. The final version of the questionnaire contained 15 questions in four short sections – general information, myofunctional therapy, obstructive sleep apnoea and interdisciplinary cooperation. The questionnaire included 3 mandatory open questions (and 4 optional open sub-questions), 5 semi-open and 7 closed questions. They were both dichotomous questions and multiple choice.

The partial objectives of the research were to determine whether speech-language therapists underwent a myofunctional therapy course (MFT or OMT; in our research the term "myofunctional therapy" was used in the sense of its focus on the orofacial region; a more precise international comparison corresponds with the term OMT), and if so, to what extent they used this method in practice. Another partial objective was to monitor whether speech-language therapists had patients with obstructive sleep apnoea (OSA) and whether they cooperated with sleep centres regarding this diagnosis.

The following assumptions were used for the formulation of the research questions:

1. Speech-language therapists are not aware of the use of myofunctional therapy as a treatment of obstructive sleep apnoea in Czechia.

2. Speech-language therapists in Czechia do not use myofunctional therapy in full extent.

3. Speech-language therapists do not have many patients with obstructive sleep apnoea.

4. Speech-language therapists do not cooperate with sleep centres in the context of obstructive sleep apnoea.

Based on the research assumptions, the following research questions were formulated:

- RQ 1) What is speech-language therapists' awareness of the use of myofunctional therapy as a treatment of obstructive sleep apnoea in Czechia?
- RQ 2) To what extend do speech-language therapists in Czechia use myofunctional therapy as a treatment of obstructive sleep apnoea?
- RQ 3) How many patients with obstructive sleep apnoea do speech-language therapists in Czechia have?
- RQ 4) To what extent do speech-language therapists cooperate with sleep centres in the context of obstructive sleep apnoea?

Results of the research study

The questionnaire survey was conducted in August of 2021 and repeated in November of the same year. The questionnaires were sent to the email addresses of speech-language therapists published on the website of the Association of Speech-Language Pathologists of Czechia (abbreviation: AKL ČR) and the Association of Employees in Special Education Centres (abbreviation: APSPC). Also, the Facebook group of Clinical Speech-Language Therapists of Czechia was used. Due to the possible duplication of the recipients of the questionnaire and anonymous data collection, it was impossible to determine the exact number of questionnaires distributed. The rate of return was estimated to be around 33.3% (98 completed questionnaires).

The questionnaire was divided into four short sections focusing on the specific topics. The questions were arranged in a precise and unchanging order. The first section contained 4 questions and related to general information about the respondents – the area of specialization, length of experience, sector in which they work or who they collaborate with in the context of speech-language treatment.

The largest group included clinical speech-language therapists together with speech-language therapists in healthcare or pre-attestation speech-language therapists (a total of 78 responses, see Figure 1) of whom 44 worked in a hospital in various wards (e.g., otolaryngology/ENT, neurology, rehabilitation, long-term care), 31 in a private practice (as proprietors/owners or employees), two respondents were both in a hospital and in a private practice and one respondent was in the non-state sector. The remaining 20 respondents were special education teachers – speech-language therapists in the education sector (Figure 2).

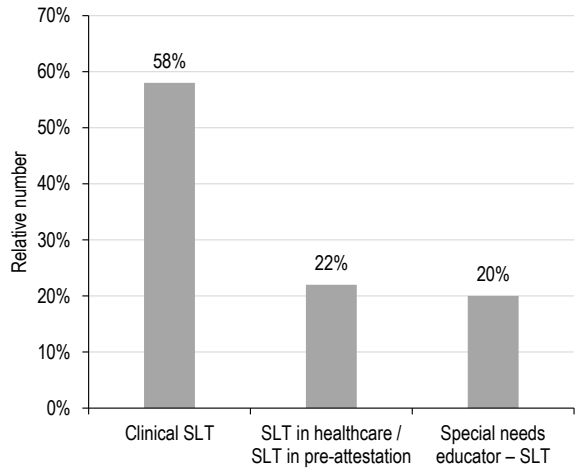

Figure 1. Respondents by professional qualification

Chart legend: Clinical SLT – SLT with clinical SLT attestation; SLT in healthcare / SLT in pre-attestation clinical SLT training; Special needs educator with state exam specialization in SLT.

Source: Own elaboration.

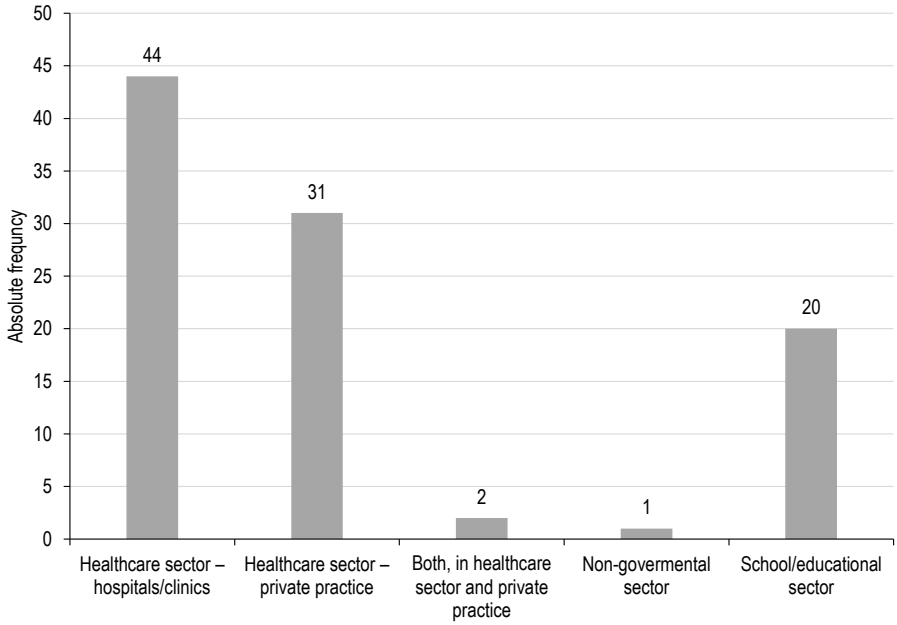

Figure 2. Respondents by the sector in which they work

Chart legend: Healthcare sector – private practice, nationally called *logopedická ambulance*.

Source: Own elaboration.

As far as respondents' length of experience is concerned (Figure 3), 52% had experience of more than 10 years, of whom 80% had experience of more than 13 years. The smallest group of respondents (10%) had experience of 7–9 years. A total of 38% of respondents had experience of 1–6 years.

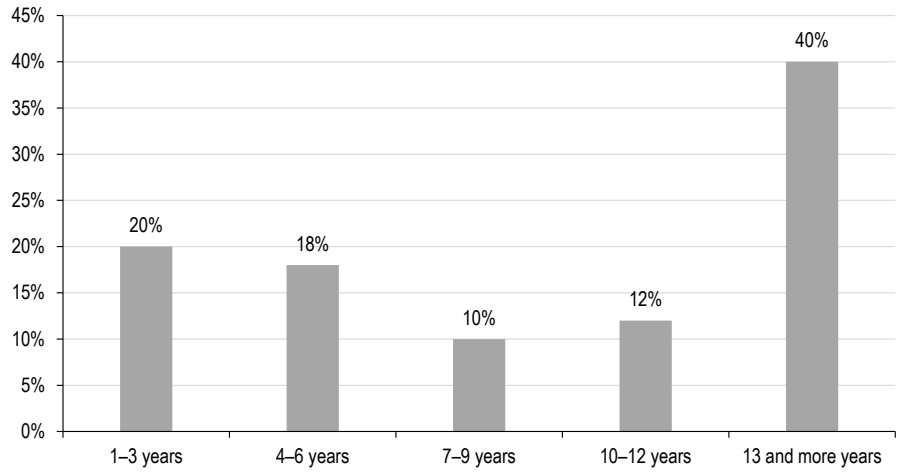

Figure 3. Respondents by their length of experience
Source: Own elaboration.

The speech-language therapists were also asked about their clients (Figure 4). Almost half of respondents reported they had only child clients. As much as 43% of respondents had both child and adult clients, while the smallest group of respondents (8%) had only adult patients.

The second battery of questions focused directly on the issue of myofunctional therapies; a specific focus was on speech-language therapists' participation in a myofunctional therapy course. Only 36% of respondents completed an MFT course, 36% have started, but not completed the course. The remaining 28% of respondents did not take this course but are planning to do so in the future (Figure 5). According to the respondents, the most frequently chosen courses were MFT taught by Jitka Kaulfussová and the one offered at the private clinic LOGO Brno (Radka Floriánová). Other mentioned courses were for example those provided by Barbora Červenková or Zuzana Jandová. As far as speech-language therapists in education are concerned, three respondents completed a course and six are planning to do so in the future.

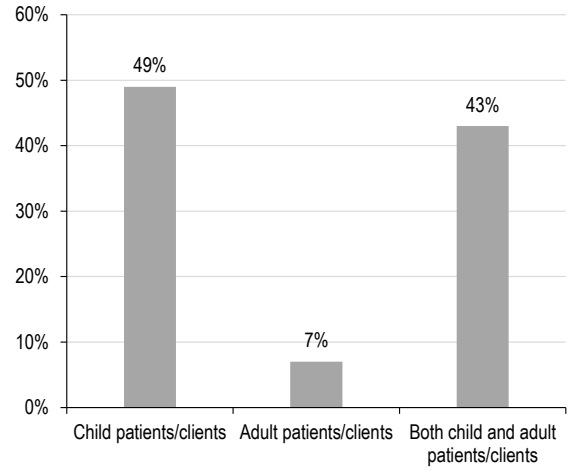

Figure 4. Distribution by clients
Chart legend: clients = patients of SLT healthcare facility or SLT "care user".
Source: Own elaboration.

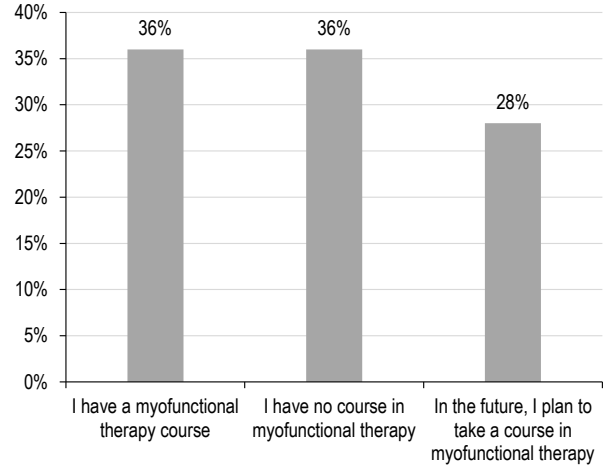

Figure 5. Participation in a myofunctional therapy course
Source: Own elaboration.

In the context of speech-language intervention, 75% of respondents used myofunctional therapy. Of the 35 respondents who completed the MFT course, only 3 (about 8%) used this method in full extent, 8 respondents used the method only partially, 20 respondents used only elements of the method, 1 respondent used the method occasionally and 3 respondents did not use MFT at all. An inter-

esting finding was the high number (44) of respondents using MFT despite not having attended a relevant course. In this case, it can be assumed that they use MFT partially or only some elements of it. Some of the respondents became familiar with MFT on foreign placements and now use those elements they had the opportunity to apply during the placement; some studied the publication *Myofunctional Therapy* by Anita Kittel. Of the total number of respondents, more than half (54%) used elements of MFT (Figure 6).

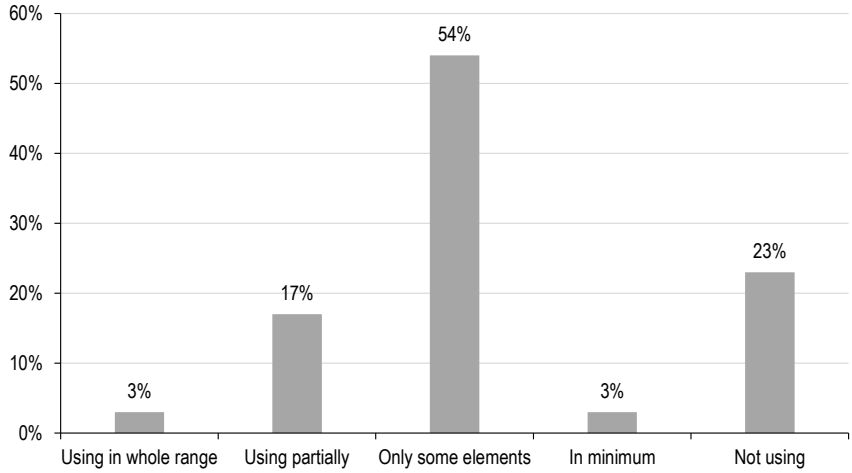

Figure 6. Use of MFT
Source: Own elaboration.

The next part of the questionnaire focused on obstructive sleep apnoea suggesting that 96% of respondents did not have patients/clients with such diagnosis. Only four respondents took care of these individuals, especially children. At the same time, these respondents completed an MFT course; two of them used MFT in full and two in part. All four respondents used myofunctional therapy in their patients/clients diagnosed with obstructive sleep apnoea.

The last section of the questionnaire focused on interdisciplinary cooperation. This section examined with whom speech-language therapists mostly cooperate in the context of their professional activities (Figure 7). Most respondents (over 80%) cooperated with neurologists, phoniatricians, ENT physicians and clinical psychologists. More than 60% of respondents cooperated with paediatricians, psychiatrists / paediatric psychiatrists, psychologists, physiotherapists, occupational therapists, special needs teachers, teachers (nursery schools, elementary schools, secondary schools) and other speech-language therapists. Least frequent cooperation was reported with orthodontists, dentists, children's nurses, lactation

consultants, gastroenterologists, consultants in social care or early care. Only one respondent cooperated with sleep centres and reported this cooperation to be very useful.

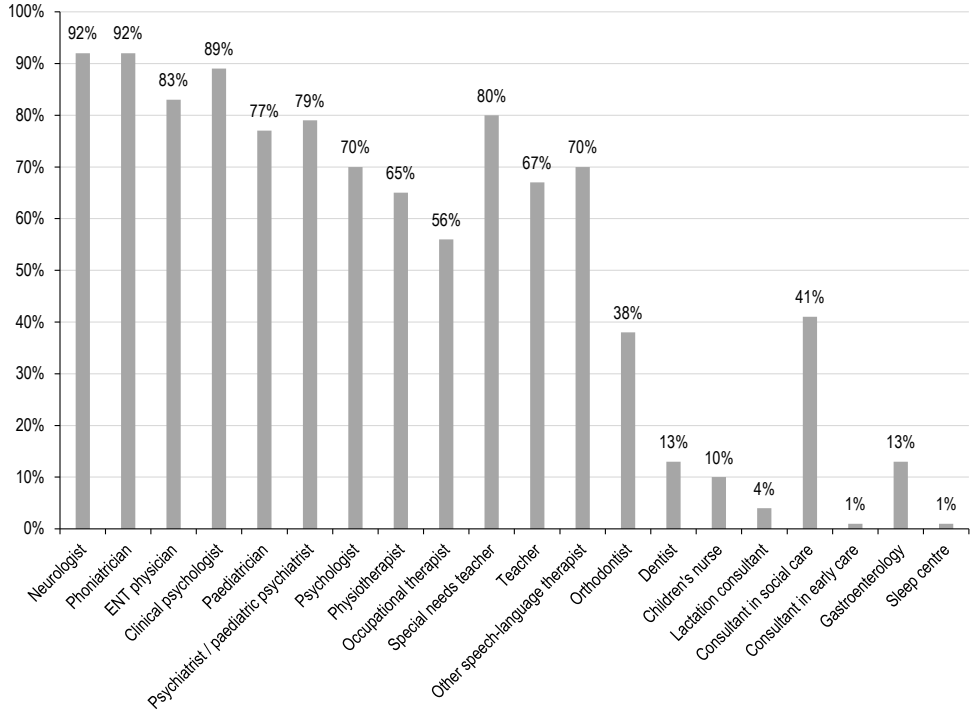

Figure 7. Cooperation of speech-language therapists with other professionals
Chart legend: Teacher – nursery schools, elementary schools, secondary schools.
Source: Own elaboration.

The last question asked the speech-language therapists if they are aware of the fact that, according to the latest research, it is possible to use MFT for the treatment of OSA (see Figure 8). As many as 87% of respondents were not aware of this possibility, and 13% knew about the therapy from articles published on various websites (DormiMed was a frequently reported website). This group included 1 special needs teacher – speech-language therapist, 2 speech-language therapists in pre-attestation and 9 clinical speech-language therapists. Concerning speech-language therapists who took care of individuals with OSA and used myofunctional therapy as part of speech-language therapy, 3 out of 4 knew about this treatment possibility.

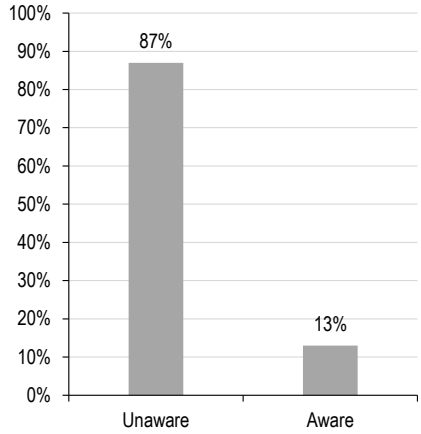

Figure 8. The awerness of the possibility to use MFT in OSA therapy
Source: Own elaboration.

Discussion

The questionnaire survey carried out in August and November of 2021 focused on speech-language therapists who work in the healthcare and education sectors. A total of 98 questionnaires returned; 80% of them were completed by speech-language therapists in the healthcare sector. A higher percentage of these respondents was expected regarding the topic relating to the health diagnosis of obstructive sleep apnoea. More than half of respondents reported work experience of more than 10 years. The smallest group included speech-language therapists working exclusively with adult patients.

The results of the research based on the questionnaire survey provided the answers to the following research questions:

RQ 1) What is speech-language therapists' awareness of the use of myofunctional therapy as a treatment of obstructive sleep apnoea in Czechia?

Based on the answers to the last question in the questionnaire and according to the findings of the research, speech-language therapists have little awareness of using MFT as part of OSA therapy. Only 13% of respondents knew about this option; they were mostly clinical speech language therapists and only one special needs teacher – speech language therapist. However, the extent of knowledge that speech language therapists have is unclear.

RQ 2) To what extent do speech-language therapists in Czechia use myofunctional therapy as a treatment of obstructive sleep apnoea?

A myofunctional therapy course was attended by 36% of respondents of whom 60% use MFT or at least elements of it in their practice. Only 3 respondents use this method in full extent. However, according to the research, 75% of all respondents use MFT independently of an MFT course. These respondents use only those elements that they are familiar with from professional placements abroad, training experience or scientific literature.

RQ 3) How many clients/patients with obstructive sleep apnoea do speech-language therapists in Czechia have?

Speech-language therapists also take care of individuals with obstructive sleep apnoea but according to the questionnaire survey this is a small proportion of respondents, specifically 4%. These respondents attended a myofunctional therapy course which they use in full or in part and use the therapy as part of interventions aimed at these clients/patients.

RQ 4) To what extent do speech-language therapists cooperate with sleep centres in the context of obstructive sleep apnoea?

One respondent mentioned cooperation with a sleep centre in relation to patients with obstructive sleep apnoea. This cooperation is considered very useful. Little cooperation was reported with orthodontists or dentists, which is important in relation to myofunctional disorders as one of the possible etiology of OSA.

The low percentage of respondents who completed a myofunctional therapy course and the number of lecturers suggests a low number of educational events focusing on this type of treatment. Moreover, the short time reserved for these events appears insufficient to ensure participants' comprehensive awareness concerning this extensive topic. The preference for the use of MFT elements could also be attributed to the diversity of speech-language therapy preventing the use of MFT in full with the exception of speech-language therapists specializing in this particular area. In Czechia, there is no official list of speech-language therapists specializing in MFT.

Another interesting fact is the small cooperation between speech-language therapists and professionals who deal with issues related to myofunctional disorders or directly myofunctional disorders. The question is whether this is due to the lack of knowledge of the scope of speech-language therapists' work on the part of these specialists, the links between the specializations within a specific diagnosis (for example a similar mechanism of development, etc.) or simply reluctance to establish cooperation. It would be desirable to establish cooperation with these specialists, which would surely result in the therapy of both myofunctional disorders and OSA being much more effective. This cooperation should primarily involve pulmonologists, somnologists and generally sleep centres which report

increasing numbers of patients with breathing problems, whether awake or asleep, traditionally caused by the collapse of the upper respiratory tract.

So far, only one research was conducted in Czechia on pulmonary rehabilitation and oropharyngeal exercises as a means of additional OSA therapy (Neumannova et al., 2018). The research confirmed the effectiveness of this therapeutic combination but at the same time highlighted the need for further verification.

Conclusions

The aim of the study was to identify speech-language therapists' awareness of myofunctional therapy as a possible therapy of OSA, to investigate whether they already use this method for this diagnosis and to encourage specialists to do further research to confirm the effectiveness of MFT in the treatment of OSA. The awareness of speech-language therapists and sleep centres of the use of MFT as part of OSA therapy is currently addressed by the Master's thesis of the main author of the article Karolína Červinková (2022). The said dissertation will also include the presently published partial results of this research.

The issue of orofacial myofunctional therapies is very extensive and affects many areas. Provided that speech-language therapists do not directly specialize in myofunctional disorders, it is impossible to use the method in full by all speech-language therapists as part of speech-language intervention. Recent foreign studies emphasize the effectiveness of myofunctional therapy as supportive and adjuvant therapy in adults as well as in child patients with obstructive sleep apnoea. The awareness of speech-language therapists in Czechia of the use of myofunctional therapy as a possible treatment of obstructive sleep apnoea is very low. The likely reason is the diversity of professional focus and expertise of speech-language therapists, often without a major specialization, but also the small number of courses specifically focused on myofunctional therapies and the brief period reserved for this extensive area. Another problem seems to be the insufficient cooperation between speech-language therapists and specialists in breathing or sleep, which also affects their awareness of these new therapeutic approaches. In view of these facts, raising awareness of this issue in Czechia is more than necessary.

Acknowledgement

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