

WHAT INFLUENCES DO PARENTS PERCEIVE AS SUPPORTIVE OF SCHOOL WELL-BEING AND THE INCLUSION OF CHILDREN WITH ADHD?: A QUALITATIVE STUDY

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Abstract

A growing body of a literature recognises the importance of special educational needs (SEN) of adolescents with attention-deficit/hyperactivity disorder (ADHD). Therefore, there is a current need for more in-depth insights into the factors that may help meet the SEN, well-being, and educational inclusion of ADHD students. The aim of this qualitative study was to assess the factors that parents perceive as being helpful for the school well-being, adaptation, and inclusion of their ADHD adolescents. The sample comprised 20 parents, aged from 30 to 60 years old, of ADHD adolescents. From the viewpoint of the parents, the teachers' knowledge of ADHD symptoms, the use of educational methods respecting the determination of ADHD, special school aids and equipment, and the help of various professionals and psychotherapy with social skills training were considered to be supportive for school well-being and the inclusion of ADHD adolescents. Practical implications emerging from the results of the present study involve training focused on the development of secure attachment of teachers, awareness-raising campaigns about ADHD, and activities supporting teacher-parent cooperation.

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MeSH Headings: Attention Deficit Hyperactivity Disorder, ADHD, Education, Schools, Students, Parents, Health, Learning

Introduction

Recognition of the special educational needs (SEN) of students with attention-deficit /hyperactivity disorder (ADHD) and the exploration of ways to meet those needs are key factors for increasing the well-being and inclusion of those adolescents at school (Margalit et al. 2020). ADHD can be defined as a disorder with a genetic and neurodevelopmental

basis (medical approach) or as a chronic condition also involving environmental, social and cultural causes (conditional approach). The medical definition of ADHD (Taylor 2013) delineated ADHD as a neurodevelopmental disorder defined by impairing levels of inattention, disorganisation, and/or hyperactivity-impulsivity, which have, a predominantly hyperactive-impulsive (Sagvolden et al. 2005), a predominantly inattentive (Saad et al. 2018) and a combined subtype (Saad et al. 2018). The hyperactive-impulsive subtype of ADHD is more prevalent in boys, while girls suffer more from the inattentive subtype (Skogli et al. 2013). The medical definition of ADHD is often criticised, because it conceptualises ADHD as a disorder caused primarily by genetic (Akutagava-Martins, Rohde, and Hutz 2016; te Meerman et al. 2019) and neurodevelopmental determinants (Dark, Homman-Ludiye, and Bryson-Richardson 2018) that may be associated with stigmatising individuals with ADHD (Mueller et al. 2012). In contrast to the medical approach, the conditional approach understands ADHD as a chronic condition (Furman 2005) that leads to increased inattention, hyperactivity and impulsivity. This conditional definition of ADHD does not consider only the genetic and neurodevelopmental factors but also the environmental (Martin et al. 2019), social (Norwich 2016), cultural (Asherson et al. 2012) and other factors (Sagiv et al. 2013).

Although some authors point out that the ADHD construct is based on the observer's subjective assessment of behaviour rather than the psychiatric condition (Wienen et al. 2019), some manifestations of ADHD may cause various problems in the education process of these students (Trampush et al. 2009). Impaired concentration (Jansen et al. 2017), motor restlessness, resistance to learning, and verbal and physical aggression towards classmates (Velki, Uzarevic, and Dubovicki 2019; Schulz-Zhecheva et al. 2019; Suades-Gonzalez et al. 2017; Velki and Dudas 2016) are examples of behaviours that may represent obstacles to the school functioning of students with ADHD, but also that influence the well-being of teachers. Furthermore, the marginalisation and insufficient inclusion of ADHD students may even lead to their increased involvement in criminal activities in adulthood (Savolainen et al. 2010). Such negative consequences represent a considerable danger to society, either through financial or social costs (Fletcher and Wolfe 2009). Considering all these arguments, an in-depth exploration of factors that may support the inclusion and increase the well-being of adolescents with ADHD is exceptionally important.

Recently, many schools have started to apply a policy of educational inclusion (Thomopoulou 2013; Smith and Bell 2015; Kauffman and Hornby 2020). This policy is based on the philosophy of acceptance and support of cooperation between students, families and educators. Educational inclusion values diversity and highlights the contribution of all students and their right to be educated alongside their peers in standard classes at high-quality schools (Liontou 2019).

Inclusive special education (Hornby 2015) is one of the dimensions of inclusion which is very influential and also provides a suitable background for the present study. Inclusive special education should focus on both assessment and interventions. Assessment strategies are suggested to help to assess the SEN of the students. Universal Design for Learning (King-Sears 2009), Response to Intervention (Burns and Gibbons 2012), Positive Behaviour Interventions and Supports (Jensen 2021) are concrete examples of such assessment strategies. In contrast, the intervention strategies are used for improving teaching effectiveness, cooperation between parents, school staff, and other professionals and for interventions that also consider the specific family or cultural background of the students (Trainor and Robertson 2020). Peer tutoring, instructional and assistive

Table 1. Demographic status of parents of students with ADHD.

Age group	Participants	Marital status	Number of children	Education	Employment
30–39	Mother	Married	1	higher education	manager
	Mother	Married	2	higher education	teacher
	Mother	Mother	2	secondary education	nurse
	Mother	Divorced	1	higher education	official
	Father	Married	3	primary education	businessman
40–49	Father	Divorced	2	higher education	psychologist
	Mother	Married	2	higher education	nurse
	Mother	Married	2	primary education	unemployed
	Mother	Married	2	higher education	teacher
	Mother	Married	2	secondary education	secretary
	Mother	Married	4	secondary education	social worker
	Mother	Married	1	higher education	manager
	Mother	Divorced	3	higher education	teacher
	Father	Married	2	higher education	therapist
	Father	Married	2	primary education	worker
	Father	Married	1	secondary education	official
	Father	Divorced	2	higher education	manager
	Father	Divorced	2	higher education	teacher
50–59	Mother	Married	2	higher education	teacher
	Mother	Married	1	primary education	secretary
	Father	Divorced	2	secondary education	businessman

technologies, the teaching of meta-cognitive strategies, or co-operative learning are examples of intervention strategies that can be used in the education of students with SEN (Hornby 2011).

SEN are usually defined as learning difficulties or disabilities which make learning more difficult for a student than for other students of the same age and which call for a special educational provision (Wedell 2017). There is also a tendency to consider the SEN of gifted students (Stava 2016), which helps develop their exceptional potential. Furthermore, some authors conceptualise SEN by using a biopsychosocial model (Norwich 2016), which also takes into account the social conditions of ADHD. Empirical research in this area focuses on examining the SEN of ADHD students in and out of school and on the supporting factors for their school adaptation and school performance.

Several studies have focused on the SEN of students with ADHD. Curtis et al. (2006) determined several categories of SEN of these students, namely a need to receive a frequent feedback on undesirable behaviour, to set goals for desirable behaviour, to record the rate of achievement, to reward for strengths and positive behaviours, and to be provided with a clear system of evaluation and conduct in the classroom. Merrick (2020) also highlighted the need for a quiet study environment and the minimising of distractions. In a study of Moore et al. (2017), teachers reported that ADHD students manage school demands better thanks to breaks outside the classroom during lessons, including relaxation and movement exercises, receiving frequent rewards and praise for desirable behaviour, and active help with the development of their study and social skills. Merrick (2020) highlighted that listening to ADHD children is a suitable way to get feedback and valuable information about their specific educational needs. Whalen and Henker (1985) suggested that the intensity of the problematic behaviours of ADHD boys decrease when they are allowed to work at their own pace. Other SEN of ADHD students may be represented by the relevant level of difficulty of the curriculum and testing or the ability to use alternative answers in testing (Brock, Jimerson, and Hansen 2009).

When turning our attention to the adaptation of ADHD students at school, the diagnosis of ADHD, medication, admiration of an ADHD student by classmates, cooperation with parents, and a teacher's empathy were found to be supporting in managing the disorder (Moore et al. 2017). Moreover, also a teacher's theoretical and practical familiarity with ADHD, a teacher's pedagogical orientation, the school system, and medication were

considered helpful (Curtis et al. 2006). Taken together, theoretical and practical knowledge are suggested to enable teachers to use the right learning strategies and classroom management. However, also teachers' empathy, tolerance (Hegarty 2018), supportive attitudes and behaviour (Baker 2006; Roorda et al. 2011), well-being, optimal adjustment and secure attachment of students with ADHD are important (Bergin and Bergin 2009). Promoting secure attachment means that the important others are sufficiently available and responsible, which allows students to build a sense of security that is a safe basis (Rutter 1989), facilitating healthy psychosocial development and exploration of the world. Thus, the recent literature describes well the supporting factors of school inclusion and SEN of ADHD students. Nevertheless, it is still not clear how the importance of these factors varies in different contexts of ADHD students. Therefore, this in-depth qualitative study focused on parents' experiences with the supporting factors that facilitate the meeting of the SEN and the school inclusion of their adolescents with ADHD.

Method

Measures and procedures

A scenario for a semi-structured interview was created before recruiting participants. The main items of the scenario were (a) ADHD students and school, (b) personality of a teacher and a student with ADHD, (c) the pedagogical approach to students with ADHD, (d) how to meet the special educational needs of ADHD students, (e) classmates and ADHD students, (f) school equipment and special teaching aids, (g) cooperation between parents and teachers, (h) cooperation with other professionals.

Participants

The sample included 20 parents of adolescents with ADHD aged 12–14 from all regions of the Czech Republic (see Table 1). The median age of the students with ADHD was 13 years. Seventeen boys and 3 girls were included. The comorbidities of ADHD in the adolescent sample were as follows: 2 girls with self-harm, substance abuse, sleeping and depressive disorders; 2 boys with dyslexia, dysgraphia and dysphasia; 1 boy with autism; 1 boy with Asperger's syndrome; 1 boy with asthma; and 3 boys with an opposition defiance disorder and substance abuse.

The criteria for selecting participants through advertisements in relevant periodicals and magazines were as follows: parents of ADHD adolescents (aged 12–14 years), ADHD in adolescents diagnosed by clinical psychologists in accordance with DSM-5 (Lee et al. 2020).

Data collection procedures

The interviews were conducted by three experienced researchers with many years of experience in qualitative research. The interviews were digitally audio recorded. The participants were assigned a pseudonym during the transcription process and care was taken to remove all personally identifiable information.

Data analysis

The method of thematic analysis (Jordan 2018) was chosen for data analysis. This way of processing data is suitable for one of the main goals of our study focusing on understanding parents' experiences with their adolescents with ADHD regarding the supporting factors that facilitate the meeting of the SEN and the school inclusion of adolescents with ADHD.

The researchers carefully and repeatedly read the transcripts of the interviews prior to our thematic analysis. Subsequently, the text of the transcripts was marked by thematic codes

and sub-codes (names of more generally emerging themes and subthemes). The resulting list of thematic codes and sub-codes was then inserted into the NVIVO 12 software by researchers, creating a node of the same name for each thematic code and inserting the appropriate sub-nodes for each node. In the second phase, the transcript files of interviews were uploaded by researchers to the program NVIVO 12. Consequently, researchers sorted and inserted the text of the transcripts under the relevant nodes and sub-nodes. At this phase, the researchers continuously discovered some other sub-nodes (sub-codes) that enriched the already existing sub-nodes tree.

Furthermore, the researchers read the texts assigned under the nodes and sub-nodes and they wrote statements of the participants out on clean paper and marked with identification labels so that the researchers could trace back which participants were involved. The statements were cut out of paper and placed side by side, depending on how they were related. Through this procedure, the researchers created several clusters, which they named by abstracting more general meaning from the statements contained under the individual clusters. Furthermore, the researchers looked for thematic connections between statements within one cluster, but also thematic connections between clusters and between statements of different clusters (see ‘Supplementary online material 1’ for a concrete example of thematic analysis of participants’ testimonies). The structure and content of the results were based on these themes.

Ethics

The ethical approach of the research was further ensured by the approval of the Ethics Committee of the Cyril and Methodius Faculty of Theology in Olomouc, number (2018/01).

Participants were informed of their rights in the research; they signed an informed consent about their participation and the participation of their ADHD children. Furthermore, they received contact details of the researchers and were paid a reimbursement for their time spent in the interview. Informed consent procedures were based on written information sheets, verbal information, and opportunities to ask questions prior to participation in the study. Participants also had the opportunity to withdraw from the study at any stage and had the opportunity to authorise versions of the texts anonymised by researchers. The audio recordings and the transcripts were stored securely in accordance with relevant legal requirements and with current Czech and European legislation on personal data protection (Freitas, Moreira, and Andrade 2017; Verschuuren et al. 2008).

Results

Teacher’s personality and awareness of ADHD disorder

Most of the participants highlighted the associations between the personality of a teacher and the school results of the students with ADHD. Openness and a kind approach were perceived to motivate ADHD students to a higher engagement in school tasks, even though they dislike them (see also ‘Supplementary online material 2’ for some examples of testimonies of adolescents suffering from ADHD). These types of teachers motivated ADHD students to work even on hated tasks in an effort ‘to make their favourite teacher happy’. *‘He hates writing. A pencil is the biggest enemy. But he writes the whole spelling exercise because he likes his teacher. He works it out for him’.*

According to the participants, the accepting attitudes and behaviours of the teachers stemmed from the nature of their personality, but there was also another related supporting factor: the teacher’s awareness and knowledge of the ADHD disorder. Teachers who were well-informed about the symptoms and behaviours related to ADHD were also more prone to accept the specific behavioural expressions of ADHD students. Moreover, well-

informed teachers could also distinguish the positive personality traits of students with ADHD as expressed by one participant. According to parents, a good teacher should be generally able to recognise the symptoms of ADHD, and this should enable him/her not to be influenced by their negative emotions so much in communication with the ADHD students.

Some participants also reported that teachers should perceive the success of a student with ADHD as their own success. This means that the teachers should consider the quality of the school's success with a student with ADHD to be part of his or her professional identity. The teacher's spontaneous interest in the student was also important. *'It is good if the teacher perceives the success of a student with ADHD as part of the result of his/her work. He/she's just interested in those kids'.*

Parents' recommendations to teachers on how to meet the special educational needs of students with ADHD

Some parents expressed many suggestions about how a teacher can support students with ADHD. For example, it was suggested that a student with ADHD should work at his or her own pace and manner. It is also important that he/she does not always have to complete all the tasks and should be provided with the opportunity to work away from the school desk. *'It was very interesting that she was lying on the carpet, reading a children's book. But when I asked her something I was talking about, she knew everything and could answer correctly'.*

Another group of recommendations was related to the methods of school evaluations. The parents suggested the use of helping aids, instructions for correcting mistakes, motivating games and rewards. They also highlighted the importance of appreciating the effort, not only the use grades for evaluations. An individual approach to each student with ADHD was suggested as a way of improving school success.

Another issue was how to check the schoolwork of an ADHD student during the course of classes. The parents suggested the teachers should check whether the student has written down all the essential information. It is useful to check the key information from the subject matter in the workbook, but also a list of homework tasks needed for the next day in the student's notebook.

It was also suggested that teachers prevent bullying. According to several participants, teachers promoted healthy relationships in the classroom when they explained to the other students the needs of ADHD students and how they could help them. Moreover, the teachers were recommended not to resolve a conflict with a student with ADHD face-to-face in front of other students in the classroom, but separately outside the classroom.

Furthermore, the parents suggested using the energy and activity of the student with ADHD in meaningful ways, for example, highlighting positive personal qualities of these students in front of their classmates. *'The teacher should use the positive qualities of ADHD children, such as their liveliness and acting talent, to make this child popular with the classmates'.*

The influence of classmates in meeting the special needs of students with ADHD

A minority of the participants reported that classmates can be of great help with an ADHD student in coping with school demands. Some friends really motivated the ADHD student to go to school and try to proceed to the next years of study. The primary motivation was the friendly relationships that the student with ADHD wanted to maintain.

The participants also reported that some classmates recognised when the symptoms complicated an ADHD student's mastering of school situations. In such cases, they could

stop the ADHD students and guide them towards the right behaviour or call for help from a teacher.

Special aids and school equipment

Some participants reported a variety of ideas for school equipment that would help ADHD students. They suggested special tables for easy writing, alternative school curricula with plenty of physical activities, a supervised separated room where an overloaded student could go to relax, special relaxation zones in the classroom, no more than 15 students in one class and more training of teachers working with ADHD students. *'It would be great if there was a separate room where an ADHD student could go in case of accumulated tension. There would be the supervision of a psychologist, teacher, or assistant. There, the student could have a chat, some physical activity or relax'.*

Cooperation between parents and teachers

Most of the participants reflected that cooperation between parents and teachers was essential for the effective functioning of an ADHD student at school. On the one hand, it was reported that it is very useful when a teacher wrote to the parents how the student behaved at school, what the student learned and what textbooks, exercise books, and other school supplies would be needed for the next school day. On the other hand, the parents also stressed that they are aware of the increased demand on the teachers' job when he or she has a student with ADHD in the classroom.

At the same time, parents also mentioned that it is beneficial if a parent informs the teacher about the current mood and health status of a student with ADHD and a mutual transfer of information about proven methods of upbringing and learning. *'I inform the teacher that my son is coming to school in a bad mood, that he slept badly and would not be able to concentrate very well. The teacher is thus prepared for what is to come and can choose the appropriate approach. After school, the teacher tells me how my son did at school, what needs to be learned and brought to school the next day'*

The support of psychiatrists, psychologists, and therapists

In most cases, having a wider team of professionals involved in helping ADHD students was positively perceived. This team should best include school management, psychiatrists, psychologists, teachers, teaching assistants, therapists, social workers and pastors. *'I would like a psychiatrist, a psychologist, and a therapist to work together. Because then the psychiatrist judges only from ten minutes, when he sees my son and he lacks a broader context of my son's behaviour and the manifestations of ADHD'.*

The participants evaluated very positively when the school management organised case conferences. The purpose of these conferences was to find ways for teachers and their students with ADHD to better manage the symptoms of ADHD. There was also an effort to fine-tune the individual education plan for the student with ADHD. *'A case conference was held to find out how to better manage my son's symptoms with ADHD at school and how to set up his individual educational plan'.*

Some participants reported how psychiatrists tried to fine-tune drug combinations in a way that reduced the degree of impulsivity for students with ADHD and allowed them to concentrate better at school. This effort was successful in some cases, although it was usually a longer process in which the students occasionally experienced adverse side effects.

Discussion

The aim of this study was to assess which factors parents of ADHD students perceived as supportive for the school functioning and school inclusion of their children. Our findings suggest that the following had a major influence: a kind personality of the teachers; secure attachment of the ADHD students to important others; knowledge of the ADHD determinants among parents, teachers and other helping professionals; school success of students with ADHD perceived as a part of a teacher's professional identity; cooperation between school leaders, parents, teachers, psychologists and psychiatrists; and practical pedagogical approaches and interventions tailored to meet the SEN of ADHD students. Some participants reported that the empathetic and kind personality of teachers and secure attachment between ADHD students and teachers, classmates, and parents led to a higher motivation of the ADHD students to study and to maintain stable and positive relationships. This is in accordance with past studies (Becker et al. 2013; Bergin and Bergin 2009; Gumustas and Yulaf 2019; Feder et al. 2017) that found associations between secure attachment with important others and better social functioning of ADHD children. Importantly, as other studies emphasise, this secure attachment must be quite strong to have a positive effect, because children with ADHD tend to form unstable and hostile relationships (Rampp, Roesler, and Peter 2020).

Furthermore, parents considered knowledge of ADHD determinants as the most important factor, because it allows the teachers to recognise that a student with ADHD is not misbehaving intentionally or to distinguish the behavioural symptoms of ADHD from behaviour that is age-appropriate. This may allow teachers to better regulate their negative emotions and to reach a higher degree of tolerance of ADHD symptoms, with greater openness to acknowledge the positive qualities of ADHD students. This finding is in accordance with a recent study by Wienen et al. (2019), where teachers reported that ADHD classification in students helped teachers to have higher empathy for ADHD students. Nevertheless, even this classification should be used moderately, as shown in the study by Wienen et al. (2019), who pointed to its negative side, i.e. that this classification burdened ADHD students with a label for many years (see also Iudici et al. 2014).

According to our participants, the teachers should also realise that even small successes in educating ADHD student represent their own big success and confirms their professional competence and teaching skills. In our study, the parents reported that neither the teacher nor the parent should have exaggerated expectations about the school results of ADHD students. This suggestion is in agreement with the study by Weyandt et al. (2013) in which ADHD students were found to have poorer academic performance because of inattention and impulsivity; psychological distress, including obsessive-compulsive symptomatology, depression, anxiety, hostility; and impaired social functioning. However, some of our participants emphasised that ADHD students have many positive qualities and talents that, if not overlooked, can help these students with school inclusion. This notification is in line with Sedgwick, Merwood, and Asherson (2019), who consider divergent-thinking, non-conformity, hyper-focus, adventurousness, self-acceptance and sublimation of excessive energy as the positive aspects of ADHD students (see also Sherman, Rasmussen, and Baydala 2006).

Some of our participants thought that relationships between classmates and an ADHD student could be improved by a teacher's explanation of the determinants of ADHD and its symptoms to all students in the class. This finding is in contrast with the recommendation of the study by O'Driscoll et al. (2012), which found that if peers know about ADHD of their classmates, they perceive them more negatively than classmates with depression. Furthermore, participants suggested that teachers should resolve conflicts with students with ADHD outside the classroom and use the positive qualities of an ADHD student to

make the student popular with classmates. The effectiveness of the practical application of these parental recommendations is, however, debatable. Positive discrimination of students with ADHD in the classroom may elicit the impression of ‘unfairness’ in other students’ eyes and may trigger negative emotions, such as envy or jealousy, targeted towards a ‘protected’ ADHD student. A sensitive and balanced approach of the teacher is needed regarding this issue (see Capodieci, Rivetti, and Cornoldi 2019).

Most of our participants would like both teachers and helping professionals to have good ADHD knowledge and mutual collaboration. However, only some participants reported having personal experience with such quality of professional help. This finding is in accordance with Murtani et al. (2020), Blatchford, Russell, and Webster (2012) and Greenway and Edwards (2020), who reported that many teachers and other professionals still lack sufficient knowledge, understanding and education for work with ADHD students or have insufficient motivation to complete training for working with ADHD students (Toye, Wilson, and Wardle 2019).

Practical implications

Secure attachment has been found to be the most fundamental helping factor. It motivates students with ADHD to overcome unpleasant feelings, to manage their study, and to maintain healthy school relationships. Therefore, teacher training focused on developing secure attachment with a student, such as self-experiential development seminars and supervision, can be recommended.

Furthermore teachers, classmates and students with ADHD should be informed about the determinants of ADHD symptoms. Therefore, information campaigns aiming to enhance teachers’ awareness of ADHD are recommended. This may help to consolidate teachers’ expectations of their ADHD students’ school success. Facilitating the inclusion of ADHD students could also happen when a teacher and other important persons perceive them not only through the ADHD label but also through a perspective that highlights their positive personality traits, talents and specific abilities.

It is also appropriate to support communication and cooperation between the teachers, parents, and professionals. Teacher-parent cooperation may include sharing information about proven working methods and approaches, the behaviour of ADHD students at school, school supplies and school responsibilities needed for the next day, or the current mental state of a student with ADHD and its consequences. The teacher and parent can thus better prepare for a certain type of behaviour of an ADHD student.

Furthermore, it can be beneficial for the student with ADHD to attend group psychotherapy, where he or she may improve social skills, self-knowledge, and self-reflection, which may lead to better school functioning.

Limitations

A limitation of our work is that our data are based on the self-report of participants from the cultural environment of the Czech Republic, which can also be distorted by many other factors, e.g. social desirability, fabrication or current mood bias. Further bias may be caused by the participants’ willingness to participate in research, as we can assume that those who wish to participate are more inclined to perceive similar helping factors.

Another limitation is that most of the participants were women between the ages of 30 and 50 and they were reporting mostly about their sons with ADHD. Therefore, we do not have enough data from the fathers of students with ADHD and parental experiences with girls with ADHD.

Permission note

All material in the manuscript is original content.

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