

SZIGETHI Zsófia

Radnóti Miklós Practice Primary and Secondary School, Eötvös Loránd University (ELTE),
Károli Gáspár University,
Eötvös Loránd University, Doctoral School of Education
szigethi.zsofia@radnoti.elte.hu

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The impact of personal contact with a child diagnosed with ADHD on teachers' knowledge of ADHD

Abstract

Teachers' understanding of Attention Deficit Hyperactivity Disorder (ADHD) is a key determinant of early identification and the successful implementation of inclusive educational practices. This study investigated the extent and structure of Hungarian primary school teachers' knowledge of ADHD and examined the potential influence of personal exposure to individuals diagnosed with the disorder, such as family members or close friends. A total of 158 teachers completed a background questionnaire and the Knowledge of Attention Deficit Disorders Scale (KADDS). Knowledge scores were computed, and independent-samples t-tests alongside item-level analyses were performed to compare teachers with (PE1) and without (PE0) personal experience. The mean overall accuracy score was 62.5% (SD = 12.9). Teachers with personal experience demonstrated significantly higher levels of ADHD-related knowledge on the total scale and across two subscales. These findings indicate that personal exposure contributes to greater understanding of ADHD among teachers. Despite certain methodological limitations, the results highlight the importance of strengthening collaboration between schools and families to enhance teacher awareness and promote more effective inclusive education practices.

Keywords: ADHD, teacher knowledge, inclusive education, professional development, personal experience

ADHD-val diagnosztizált gyerekekkel való személyes kapcsolat hatása a tanárok ADHD-ismereteire

Absztrakt

A figyelemhiányos hiperaktivitás zavar (ADHD) pedagógusok általi megértése kulcsfontosságú tényező az állapot korai felismerésében és az inkluzív nevelési gyakorlatok sikeres megvalósításában. Jelen kutatás célja a magyarországi általános iskolai pedagógusok ADHD-val kapcsolatos tudásának mértékét és szerkezetét feltárni, valamint megvizsgálni, hogy a személyes érintettség – például egy diagnosztizált családtag vagy közeli barát révén – miként befolyásolja e tudást. A vizsgálatban összesen 158 pedagógus vett részt, akik kitöltöttek egy háttérkérdőívet és a Knowledge of Attention Deficit Disorder Scalet-t (KADDS). A tudásszintek pontszámai alapján független mintás t-próbák és item-szintű elemzések készültek annak összehasonlítására, hogy a személyes tapasztalattal rendelkező (PE1) és azzal nem rendelkező

(PE0) pedagógusok között mutatkozik-e különbség. Az átlagos összpontszám 62,5% (SD = 12,9) volt. A személyes érintettséggel rendelkező tanárok szignifikánsan magasabb ADHD-ismereti szintet mutattak mind a teljes skálán, mind két alszkálán. Az eredmények arra utalnak, hogy a személyes tapasztalat hozzájárul a pedagógusok ADHD-val kapcsolatos mélyebb megértéséhez. Bizonyos módszertani korlátok ellenére a kutatás hangsúlyozza az iskola és a család közötti együttműködés erősítésének fontosságát a pedagógusok tudatosságának növelése és az inkluzív oktatási gyakorlatok hatékonyabb megvalósítása érdekében.

Kulcsszavak: ADHD, tanárok tudása, inkluzív oktatás, szakmai fejlődés, személyes tapasztalat

The impact of personal contact with a child diagnosed with ADHD on teachers' knowledge of ADHD



I. Theoretical background

1.1 ADHD

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by a persistent pattern of inattention, hyperactivity, and impulsivity that significantly impairs social, academic, or occupational functioning (American Psychiatric Association, 2013). Although typically identified during childhood, ADHD is most frequently diagnosed in adolescence (Gökçe et al., 2021) and often persists into adulthood (Trujillo-Orrego et al., 2009). The condition frequently co-occurs with other clinical disorders, including oppositional defiant disorder, conduct disorder, and anxiety disorders (Muskens et al., 2017). The global prevalence of ADHD is estimated to range between 5.9% and 7.2% (Thomas et al., 2015; Willcutt, 2012). Individuals diagnosed with ADHD often face challenges in adapting to family, school, and social environments. Impaired impulse control in school-age children often leads to behavioural problems in the classroom, resulting in reprimands from teachers and negative self-perceptions (Strelow, Schwinger & Christiansen, 2021). These difficulties can have a negative impact on school performance (Pang et al., 2021).

1.2 Teachers' knowledge of ADHD and it's measurement

ADHD presents unique challenges for teachers, placing distinct demands on their skills and classroom management strategies. However, teachers are in an advantageous position to recognise potential signs of ADHD and can act as reliable informants in the diagnostic process (Barkley, 2009). Given their central role in

supporting children with ADHD in educational settings, it is essential that teachers possess a solid understanding of the core features of the disorder to provide effective and appropriate support. Conversely, insufficient knowledge about ADHD among teachers can hinder the successful implementation of inclusive education practices for students with the condition (Martinussen et al., 2011).

A systematic review identified key barriers and facilitators to accessing ADHD-related services for children and adolescents, based on caregiver, clinician, and teacher perspectives. Major challenges included low awareness and expertise around ADHD, persistent stigma, and systemic issues like long waiting times and lack of coordination. The findings underscore the need for continuous ADHD education and policy reform to improve service delivery (McKenna et al., 2024).

To date, 22 instruments that assess knowledge about ADHD have been identified in the literature. The KADDS (Knowledge of Attention Deficit Disorder Scale, Scituito & Feldhamer, 2005) is the oldest instrument, with a long history of use, and with studies conducted in more than 15 countries. This scale has been an essential reference for the design of several other instruments (Robledo-Castro et al., 2024).

The KADDS is a 39-item scale that measures teachers' knowledge and misconceptions about ADHD in three domains: general information about the nature, causes and prognosis of ADHD (15 items); symptoms and diagnosis of ADHD (9 items); and treatment of ADHD (12 items). Questions can be answered with "true", "false" and "don't know" responses (Scituito & Feldhamer, 2005).

In previous studies with US samples, the internal consistency of the overall KADDS score ranged from Cr. $\alpha = 0.82$ to 0.89 (Herbert et al., 2004; Scituito et al., 2004).

Studies using the KADDS scale have shown that teachers' knowledge of ADHD ranges from low to moderate, and all studies have presented their findings in support of increasing teachers' knowledge of ADHD (Al-Moghamhsi et al., 2018; Alshammari, 2020; Cueli et al., 2022; Galanis et al., 2021; Lee et al., 2020; Scituito et al., 2016).

1.3 Parental Involvement and Participatory Approaches in ADHD and Inclusive Education

The intersection of the United Nations Convention on the Rights of Persons with Disabilities (UN, 2006) and the neurodiversity paradigm has prompted a shift toward inclusive, participatory research that honours lived experience and embodies the principle "Nothing About Us Without Us" (Singer, 2017; Katona & Sándor, 2019; Sonuga-Barke et al., 2023). Contemporary models such as RE-STAR embed autistic and ADHD-identified youth as co-researchers, enhancing both validity and ethical equity (Brown A.I. et al., 2024; Sonuga-Barke & Thapar, 2021; Kakoulidou et al., 2024).

Parental engagement remains essential in inclusive education, underpinning school transformation efforts to respond to diverse learner needs (Booth & Ainscow, 2002; Berger, 2006). Yet systemic impediments—such as funding shortages, inadequate teacher training, and unclear policy—impede effective inclusion (Doyle & Giangreco, 2013). Recent findings reinforce these barriers: educators often lack



confidence and necessary resources to support neurodivergent students effectively (Doyle & Giangreco, 2013;).

Emerging evidence affirms that proactive parental involvement improves educational engagement and inclusion outcomes. A novel motor-science curriculum tailored for students with ADHD demonstrated significant gains in school inclusion and engagement metrics (Tafari & Di Palma, 2025). Additionally, participatory, co-designed educational interventions—whether physical-activity or game-based—yield higher engagement and social-emotional benefits among neurodivergent learners (Piedade et al., 2024).

Nonetheless, socio-demographic inequities affect who can participate. Parental capacity to engage varies by socio-economic status, gender, and previous schooling experiences (Reay, 2004; Blackmore & Hutchinson, 2010). Parent confidence also moderates remote learning effectiveness among ADHD learners (Becker et al., 2020), and systematic reviews indicate that parent self-efficacy and structured support positively influence outcomes (Musabelliu, 2020). Moreover, research highlights how educational involvement often adds to the already substantial invisible labor performed by mothers (Reay, 2004).

Therefore, rather than assuming universal parental capacity, inclusive strategies must actively support all families, provide flexible engagement routes, and avoid adding undue burden. Embedded participatory practices—such as advisory boards, co-design teams, or plain-language resources—can enhance both research relevance and practical inclusion (Fletcher-Watson et al., 2021; Brown N. et al., 2024).

II. METHOD

II.1 Samples and tools

A total of 158 teachers in primary schools completed the questionnaire. Age range taught: 6-15 years. The average age of the teachers who completed the questionnaire was 45.2 years and the average number of years in the profession was 17.8 years. 156 women and 2 men completed the questionnaires.

Background questionnaire. The background questionnaire includes some demographic questions (age, number of years in teaching profession, type of workplace), questions about previous experience with children diagnosed with ADHD (teaching experience and immediate circle of acquaintances) and questions about participation in ADHD-related training.

KADDS. Prior to the current study, the questionnaire was translated, the translation was checked and the reliability of the Hungarian version of the scale was assessed on a sample of 400 respondents. Our data show that the scale measures reliably in terms of overall score. On this sample of 400 respondents, the reliability of the questionnaire is Cronbach's $\alpha = 0.742$, which is a good value for a questionnaire measuring declarative knowledge considering the sample size and the three subscales. Reliability indicators for the three subscales: general information about the nature, causes and prognosis of ADHD (henceforth "G" subscale): Cronbach's $\alpha = 0.554$; symptoms, diagnosis of ADHD (henceforth "S" subscale): Cronbach's



$\alpha = 0.442$; and treatment of ADHD (henceforth “T” subscale): Cronbach’s $\alpha = 0.563$ (Szigethi, 2024).

II.2 Research history

In our present sample, as shown in Table 1 below the mean number of correct answers (KADDS total score) on the 36-item KADDS questionnaire is 22.5 points, with a standard deviation of 4.7 points. The mean value of the percentage of correct answers (KADDS total score expressed as a percentage) is 62.5%, with a standard deviation of 12.9%. According to the KADDS Manual (Sciutto, 2005), the percentage of correct answers is considered as the level of knowledge measured by the KADDS questionnaire.

The proportion of correct answers on the three subscales of the KADDS questionnaire also represents the level of knowledge for each subscale.

TABLE 1. MEAN AND STANDARD DEVIATION OF KADDS QUESTIONNAIRE AND SUBSCALE KNOWLEDGE LEVELS IN THE PRESENT SAMPLE

	Subscale	Mean (%)	Standard deviation (%p)
G (15 items)	General information about the nature, causes and prognosis of ADHD	58,2	15,6
S (9 items)	Symptoms and diagnosis of ADHD	78,6	15,7
T (12 items)	Treatment of ADHD	56,2	17,2
KADDS questionnaire		62,5	12,9

In the correlation analyses, the striking result was that two of the background variables examined had a significant effect on knowledge levels, one being the presence or amount of ADHD knowledge training. Those who had attended training scored significantly higher on the KADDS questionnaire compared to those who had not. The difference between the two groups on the KADDS total questionnaire is more than 10% (“Did not attend training”: 55.9%; “Did attend training”: 67.3%). Cohen’s d value = 0.97.9, which means that there is a very strong difference between the two mean values. This strongly supports the importance of formal training in enhancing educators’ understanding of ADHD.

Our interesting finding is that the short training sessions of a few hours did not seem to have any effect on ADHD knowledge in our sample.

The other background variable that was found to be important was whether the teacher’s close environment or family included a person diagnosed with ADHD. Due to the lengthy wording of the question, this will be referred to as “personal experience” and is understood as the variable describing the “Yes” or “No” response to the question described above. Within the sample, we will refer to those who answered “Yes” as “has personal experience”, PE1 for short, and to the sub-sample of those who answered “No” as “Doesn’t have personal experience”, PE0 for short.



II.3 Reliability of the measuring instrument

The reliability of the whole sample ($n=158$) is Cronbach's $\alpha = 0.75$. The reliability of the PE1 sample is Cronbach's $\alpha = 0.61$, the reliability of the K0 sample is Cronbach's $\alpha = 0.77$.

This means that the “doesn't have personal experience” sample is a more reliable measure of knowledge about ADHD questionnaire. There may be several reasons for this that are worth investigating. The number of items in the PE1 subsample is 56, which is almost half the number of items in the PE0 subsample, which is 102. This in itself may cause a difference in reliability. But in addition, it is worth examining whether the same items measure exceptionally well and poorly for the two subsamples.

In the following, we look at the question of which items might cause the difference between the reliabilities of the two subsamples. To do this, we examine the correlation of the item with the total score, the item reliability, and the item solution level for the three strongest items in the PE0 subsample separately for the two subsamples (Table 2). For the PE0 sample, the highest correlation with the total score is obtained for items Q18, Q12, Q17, and the item dropout reliability is the lowest for these items, which means that if the items were dropped, the Cronbach's α value of the measure would fall back to this level for the given subsample. The item's resolution level is interesting because it provides a measure of whether an item is too easy or too difficult, and therefore loses its measurement power.

TABLE 2. ANALYSIS OF THE THREE STRONGEST ITEMS IN THE PE0 SAMPLE FOR THE SUBSAMPLES “HAS PERSONAL EXPERIENCE” (PE1) AND “DOESN'T HAVE PERSONAL EXPERIENCE” (PE0) (CORRELATION VALUES MARKED WITH * ARE SIGNIFICANT AT THE $p < 0.001$ LEVEL.)

PE0 sample			PE1 sample		
Correlation item & KADDS	Item-omission reliability	Resolution level (%)	Correlation item & KADDS	Item-omission reliability	Resolution level (%)
Q18: Individual psychotherapy is usually sufficient for the treatment of most ADHD children. (F)¹					
0,602*	0,751	65,7	0,216	0,610	78,6
Q12: When treatment of an ADHD child is terminated, it is rare for the child's symptoms to return. (F)					
0,586*	0,752	72,6	0,508*	0,580	83,9
Q17: Symptoms of depression are found more frequently in ADHD children than in non-ADHD children. (T)					
0,491*	0,757	51,0	0,239	0,609	73,2

For the PE0 subsample, the question Q18 (“Individual psychotherapy is usually sufficient for the treatment of most ADHD children.” (F)) measures the best, with the highest correlation ($r=0.602$; $p<0.001$) with the total score of the questionnaire. An interesting finding is that this is not the case for the PE1 subsample, with item Q18 being one of the markedly weaker items, ranking 25th in the correlation strength list.

¹ The brackets indicate the truth value of the statement. F = false, T = true.

Looking at the PE0 subsample, the second strongest item, item Q12 (“When treatment of an ADHD child is terminated, it is rare for the child’s symptoms to return.” (F)) scores highly on both subsamples, and is ranked first on the strength list for the PE0 subsample, because item Q12 has the strongest correlation ($r=0.508$; $p<0.001$) with the total score on the PE1 subsample.

The third strongest item in the PE0 subsample, Q17 (“Symptoms of depression are found more frequently in ADHD children than in non-ADHD children.” (T)) has a correlation of 0.491 ($p<0.001$) with the total score. This item does not score well in the PE1 subsample, ranking 23rd in the last third of the strength list. In this case, the difference between the solution levels may be the underlying cause: for the PE0 subsample, only one in two respondents could give a correct answer, while for the PE1 subsample the proportion of respondents giving a correct answer is significantly higher, at 73.2 percent. For this variable, the difference between the solution levels is significant ($F=27.462$, $p<0.001$, $t=2.861$, $p=0.005$), i.e. it is not due to chance.

Although there is a significant difference between the two subsamples in the resolution levels of questions Q18 and Q12, the two-sample t-test used did not show a significant difference.

III. Results

3.1 The level of knowledge measured by the KADDS questionnaire and the subscales in the light of personal experience

For both the KADDS knowledge level, “G” and “T” subscales, the result of the subsample PE0, i.e. “doesn’t have personal experience”, is significantly weaker than the result of the subsample PE1, i.e. “has personal experience”, according to the two-sample t-test (KADDS: $F=4.071$, $p=0.045$, $t=-3.713$, $p<0.001$; “G”: $F=2.619$, $P=0.108$, $t=-3.536$, $p=0.001$; “T”: $F=1.207$, $p=0.274$, $t=-2.777$, $P=0.006$). Mean values calculated for subsamples are reported in Figure 1. Thus, those with children or adults diagnosed with ADHD in their immediate environment have significantly higher levels of ADHD-related knowledge, as measured by the KADDS scale, than those without a person affected in their immediate environment.

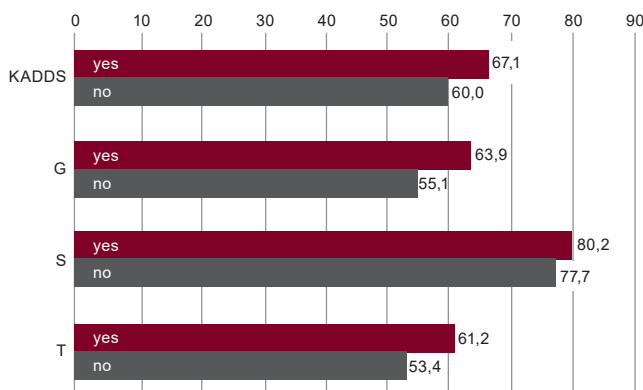


FIGURE 1. MEAN SCORES FOR KADDS AND SUBSCALES ACCORDING TO WHETHER THE TEACHER HAS PERSONAL EXPERIENCES (PE1) OR NOT (PE0)

3.2 The knowledge items that show the largest difference between the two subsamples of personal experience

In the following, we examine which questionnaire items show significant differences in knowledge levels between the two subsamples based on personal experience with ADHD. The resolution level indicates the percentage of respondents who answered each item correctly. Out of the 36 items in the KADDS questionnaire, 10 showed a significant difference in resolution levels between the subsamples with (PE1) and without (PE0) personal experience. Table 3 presents these items, ranked by the degree of difference in resolution levels.

TABLE 3. COMPLETION LEVEL PER ITEM IN SUBSAMPLES PE0 AND PE1
(CASES WITH SIGNIFICANT DIFFERENCE)

Number and subscale of item		Content (and truth value: T/F)	Resolution level (%)	
			PE0	PE1
Q17	G	Symptoms of depression are found more frequently in ADHD children than in non-ADHD children. (T)	51,0	73,2
Q32	G	The majority of ADHD children evidence some degree of poor school performance in the elementary school years. (T)	54,9	76,8
Q29	G	In school age children the prevalence of ADHD in males and females is equivalent. (F)	56,9	76,8
Q31	G	Children with ADHD are more distinguishable from normal children in a classroom setting than in a free play situation. (T)	55,9	75,0
Q30	G	In very young children (less than 4 years old), the problem behaviors of ADHD children (e.g. hyperactivity, inattention) are distinctly different from age-appropriate behaviors of non-ADHD children. (F)	35,3	53,6
Q23	T	Reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD.) (F)	10,8	28,6
Q15	T	Side effects of stimulant drugs used for treatment of ADHD may include mild insomnia and appetite reduction. (T)	65,7	80,4
Q19	G	Most ADHD children "outgrow" their symptoms by the onset of puberty and subsequently function normally in adulthood. (F)	79,4	91,1
Q36	T	Treatments for ADHD which focus primarily on punishment have been found to be the most effective in reducing the symptoms of ADHD. (F)	87,3	98,2
Q22	G	If an ADHD child is able to demonstrate sustained attention to video games or TV for over an hour, that child is also able to sustain attention for at least an hour of class or homework. (F)	92,2	100,0



3.3 Aggregate percentage of incorrect answers for the full questionnaire for subsamples PE0 and PE1

The number of wrong answers to the full questionnaire is examined first, as shown in Table 4 below. If we average the number of incorrect answers given by each teacher within one subsample PE0 and the other subsample PE1, we see that there is no significant difference in the average values measured for the two subsamples. Teachers in subsample PE0 gave an average of 6.8 incorrect answers to the 36 questions, while those in subsample PE1 gave an average of 6.9 incorrect answers.

The percentage of wrong answers for each item is defined as the number of teachers out of 158 respondents who gave a wrong answer for a specific item, i.e. who gave a wrong answer for a true statement or a true answer for a false statement.

TABLE 4. PERCENTAGE OF INCORRECT RESPONSES PER ITEM IN SUBSAMPLES PE0 AND PE1 (CASES WITH SIGNIFICANT DIFFERENCE)

Number and subscale of item		Content (and truth value: T/F)	Rate of incorrect answers (%)	
			PE0	PE1
Q23	T	Reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD. (F)	67,6	46,4
Q14	S	ADHD children often have a history of stealing or destroying other people's things. (F)	31,4	51,8
Q32*	G	The majority of ADHD children evidence some degree of poor school performance in the elementary school years. (T)	29,4	17,9

*No significant difference between the two subsamples.

3.4 Aggregate percentage of “don’t know” responses for the full questionnaire for subsamples PE0 and PE1

The analysis of the “I don’t know” responses provides an opportunity to isolate those knowledge items where teachers do not have misconceptions but where there is a clear lack of knowledge.

The difference in the marking of the “I don’t know” answer and the difference in this behaviour between the two subsamples is first examined by the number of times during the test completion that a teacher from one subsample and a teacher from the other subsample gave an “I don’t know” answer. In the PE0 subsample, an average of 7.6 questions were marked “don’t know”, while in the PE1 subsample, respondents marked “don’t know” less frequently, with an average of only 5.0 questions. This difference is significant according to the two-sample t-test ($F= 8.3243$, $p=0.004$; $t=3.265$, $p=0.001$).

Percentage of “I don’t know” responses to items

Next, we look at the items where there were the largest differences between the two subsamples in the proportion of “don’t know” responses, as shown in Table 5 below.

TABLE 5. PROPORTION OF "I DON'T KNOW" RESPONSES PER ITEM IN SUBSAMPLES PE0 AND PE1 (CASES WITH SIGNIFICANT DIFFERENCES)

Number and subscale of item		Content (and truth value: T/F)	Rate of "I don't know" answers (%)	
			PE0	PE1
Q29	G	In school age children the prevalence of ADHD in males and females is equivalent. (F)	35,3	8,9
Q17	G	Symptoms of depression are found more frequently in ADHD children than in non-ADHD children. (T)	40,2	19,6
Q18		Individual psychotherapy is usually sufficient for the treatment of most ADHD children. (F)	29,4	10,7
Q21	S	In order to be diagnosed as ADHD, a child must exhibit relevant symptoms in two or more settings (e.g., home, school). (T)	21,6	5,4
Q31	G	Children with ADHD are more distinguishable from normal children in a classroom setting than in a free play situation. (T)	18,6	3,6
Q30*	G	In very young children (less than 4 years old), the problem behaviors of ADHD children (e.g. hyperactivity, inattention) are distinctly different from age-appropriate behaviors of non-ADHD children. (F)	30,4	17,9
Q12*	T	When treatment of an ADHD child is terminated, it is rare for the child's symptoms to return. (F)	26,5	14,3
Q36	T	Treatments for ADHD which focus primarily on punishment have been found to be the most effective in reducing the symptoms of ADHD. (F)	12,7	1,8
Q32	G	The majority of ADHD children evidence some degree of poor school performance in the elementary school years. (T)	15,7	5,4
Q19	G	Most ADHD children "outgrow" their symptoms by the onset of puberty and subsequently function normally in adulthood. (F)	14,7	5,4
Q02	T	Current research suggests that ADHD is largely the result of ineffective parenting skills. (F)	5,9	0,0
Q22	G	If an ADHD child is able to demonstrate sustained attention to video games or TV for over an hour, that child is also able to sustain attention for at least an hour of class or homework. (F)	4,9	0,0

IV. Discussion

Our first and most important finding is that those who have a family member or friend diagnosed with ADHD possess significantly greater ADHD-related knowledge, as measured by the KADDS scale, than those without such a connection. This finding aligns with Scitutto et al. (2016), who conducted a similar study across nine countries using the KADDS scale and observed the same trend. Due to this close relationship, they likely have relevant knowledge about symptoms, diagnosis and treatment.

Previous studies have also shown a correlation between knowledge of ADHD and direct contact with children with ADHD, in that knowledge of ADHD was higher among teachers who had taught children with ADHD (Kos et al., 2004; Sciotto et al., 2000).

Although teacher training in special education plays a role, Flavian & Uziely's study (2022) found that personal familiarity with ADHD—such as having ADHD oneself or knowing someone with ADHD—had a stronger and more positive influence on teachers' attitudes toward including ADHD students than formal education did. The authors argue that incorporating direct, meaningful interactions with individuals who have ADHD into teacher preparation programs may be a more effective strategy for fostering positive inclusion practices than theory-only approaches (Flavian & Uziely, 2022).

In our research, the biggest difference between the two subscales was in subscale G (general information about the nature, causes and prognosis of ADHD). Among the questions with a significant difference in their level of resolution, 7 belonged to this subscale. Next comes subscale T (treatment of ADHD). 3 of the questions with a significant difference in their level of resolution belong to this subscale. The smallest difference between the two subscales was for subscale S (symptoms, diagnosis of ADHD). In the items belonging to this subscale, we did not find any question that showed a significant difference in the level of resolution between the two groups.

This is presumably because, while symptoms are readily apparent to teachers, general information about ADHD and how to treat it requires more in-depth knowledge. This is more likely to be the case for those who have a personal, family or friendship relationship with a person with ADHD.

This carries with it the risk that those with whom children spend most of their day may have no or incorrect information about ADHD and how to treat it.

One such misconception about treatment is the issue of sugar intake. The item on this ("Reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD.") is a false statement. Here again, there is a significant difference in the proportion of incorrect responses between the two subsamples. 46.4% of teachers with personal involvement also gave incorrect answers, but the rate for teachers without personal involvement was 67.6%. This is, moreover, one of the most common misconceptions about ADHD according to previous research (Ghanizadeh et al., 2006; Perold et al., 2010; Sciotto et al., 2000; West et al., 2005).

The other misconception that shows a significant difference between the two subsamples is that it is common for children with ADHD to engage in stealing or destroying other people's things. This is a false statement, and it also highlights that there are many negative preconceptions about children diagnosed with ADHD. Such beliefs, as mechanisms of social injustice, significantly influence teachers' tendency to stigmatise students with ADHD, as well as the development of prejudices and discriminatory behaviour, which hinder effective inclusive education (Vukelić & Vlah, 2024).

Teachers who have personal experience know better that the majority of children with ADHD show poorer academic performance during the primary school years. Several studies show that children diagnosed with ADHD may have difficulties in their academic performance (May et al., 2021; Tamm et al., 2020). In fact, up to 30% of

children with ADHD perform worse in school than would be expected based on their age and intellectual ability (Thorell, 2007). If teachers are not aware of this, they may attribute poorer intellectual ability to children based on learning difficulties and may not provide them with the appropriate support.

When analysing the 'I don't know' responses, it is clear that teachers who are not contextually relevant have knowledge deficits in significantly more areas. Out of the items showing a significant difference, 7 belong to the "general information" subscale and 3 to the "treatment" subscale. Only one item belongs to the "symptoms" subscale. This shows that teachers who have a family member or friend diagnosed with ADHD have a deeper knowledge.

V. Conclusion

Teachers who have a family member or friend diagnosed with ADHD have significantly more knowledge about ADHD. This is particularly true for ADHD treatment and general information about ADHD, and less about ADHD symptoms. This may mean that teachers who are in a good position to recognise the symptoms of ADHD and support affected children are not familiar with the right methods. This reduces the success of inclusive education.

For the same reason, it would be worthwhile to involve family members of children with ADHD in the design of inclusive educational environments and in the discourse and even research processes on this issue.

VI. Limitations

Our research has several limitations. Our sampling procedure was non-representative; therefore, the generalisability of our findings is limited. Teachers' knowledge of ADHD is shaped by numerous factors, of which we examined only a subset in the present study.

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