

# School attendance problems in adolescents with ADHD

Sofia Niemi, 1802221

Masters Thesis in Psychology

Supervisor: Katarina Alanko

Faculty of Arts, Psychology and Theology

Åbo Akademi University, 2022

# SCHOOL ATTENDANCE PROBLEMS IN ADOLESCENTS WITH ADHD

## ÅBO AKADEMI – FACULTY OF ARTS; PSYCHOLOGY AND THEOLOGY

Summary of Master's thesis

<b>Subject:</b> Psychology	
<b>Author:</b> Sofia Niemi	
<b>Title:</b> School attendance problems in adolescent with ADHD	
<b>Supervisors:</b> Katarina Alanko (Åbo Akademi)	
<b>Abstract:</b> There are various reasons for children to stay at home from school, and studies has shown a connection between having a neuropsychiatric diagnosis, such as attention deficit hyperactivity disorder (ADHD) and school absenteeism. The aim of the present study was to investigate school attendance problems (SAP) and the reasons for them, as reported by adolescents with ADHD and neurotypical adolescents. The current study ( $N = 1569$ ) was a part of the <i>School absence in Finland</i> -project. The measure for this study is The Inventory of School Attendance Problems (ISAP). The ISAP questionnaire contains both a symptom scale (ISAP S) that shows how much of the symptom is present and a function scale (ISAP F) that shows if and how the symptoms impact school attendance. A multivariate analysis was made to analyze the results and to control background variables. The results show that adolescents with ADHD had been more absent from school compared to neurotypical adolescents during the prior 12-weeks. Adolescents with ADHD showed also significantly more symptoms (agoraphobia/panic, problems within the family and problems with parents) than neurotypical peers and more of the symptoms (separation anxiety, agoraphobia/panic, aggression, problems within the family and problems with parents) led more often to SAP. The results are in accordance with our initial hypotheses and previous studies. Because of the low response rate on the ISAP F scale, the results regarding reasons for SAPs should be interpreted with caution. Future research could examine which protective actions could be used to prevent SAPs in adolescents with ADHD.	
<b>Keywords:</b> school attendance problems, ADHD, neurotypical, neuroatypical, school absenteeism, adolescents	
<b>Date:</b> 1.6.2022	<b>Number of pages:</b> 34

ÅBO AKADEMI – FAKULTETEN FÖR HUMANIORA, PSYKOLOGI OCH  
TEOLOGI

Abstrakt för avhandling Pro Gradu

<b>Subject:</b> Psykologi	
<b>Författare:</b> Sofia Niemi	
<b>Titel:</b> Problem med skolnärvaro bland ungdomar med ADHD	
<b>Handledare:</b> Katarina Alanko (Åbo Akademi)	
<b>Abstrakt:</b> Det finns flera anledningar till att ett barn stannar hemma från skolan och studier har visat att det finns ett samband mellan att ha en neuropsykiatrisk diagnos, såsom ADHD och skolfrånvaro. Syftet med denna studie var att undersöka närvaroproblem i skolan och orsakerna till dem bland ungdomar med ADHD och neurotypiska ungdomar. Den aktuella studien (N = 1569) var en del av projektet <i>Skolfrånvaro i Finland</i> . Måttet för denna studie var The Inventory of School Attendance Problems (ISAP). ISAP-frågeformuläret har både en symtomskala (ISAP S) som visar hur mycket av symtomen som finns och en funktionsskala (ISAP F) som visar om och hur symtomen påverkar skolgången. En multivariat analys gjordes för att analysera resultaten och för att kontrollera för bakgrundsvariabler. Resultaten visade att ungdomar med ADHD hade varit mer frånvarande från skolan jämfört med neurotypiska ungdomar under de senaste 12 veckorna. Ungdomar med ADHD visade också signifikant fler symtom (agorafobi/panik, problem inom familjen och problem med föräldrar) än neurotypiska jämnåriga och fler av symtomen (separationsångest, agorafobi/panik, aggression, problem inom familjen och problem med föräldrar) ledde till oftare till närvaroproblem. Resultaten överensstämmer med våra initiala hypoteser och med tidigare studier. På grund av den låga svarsfrekvensen på ISAP F-skalan bör resultaten gällande orsaker till närvaroproblem tolkas med försiktighet. Framtida forskning skulle kunna undersöka vilka skyddsåtgärder som skulle kunna användas för att förhindra problem med skolnärvaro hos ungdomar med ADHD.	
<b>Nyckelord:</b> problem med skolnärvaro, ADHD, neurotypisk, neuroatypisk, skolfrånvaro, ungdomar	
<b>Datum:</b> 1.6.2022	<b>Sidoantal:</b> 34

# SCHOOL ATTENDANCE PROBLEMS IN ADOLESCENTS WITH ADHD

## Table of Contents

Introduction .....	1
Aims of the study .....	4
Method .....	4
Procedure.....	4
Sample.....	5
Measures.....	6
The Inventory of School Attendance Problems (ISAP).....	6
Data analysis .....	6
Results .....	9
Independent samples T test .....	10
Multivariate analyses.....	13
Discussion .....	17
Strengths and limitations .....	19
Conclusions .....	20
Swedish summary/ Svensk sammanfattning .....	21
Introduktion.....	21
Syfte .....	23
Resultat.....	25
Diskussion .....	26
References .....	29

# SCHOOL ATTENDANCE PROBLEMS IN ADOLESCENTS WITH ADHD

## **Acknowledgments**

In Turku, June 2022,

I would like to thank my supervisor docent Katarina Alanko for giving me feedback throughout my writing process. I would also thank Martin Lagerström for helping me with the statistical analyses. Furthermore, I would like to thank my brother-in-law Joacim Mäkinen for helping me with language and grammar. I also want to thank my friends Louise Hellström and Iida Lillsved for peer support. At last, I would like to thank my family and fiancé for supporting me throughout both my writing process and my psychology studies.

Thank you!

## **Introduction**

The aim of the present study was to investigate school attendance problems (SAP) and the reasons for them, as reported by adolescents with ADHD. In the current study, the term SAPs will be used to cover problems also in the initial stages of the spectrum of problem severity, such as refusing or avoiding going to school, and not just school absenteeism. SAPs cover all kinds of school absence, both with and without permission from parents and/or school.

### **Types and risk factors for school attendance problems**

SAPs can be measured in diverse ways. The cutoff for problematic school absenteeism can vary depending on the country, for example in the UK, school absenteeism is considered to become problematic when the young person has missed 10% of school time (Department of Education, 2019). Kearney (2008), however, has suggested that problematic school absenteeism among youths could be defined as when a person who has, either missed a minimum of 25% of time in school or had a challenging time attending school at least for 14 days which, in turn, has affected the family's everyday life negatively. The third criterion is that the person has been absent at least 15% of the time during a 15-week period.

According to a recent study by Määttä et al. (2020), the prevalence of problematic school absenteeism in Finland among youth in secondary school is estimated to be around 4%. Special arrangements have been organized for 2-3% of the students, for them to be enabled to attend school. The estimation was made by the school staff and according to the study, school absenteeism has increased in Finland in recent years.

School absenteeism is known to have negative consequences, and it can affect children both academically (Gottfried, 2009, 2014) and socially (Gottfried, 2014). School absenteeism is known to also have a connection with negative consequences later in life, including economic struggles as a young adult (Ansari et al. 2020) and unemployment (Attwood & Croll, 2006, 2014). Studies have also shown that children who have a higher level of school absenteeism during their first years in school also have it later in life, meaning that the pattern of school absenteeism may be established early (Ansari & Pianta, 2019). In addition, the total number of years in school might be fewer for children with high absence rates as for other children their age, because studies have also shown that the children who have a higher degree of school absenteeism also have a higher dropout rate compared to others (Cabus & de Witte, 2014).

There are many reasons for children being absent from school. Health-related problems (Havik et al. 2014) and lack of good relationships with other students at school (Havik et al., 2015) are common reasons for school absenteeism. Previous studies have also shown a connection between having a neuropsychiatric diagnosis, such as autism spectrum disorder (Munkhaugen et al., 2017) and/or attention deficit hyperactivity disorder (ADHD) (Fleming et al., 2017; Kent et al., 2010; May et al., 2020), and school absenteeism. There are also other risk factors, which increase the likelihood for SAPs or school absenteeism. Research shows that the risk of school absenteeism increases if a child experiences abuse, lack of care, or other kinds of problematic home conditions (Marlow & Rehman, 2021), if they come from low socioeconomic homes (Balkis et al., 2016), or suffer from mental health problems (Egger et al., 2003). Also externalizing behavior, such as hyperactivity, inattention, and conduct problems, is shown to be predicting factors for school absenteeism (Ingul et al., 2011).

### **Attention deficit hyperactivity disorder**

Attention deficit hyperactivity disorder, or ADHD, is classified as a neuroatypicality. ADHD is a disorder that is characterized by inattention and hyperactivity-impulsivity or either of them (American Psychiatric Association, 2013). To be diagnosed with ADHD the symptoms must have been present in at least two environments, for example, at school and at home (American Psychiatric Association, 2013). Signs that are common in people with ADHD are, for example, negligence at school, inability to focus on a specific thing, speaking much more than others and a habit of interrupting others (American Psychiatric Association, 2013). The prevalence of ADHD is globally 5.29% (Polanczyk et al. 2007). ADHD is more commonly found among males than among females (American Psychiatric Association, 2013).

Comorbidities are common among children with ADHD and it is, in fact, more common than uncommon to have another diagnosis or other symptoms as well when having an ADHD diagnosis (Biederman, Newcorn & Sprich, 1991; Kadesjo & Gillberg, 2011; Yuce et al., 2013). Studies have shown that children with ADHD can have higher levels of social anxiety (Schmitz et al., 2010; Chavira et al., 2004), separation anxiety (Biederman et al., 1996), depression (Meinzer, Pettit & Viswesvaran, 2014), agoraphobia/panic (Biederman et al., 1996; Biederman et al., 1997), somatic complaints (Kutuk et al., 2018), and aggression (Murray et al., 2021). It has also been shown that it is common among youth with attention problems to also have problems with peers (Barnow et al., 2006).

### **ADHD and school-related problems**

Studies have shown that children with ADHD are more absent from school compared to other children (Fleming et al., 2017; Kent et al., 2010; May et al., 2020). In addition to school absenteeism, children with ADHD have also been shown to have other kinds of school-related difficulties, for instance, low academic achievements (Fleming et al., 2017; May et al., 2020) and learning disabilities (DuPaul, Gormley, & Laracy., 2012). Children with ADHD can also experience bullying more often, especially if they also have an autism spectrum disorder (ASD) diagnosis (McClemont et al., 2020). It is also shown that children with ADHD are more prone to quit school earlier than others, they are more likely to need special help in school, and they are more prone to having difficulties finding a job later in life, even when the diagnosis is treated with medication (Fleming et al., 2017). Studies have also shown that children with ADHD may have problems with emotion regulation (Graziano & Garcia, 2016). Martin et al. (2014) found that ADHD also predicted other school-related difficulties, such as failure to complete schoolwork and needing to switch schools or being suspended from school.

As mentioned before, it is common for children with ADHD to have comorbid disorders/symptoms (Biederman, Newcorn & Sprich, 1991; Kadesjo & Gillberg, 2011; Yuce et al., 2013). It is important to pay attention to the comorbidities when considering SAPs, because the ADHD diagnosis alone might not explain it. According to Classi et al. (2012), ADHD combined with another diagnosis can increase SAPs more than ADHD alone. The study showed that children with ADHD, who also had anxiety, depression, or phobias, were more prone to skip school for over 14 days compared to the children with ADHD only (Classi et al., 2012). This means that having ADHD and internalized problems can increase the risk of being absent from school more often. Another study done by Schiberras et al. (2014) found that children with two or more anxiety disorders in combination with ADHD had a higher degree of SAPs compared to children having ADHD and one anxiety disorder or having ADHD alone.

Having problems with peers is also common among youth with attention problems (Barnow et al., 2006), and having problems with peer relationships is also related to SAPs (Egger et al., 2003; Havik et al., 2015). As far as other relationships are concerned, children with ADHD may not have as close a relationship to their teachers as their peers (Ewe, 2019). Also, the relationship with their parents might not be as good as compared to neurotypical children. Studies have shown that youth with ADHD have more problematic conflicts with their parents (Edwards et al., 2001; Barkley et al., 1992). The conflicts are also more



aggressive, and they have a more negative tone compared to neurotypical children (Edwards et al., 2001; Barkley et al., 1992).

Concluding, prior research has highlighted several areas within education and school, which may be problematic for children and youth with ADHD. However, it is unclear, if and to what extent the difficulties contribute to SAPs. Let us illustrate this with a hypothetical example: a young person with ADHD, with a high degree of absence from school, reports about conflicts with peers and symptoms of anxiety. Very likely both difficulties contribute to the young person feeling stressed and down. However, it might be that the reason for not attending school relates only to feeling anxious in relation to test situations. In this example, the conflicts with peers might not be perceived as a reason not to attend school, as the young person might have other friends at school, with whom he/she likes spending time. Therefore, in addition to measuring symptoms of different difficulties related to school absenteeism, it is important to also measure whether a reported symptom is also the reason for not attending school.

### **Aims of the study**

The aim of this study was to investigate the differences between adolescents with ADHD and neurotypical adolescents regarding SAPs. The hypotheses of the current study are:

1. Adolescents with ADHD will show a higher level of school non-attendance compared to neurotypical adolescents.
2. Adolescents with ADHD will have a higher level of the symptoms that are common among adolescents with ADHD: social anxiety, separation anxiety, depression, agoraphobia/panic, somatic complaints, and aggression, and they will have an impact on their SAPs. Adolescents with ADHD will have more problems with peers and/or teachers and/or parents.
3. Adolescents with ADHD will report that increased symptoms in the areas described in hypothesis 2 will also have an impact on their SAPs. No a priori hypotheses about which symptoms relate more to SAPs were made, due to the lack of previous research addressing the question.

## **Method**

### **Procedure**

The current study was a part of the *School Absence in Finland* project. The project started with translating the instruments School Refusal Assessment Scale-Revised (SRAS-R)

(Kearney, 2002), the Inventory of School Attendance Problems (ISAP) (Knollmann et al., 2018) and the School Non-Attendance Checklist (SNACK) (Heyne et al., 2019) into Swedish, and SNACK into Finnish. The translated ISAP questionnaire was piloted with 15 adolescents. After feedback, some smaller changes were made. Two researchers designed the background variables and additional items. Only the ISAP questionnaire and background variables were used in the current study. Voluntary schools were recruited for the study, and they recruited participants among their pupils. The recruiting of voluntary schools started in January 2021. A starting seminar was organized in January 2021 for school personnel, including lectures and information about the study. In addition, schools were contacted through e-mail with information about the study. A total of 15 schools decided to participate in the study. The schools were located both in southern and western Finland. The data from the adolescents were collected in the school during the school day, in May 2021. Parents were contacted and informed via the school's e-mail. The parents were also asked to fill out an informed consent for their adolescent to participate in the study. The consent was collected and confirmed by the school staff at data collection. Personnel at schools participated in the data gathering process for students with a high level of school absence. They collected data in person, from both parents and the students, to also obtain data from absent students.

### **Ethical considerations**

The study was approved by the research ethics committee of Åbo Akademi University.

### **Sample**

The final sample with complete responses was 1569, consisting of 954 Swedish-speaking adolescents and 725 Finnish-speaking adolescents. Five hundred and sixty-eight responses were incomplete. The average age for the neurotypical adolescents ( $N = 1569$ ) was 14.9 ( $SD = .85$ ) and for the adolescents with ADHD ( $N = 95$ ) 15.0 ( $SD = 1.01$ ). The collected sample had  $N = 2137$  responses of which 568 were incomplete. Twenty-five participants were excluded, because they had reported an age lower than 11 or higher than 18. Four hundred and eighty participants were excluded, since they had not completed the part of the survey necessary for analyses or had more than 30% missing data. Forty-eight participants who reported "none of the above" on highest education level of a parent were excluded, since these values could not be multivariate imputed. Participants who had checked the box for Autism were excluded ( $N = 15$ ), to enable comparisons between [neuroatypical vs typical].

## Measures

### *The Inventory of School Attendance Problems (ISAP)*

The measure for this study was The Inventory of School Attendance Problems (ISAP) questionnaire (Knollmann et al., 2018). ISAP is a questionnaire that is used as a screening tool to find typical school attendance-linked problems. The questionnaire contains 13 factors that are measured by 48 questions. The 13 factors contain the following problems or symptoms: problems with teachers, peers and parents, family-related problems, disapproval of the school the adolescent is in, symptoms of depression, performance anxiety, somatic complaints, aggression, social anxiety, separation anxiety, panic/agoraphobia, and having other attractive alternatives/school aversion. SAPs can be determined widely by the questionnaire because of its ability to discover how symptoms are linked to school absenteeism, and how strong the symptoms are before and during the school day. The ISAP questionnaire contains both a symptom scale (ISAP S) and a function scale (ISAP F). The symptom scale shows how much of the symptom is present and the function scale shows if and how the symptoms impact school attendance. The questionnaire contains questions that are related to the symptoms and next to them are questions regarding the symptoms' impact on their school (non) attendance. Both questions are answered on a 4-point Likert scale (from never to most of the time). Also, the ISAP questionnaire measures how often an adolescent has been absent from school during the last 12 weeks, both with and without permission. The following questions are examples of questions that are included in the questionnaire: "I worry that I might embarrass myself", and "I am afraid to speak to other people or that others might speak to me" when measuring symptoms of social anxiety, and "I am afraid of exams", and "I worry about my school grades" when measuring symptoms of performance anxiety. Internal consistency of the scale is deemed to be adequate ( $0.75 \leq \alpha \leq 0.88$ , 3 testlets/scale). (Knollmann et al., 2018).

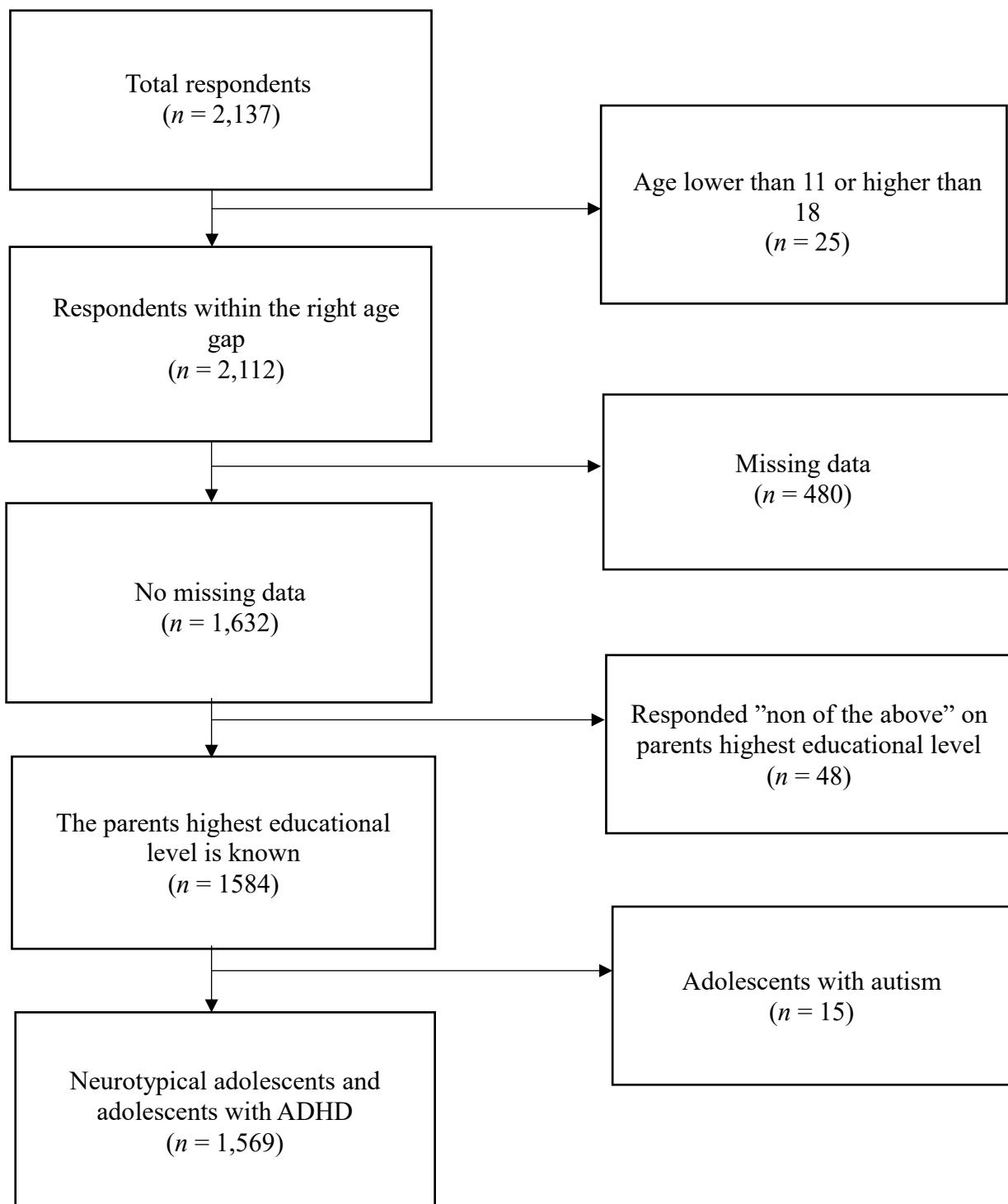
### Data analysis

All data preparation and analyses were performed in R version 4.0.2, utilizing R-Studio version 1.3. The R package *tidyverse* (Wickham et al., 2019) was used for data handling and plotting.

Final sample size for analyses was  $N = 1569$  for ISAP S and  $N = 890$  for ISAP F. Missing data was handled using the *mice* package (Van Buuren & Groothuis-Oudshoorn, 2011). In total, 889 (57%) participants had no missing data, 567 (36%) participants had missing data on one variable and 113 (7%) participants had missing data on 2-14 variables

out of 58. Of the participants, 608 (39%) had not replied to ISAP question 29 (“I am afraid of tests”). Due to the key nature of this ISAP variable for calculating the factor scores, the variable was multivariate imputed and included, despite the large number of missing values. The variable with the second most missing values was age, missing for 52 (3%) of participants. Missing values were imputed using polytomous logistic regression for highest education, gender and age and predictive mean matching for all other variables, to create a complete data set. For the [ISAP F] variables, only 890 complete answers could be obtained. These were analyzed separately from the sample described above.

Linear mixed effects models were used to compare [neuroatypical vs typical] on the thirteen factors of ISAP symptoms and functions, using the *lmerTest* package (Kuznetsova et al., 2017). [Living status, gender, other diagnoses, highest level of education for the parent and age] were included in all models, to account for variance explained by these background variables. The [school of the child] was included as a random intercept, to control for variations between schools. The variance of the random effect of school was negligible, ranging from 0.00 to 0.04 (intraclass correlation, ICC: 0.00 – 0.07) for [ISAP S] and 0.00 to 0.002 (ICC: 0.00 – 0.01) for [ISAP F]. Thus, no substantial differences between schools could be found.

**Figure 1**

*Figure 1.* The process for the exclusion of the sample. The squares on the right side indicates the participants that were excluded from our analyses and the reason for their exclusion. The squares on the left side indicates the total sample left after the exclusion. The total sample for the study was 1569.

## Results

Background variables are presented in Table 1. The questionnaire included questions on the participants' age, gender, who the participant was living with (with both parents, with only one of them, at both alternately, or at a residential childcare community) and the socioeconomical status of the family. The socioeconomical status factor was measured by the parents' highest educational level. The educational level was categorized into five separate groups, the highest being a university degree and the lowest to not have any type of degree after elementary school.

**Table 1**

*Descriptive data*

Group	Neurotypical adolescents		ADHD	
	<i>n</i>	%	<i>n</i>	%
Gender				
Boy	647	44	51	54
Girl	796	54	37	39
Other	31	2	7	7
Living arrangements				
Both parents	1143	76	53	56
One parent	129	9	22	23
Both parents alternately	186	13	17	18
Residential childcare community	8	0.5	2	2
Other	8	0.5	1	1
Parents educational level				
University	919	62	58	61
High school	515	35	32	34
Secondary school	40	3	5	5

*Note.* N = 1569 (neurotypical adolescents, *n* = 1474 and adolescents with ADHD, *n* = 95).

The average age for the neurotypical adolescents was 14.9 (*SD* = 0.850) and for the adolescents with ADHD was 15.0 (*SD* = 1.009)

### **Independent samples T test**

An independent samples T test was performed to obtain means and standard deviations for both groups on each ISAP factor, and to compare means between the groups for both symptoms (ISAP S) and reasons (ISAP F) for SAPs (see Table 2 and Table 3). The highest mean for both groups on the ISAP questionnaire measuring symptoms (ISAP S) was school aversion/having other attractive alternatives ( $M = 1.187$ ,  $SD = 0.791$  for the ADHD group and  $M = 0.950$ ,  $SD = 0.724$  for the neurotypical adolescents). The differences between adolescents with ADHD and neurotypical adolescents were significant on all the factors, except for the factor measuring performance anxiety.

The second part of the ISAP questionnaire measured if the symptom was the reason for the participants' SAPs (ISAP F). The highest mean for adolescents with ADHD was again school aversion/other attractive alternatives ( $M = 0.580$ ,  $SD = 0.77$ ), but the highest mean for the neurotypical group was somatic complaints ( $M = 0.418$ ,  $SD = 0.55$ ). The differences between groups were statistically significant on the factors measuring depression, agoraphobia/panic, school aversion/attractive alternatives, aggression, and problems within the family. The effect sizes for ISAP S and ISAP F were small to moderate.

**Table 2***Means, standard deviations and differences of the symptoms*

ISAP factor	Neurotypical		ADHD		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Depression	.63	.65	.91	.78	-3.54	<b>.001</b>	.40
Social anxiety	.50	.61	.69	.76	-2.38	<b>.019</b>	.27
Separation anxiety	.31	.46	.43	.54	-2.15	<b>.034</b>	.24
Performance anxiety	.95	.78	.96	.86	-0.18	.855	.02
Agoraphobia/Panic	.21	.43	.46	.62	-3.89	<b>.000</b>	.47
Somatic complaints	.57	.59	.78	.71	-2.75	<b>.007</b>	.31
School aversion/Attractive alternatives	.95	.72	1.19	.79	-3.08	<b>.002</b>	.31
Aggression	.64	.68	1.08	.87	-4.84	<b>.000</b>	.57
Problems with peers	.33	.52	.51	.60	-2.91	<b>.000</b>	.33
Problems with teachers	.38	.54	.55	.60	-2.45	<b>.016</b>	.28
Dislike of the specific school	.40	.64	.62	.79	-2.71	<b>.008</b>	.31
Problems within the family	.29	.57	.59	.81	-3.60	<b>.000</b>	.49
Problems with parents	.23	.490	.51	.78	-3.49	<b>.001</b>	.43

*Note.* *N* = 1569 (neurotypical adolescents, *n* = 1474 and adolescents with ADHD, *n* = 95). *M* = mean; *SD* = standard deviation.



**Table 3***Means, standard deviations and differences of the function of the factor for SAPs*

ISAP factor	Neurotypical		ADHD		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	M	SD	M	SD			
Depression	.27	.48	.48	.66	-2.16	<b>.035</b>	.37
Social anxiety	.18	.40	.34	.59	-1.83	.074	.32
Separation anxiety	.07	.25	.18	.43	-1.69	.098	.30
Performance anxiety	.24	.53	.36	.70	-1.12	.269	.19
Agoraphobia/Panic	.09	.28	.26	.51	-2.32	<b>.025</b>	.42
Somatic complaints	.42	.55	.56	.68	-1.41	.166	.23
School aversion/Attractive alternatives	.31	.57	.58	.77	-2.35	<b>.023</b>	.40
Aggression	.16	.39	.40	.67	-2.52	<b>.015</b>	.46
Problems with peers	.14	.36	.26	.56	-1.45	.154	.25
Problems with teachers	.15	.35	.28	.49	-1.81	.077	.31
Dislike of the specific school	.13	.38	.27	.60	-1.57	.124	.28
Problems within the family	.11	.38	.32	.63	-2.20	<b>.033</b>	.39
Problems with parents	.07	.27	.23	.64	-1.68	.100	.32

*Note.* N = 890 (neurotypical adolescents, *n* = 843 and adolescents with ADHD, *n* = 47).

Smaller sample due to the lower response rate.

### Multivariate analyses

Sixteen percent of the adolescents with ADHD had indicated that they had been absent from school at least 5-12 days during the last 12 weeks (equaling approximately 10% of school time), either with or without permission from parents and/or school. The corresponding percentage of neurotypical adolescents was 8%, meaning that the percentage of SAPs was twice as high among adolescents with ADHD. Results also show that the adolescents with ADHD had, compared to the neurotypical adolescents, a higher level of all the symptoms (ISAP S), except on the factor measuring performance anxiety (see Table 4). Adolescents with no neuroatypicalities had only slightly higher points on the performance anxiety factor. Although the adolescents with ADHD had a higher level of symptoms on most of the factors (see Table 4), the results were statistically significant on the factors measuring agoraphobia/panic ( $b = 0.16$ ;  $SE = 0.05$ ;  $p = .045$ ), aggression ( $b = 0.30$ ;  $SE = 0.07$ ;  $p < .001$ ), problems within the family ( $b = 0.16$ ;  $SE = 0.06$ ;  $p = 0.005$ ), and problems with parents ( $b = 0.20$ ;  $SE = 0.05$ ;  $p < .001$ ). In the multivariate analyses, living status, age, gender, other diagnoses, and the socioeconomical status were controlled for.

Adolescents with ADHD also had higher points on every ISAP factor that showed if the symptom was the reason for their SAPs (ISAP F) (see Table 5). In spite of higher points on every factor, the differences between adolescents with ADHD and the neurotypical adolescents were statistically significant only on the ISAP factors measuring separation anxiety ( $b = 0.09$ ,  $SE = 0.40$ ,  $p = 0.03$ ), agoraphobia/panic ( $b = 0.15$ ,  $SE = 0.05$ ,  $p = 0.002$ ), aggression ( $b = 0.2$ ,  $SE = 0.06$ ,  $p < .001$ ), problems within the family ( $b = 0.17$ ,  $SE = 0.06$ ,  $p = 0.004$ , and problems with parents ( $b = 0.14$ ,  $SE = 0.05$ ,  $p = 0.03$ ) ) as reasons for their SAPs.

**Table 4**

*Comparison of the symptoms (ISAP S) between adolescents with ADHD and neurotypical adolescents per ISAP Factor*

Response variable: ISAP Factor	<i>b</i>	<i>SE</i>	95% CI		<i>p</i>
			<i>LL</i>	<i>UL</i>	
Depression	.09	.06	-.03	.20	.15
Social anxiety	.05	.06	-.06	.18	.36
Separation anxiety	.05	.05	-.04	.16	.23
Performance anxiety	-.12	.08	-.27	.03	.12
Agoraphobia/Panic	.16	.05	.07	.25	<b>&lt;.001</b>
Somatic complaints	.06	.06	-.05	.17	.29
School aversion/Attractive alternatives	.12	.08	-.03	.27	.12
Aggression	.30	.07	.16	.44	<b>&lt;.001</b>
Problems with peers	.11	.05	.00	.21	.05
Problems with teachers	.08	.06	-.03	.20	.15
Dislike of the specific school	.12	.07	-.01	.25	.08
Problems within the family	.17	.06	.05	.28	<b>.005</b>
Problems with parents	.20	.05	.09	.30	<b>&lt;.001</b>

*Note.* N = 1569 (neurotypical adolescents, *n* = 1474 and adolescents with ADHD, *n* = 95). *LL* = lower limits; *UL* = upper limits, *b* = neurotypical (0) vs. ADHD (1). Living status, gender, other diagnoses, highest level of education for the parent and age were included in all models, to account for variance explained by these background variables.

**Table 5**

*Comparison of the reasons (ISAP F) for SAP between adolescents with ADHD and neurotypical adolescents per ISAP Factor*

Response variable: ISAP Factor	<i>b</i>	<i>SE</i>	95% CI		<i>p</i>
			<i>LL</i>	<i>UL</i>	
Depression	.12	.07	-.01	.25	.08
Social anxiety	.11	.06	-.01	.23	.08
Separation anxiety	.09	.04	.01	.16	<b>.03</b>
Performance anxiety	.06	.08	-.09	.22	.44
Agoraphobia/Panic	.15	.05	.06	.24	<b>.001</b>
Somatic complaints	.07	.08	-.08	.23	.37
School aversion/Attractive alternatives	.18	.09	.01	.35	<b>.04</b>
Aggression	.21	.06	.09	.33	<b>&lt;.001</b>
Problems with peers	.07	.06	-.04	.18	.19
Problems with teachers	.09	.05	-.02	.19	.10
Dislike of the specific school	.11	.06	-.01	.23	.07
Problems within the family	.17	.06	.05	.29	<b>.004</b>
Problems with parents	.14	.05	.05	.23	<b>.003</b>

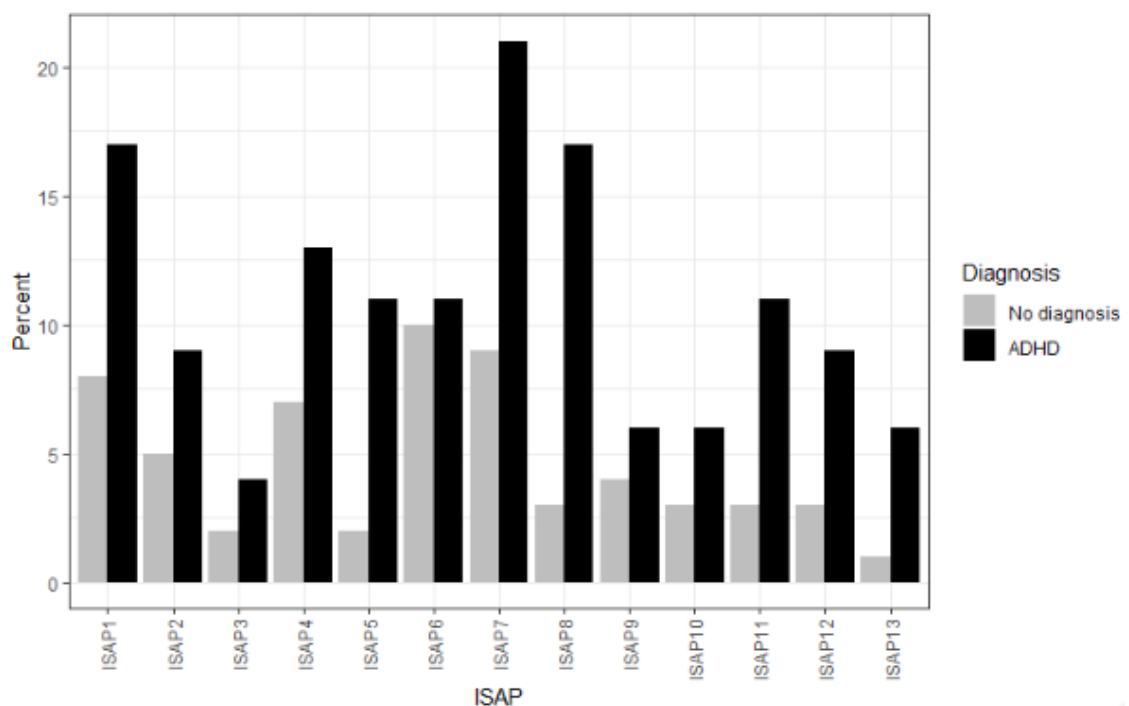
*Note.* N = 890 (neurotypical adolescents, *n* = 843 and adolescents with ADHD, *n* = 47). *LL* = lower limits; *UL* = upper limits, *b* = neurotypical (0) vs. ADHD (1). Smaller sample due to the lower response rate. Living status, gender, other diagnoses, highest level of education for the parent and age were included in all models, to account for variance explained by these background variables.

### Closer Examination of reasons for SAPs

To further disentangle the reasons for SAPs, we analyzed how many had reported scores implicating at least moderate impact of the factor on SAPs. This was done by exploring scores above 1 (i.e., quite often a reason) on the ISAP F scale, in both groups. Twenty-one percent of the ADHD group had answered more than 1 on the factor measuring school aversion/other attractive alternatives (ISAP 7) as the reason for their SAPs. The corresponding percentage for the neurotypical group was 9%. School aversion/other attractive alternatives was the most common reason for SAPs among adolescents with ADHD. The most common reason for SAPs for the group with neurotypical adolescents was somatic complaints (ISAP 6), with 10%. The corresponding percentage for the group with ADHD was 11%. The least influential factor for SAPs for adolescents with ADHD was separation anxiety (ISAP 3) with 4%, and the least influential factor for the neurotypical adolescents was problems with parents (ISAP 13) with 1%. The percentage of adolescents with ADHD was twice as large compared to neurotypical adolescents on most of the factors. All the factors are presented below (see Figure 2).

**Figure 2**

*Reasons for SAPs (ISAP F)*



*Note.* The ISAP Function factors. The reasons for SAPs in percentages for each group per each factor (in order from ISAP 1 to ISAP 13: depression, social anxiety, separation anxiety,

performance anxiety, agoraphobia/panic, somatic complaints, school aversion/attractive alternatives, aggression, problems with peers, problems with teachers, dislike of the specific school, problems within the family, problems with parents.)

### **Discussion**

The present study aimed to investigate the differences between adolescents with ADHD and neurotypical adolescents regarding SAPs. It was hypothesized that adolescents with ADHD would have a higher level of school absenteeism compared to neurotypical adolescents. It was also hypothesized that adolescents with ADHD would have a higher level of those common ADHD and SAPs-related symptoms, which were measured by the ISAP questionnaire. Furthermore, we expected that at least some of the symptoms would also have been the reason for their SAPs. Data was gathered with the ISAP questionnaire from a total of 1569 adolescents, aged 11 to 18 in different schools in Finland.

In accordance with our initial hypothesis and previous studies (Fleming et al., 2017; Kent et al., 2010; May et al., 2020), our results showed that a higher percentage of adolescents with ADHD were absent from school compared to the adolescents with no neuroatypicalities. The percentage of those absent at least 5-12 days during the prior 12 weeks (equaling approximately 10% of school time) was twice as large for adolescents with ADHD (16% for ADHD and 8% for neurotypical). Our way to measure school absenteeism differs from Kearney (2008), who suggested that problematic school absenteeism could be defined as when a person who has either missed a minimum of 25% of time in school or had a challenging time attending school at least for 14 days which, in turn, has affected the family's everyday life negatively. The third criterion was that the person has been absent at least 15% of the time during a 15-week period, which is 25% of the school day. Our period for measured school absenteeism was longer (12 weeks), and our limit for school absenteeism was also approximately 10% of the school time, which is the same as for Department of Education in the UK (2019).

The findings show that adolescents with ADHD had a higher level of almost all the symptoms on the ISAP questionnaire. The factors measuring agoraphobia/panic, aggression and problems with parents were statistically significantly higher, when controlling also for living status, age, gender, other diagnoses, and the socioeconomical status. Only the factor measuring performance anxiety was lower among adolescents with ADHD. The results are, therefore, in line with the hypothesis and in accordance with previous research showing that it is common among adolescents with ADHD to also have agoraphobia/panic (Biederman et

al., 1996; Biederman et al., 1997), aggression (Murray et al., 2021), and problems with parents (Edwards et al., 2001; Barkley et al., 1992). Even if the other factors did not reach statistical significance, it seems that adolescents with ADHD may struggle with difficulties in many areas, when comparing to neurotypical adolescents.

The adolescents with ADHD also showed higher points on every ISAP factor showing if the symptoms were the reason for their SAPs (ISAP F). The results were statistically significant on the factors measuring separation anxiety, agoraphobia/panic, school aversion/other attractive alternatives, aggression, problems within the family, and problems with parents. The significant results regarding separation anxiety were unexpected considering that children with ADHD have more problematic conflicts with their parents compared to neurotypical children (Barkley et al., 1992; Edwards et al., 2001) and that problems within the family (ISAP 12) and with parents (ISAP 13) were also significant. It could be speculated that adolescents with ADHD could have ambivalent feelings towards their parents or that the problems between the adolescents and their parents might bring up a fear of losing them.

The statistically significant results regarding agoraphobia/panic being the reason for their SAPs are not surprising considering the clinical picture of the problem. Agoraphobia is described as having a desire to avoid situations or places that one cannot easily escape (American Psychiatric Association, 2013). There might be fear of having a panic attack at a specific place (American Psychiatric Association, 2013) and, in this case, the place would be the school.

The statistically significant results regarding aggression could relate to how others react to the aggressive behavior. Aggressive behavior among adolescents with ADHD might elicit strong reactions among peers and/or teachers and the adolescent might feel rejected and different which, in turn, might affect the adolescents' desire to go to school. However, the factor measuring problems with peers and teachers were not significant, so the results should be interpreted with caution.

School aversion/other attractive alternatives could be linked to the adolescent's inability to concentrate (American Psychiatric Association, 2013) and/or not getting the support needed in school. The difficulty of concentrating might lead to the desire to do something more enjoyable outside the school. Unmet needs can make school days less fun and more difficult for adolescents with ADHD.

The results are in line with the hypothesis, that is, the symptoms that are common among adolescents with ADHD have an impact on their school attendance. The results also

support previous research about how ADHD alone might not explain the SAPs completely and that having comorbid symptoms can increase SAPs more than ADHD alone (Classi et al., 2012).

The results also showed that the most common reason for SAPs for the ADHD group was school aversion, (i.e., not being interested in school) or having other attractive alternatives at home or outside. As mentioned above, it could be speculated that the impaired ability to concentrate in school (American Psychiatric Association, 2013) could lead to the desire to do something more enjoyable. It could be speculated that better school support could result in fewer school attendance problems. The increased support could make school a more enjoyable place for the adolescent, and the adolescent would be less tempted to stay at home.

The most common reason for not attending school for the neurotypical group was somatic complaints. When comparing the percentages between the adolescents with ADHD and the neurotypical adolescents on the factors measuring if the symptoms were the reason for the participants' SAPs, it was found that adolescents with ADHD had an almost twice as large percentage on almost every factor compared to the neurotypical adolescents.

It is important to remember that adolescents might not fully understand their problems. Adolescents can have symptoms of depression or anxiety, but they might not know what they are feeling, or they have a hard time putting their feelings into words. Therefore, the self-evaluation of symptoms should be made multiple times or together with a close adult for an increased understanding of the symptoms and more describing results.

ADHD is associated with a variety of difficulties, and many of the difficulties included in this study were significant. The difficulties can potentially be a reason for SAPs among adolescents with ADHD.

### **Strengths and limitations**

The current study comes with certain strengths and limitations. The study had 1569 participants, and the relatively large sample size can be seen as a strength in the current study. However, the sample was not representative, which can be seen as a limitation. In addition, the ADHD group had only 95 participants, which might have led to the statistical power not being optimal, and some differences did not reach statistical significance. Another limitation is that all the participants did not answer all the questions in the questionnaire. The second part of the ISAP questionnaire (ISAP F), that is, the part that measures if the symptoms are the reason for the participants SAPs, had a low response rate with answers



only from 57% of the participants. Because of the low response rate, the results regarding reasons for SAPs should be interpreted with caution. It can be speculated that the reason for the low response rate could be due to not understanding the instructions on how to fill in the questionnaire correctly, or that the participants found it difficult to evaluate if the symptoms were the reason for their SAPs. A missing answer could also be interpreted as a 0 that is, no impact on school attendance, if the participant had replied not having the symptom in question.

### **Conclusions**

In conclusion, the current study shows differences between adolescents with ADHD and neurotypical adolescents regarding SAPs. This study considers both the degree of SAPs, symptoms that are linked to it and to what extent the symptoms are the reason for it. The result of this study contributes to the research of SAPs.

Future research could examine what other factors could impact on neuroatypical adolescents' SAPs and on the differences between adolescents with ADHD compared to other neuroatypicalities, such as autism spectrum disorder. Future research could also examine which protective actions could be used to prevent school absenteeism in neuroatypical adolescents.

## Swedish summary/ Svensk sammanfattning

### Problem med skolnärvaro bland ungdomar med ADHD

#### Introduktion

Syftet med denna studie var att undersöka problem med skolnärvaro och orsakerna till dem bland ungdomar med ADHD (attention deficit hyperactivity disorder). I denna studie kommer begreppet problem med skolnärvaro att användas för att även täcka problem före själva skolfrånvaron, såsom att vägra eller att undvika att gå till skolan.

Närvaroproblem i skolan kan mätas på flera olika sätt. Gränsen för det som uppfattas som problematisk skolfrånvaro varierar mellan olika länder. I Storbritannien anses det vara problematiskt ifall man är borta 10 % av skoltiden (Department of Education, 2019). Kearney (2008) har däremot definierat att skolfrånvaro är problematiskt när en person antingen har missat minst 25 % av tiden i skolan, eller har haft utmaningar med att gå till skolan i minst 14 dagar, vilket i sin tur har påverkat familjens vardag negativt. Det tredje kriteriet är att personen har varit frånvarande minst 15 % av tiden under en 15 veckors period, vilket är 25 % av skoldagen. Määttä m.fl. (2020) uppskattade att förekomsten av problematisk skolfrånvaro i Finland bland ungdomar var 4 %, och det sågs som en ökning från de senaste åren.

Skolfrånvaro kan ha negativa konsekvenser, och det kan påverka barns skolframgång (Gottfried, 2009, 2014) såväl som deras sociala kontakter (Gottfried, 2014). Det kan även leda till negativa konsekvenser senare i livet, såsom ekonomiska problem som ung vuxen (Ansari m.fl. 2020) och arbetslöshet (Attwood & Croll, 2006, 2014). Studier har även visat att barn med hög skolfrånvaro under sina första år i skolan, också har det även senare i livet (Ansari & Pianta, 2019). Barn med hög skolfrånvaro har även en större andel avhopp jämfört med andra barn (Cabus & de Witte, 2014).

Det finns flera anledningar till skolfrånvaro. Vanliga orsaker är: hälsorelaterade problem (Havik et al. 2014), bristande relationer med andra elever (Havik et al., 2015) och att man har en neuropsykiatrisk diagnos, såsom autismspektrumstörning d.v.s. ASD (Munkhaugen m.fl., 2017) och/eller ADHD (Fleming et al., 2017; Kent m.fl., 2010; May m.fl., 2020). Forskning har även visat att risken för skolfrånvaro ökar ifall ett barn utsätts för misshandel och bristande omsorg, (Marlow & Rehman, 2021), har en låg socioekonomiska bakgrund (Balkis m.fl., 2016), eller lider av psykiska problem (Egger m.fl., 2003). Även

externaliserande beteende har visat sig vara en förutsägande faktor för skolfrånvaro (Ingul m.fl., 2011).

ADHD klassificeras som en neuroatypisk funktionsvariation. Det kännetecknas av koncentrationssvårigheter och/eller överaktivitet samt impulsivitet (American Psychiatric Association, 2013). Vanliga tecken på ADHD är till exempel att man är slarvig i skolan, att man har en oförmåga att fokusera på en sak åt gången, man pratar mycket mer än alla andra och har en vana att avbryta då andra pratar (American Psychiatric Association, 2013). Det är vanligt bland barn med ADHD att även ha en annan diagnos eller andra symtom (Biederman, Newcorn & Sprich, 1991; Kadesjo & Gillberg, 2011; Yuce m.fl., 2013). Studier har visat att barn med ADHD kan ha högre nivåer av social ångest (Schmitz m.fl., 2010; Chavira m.fl., 2004), separationsångest (Biederman et al., 1996), depression (Meinzer, Pettit & Viswesvaran, 2014), agorafobi/panik (Biederman et al., 1996; Biederman m.fl., 1997), somatiska besvär (Kutuk m.fl., 2018) och aggression (Murray m.fl., 2021). Det är även vanligt bland ungdomar med uppmärksamhetsproblem att också ha problem med relationer med jämnåriga (Barnow m.fl., 2006).

Studier har visat att barn med ADHD har högre skolfrånvaro jämfört med andra barn (Fleming m.fl., 2017; Kent m.fl., 2010; May m.fl., 2020). Barn med ADHD har också visat sig ha andra typer av skolrelaterade svårigheter, såsom låga skolprestationer (Fleming m.fl., 2017; May m.fl., 2020) och inläringssvårigheter (DuPaul, Gormley, & Laracy., 2012). De kan också uppleva mobbning oftare, särskilt om de även har ASD (McClemont m.fl., 2020). Studier har också visat att barn med ADHD är mer benägna att sluta skolan tidigare än andra, de är mer benägna att behöva specialhjälp i skolan och de tenderar att ha svårigheter med att få jobb senare i livet, även när diagnosen är behandlad med medicinering (Fleming m.fl., 2017). Studier har också visat att barn med ADHD kan ha problem med känsloreglering (Graziano & Garcia, 2016).

Det är viktigt att uppmärksamma komorbiditeterna när problem med skolornvaro bedöms, eftersom ADHD-diagnosen ensam möjligtvis inte räcker som förklaring. Enligt Classi m.fl. (2012) kan ADHD i kombination med en annan diagnos öka skolgångsproblemen mer än bara en ADHD-diagnos. Studien visade att barn med ADHD, som även hade ångest, depression eller fobier, var mer benägna att vara borta från skolan i över 14 dagar jämfört med barn med endast ADHD (Classi m.fl., 2012). Detta betyder att ADHD i kombination med internaliserade problem kan öka risken för skolfrånvaro. Schiberras m.fl. (2014) fann däremot att barn med två eller flera ångeststörningar i kombination med ADHD hade en

högre grad av skolgångsproblem jämfört med barn med ADHD och en ångeststörning, eller barn med enbart ADHD.

Att ha problem med jämnåriga kamrater är också vanligt bland ungdomar med uppmärksamhetsproblem (Barnow m.fl., 2006), och problem med kamratrelationer är också relaterat till skolfrånvaro (Egger m.fl., 2003; Havik m.fl., 2015). Barn med ADHD har inte heller en lika nära relation till sina lärare som sina jämnåriga kamrater har (Ewe, 2019). Dessutom kan även relationen till föräldrarna vara sämre jämfört den relation neurotypiska barn har med sina föräldrar. Studier har även visat att ungdomar med ADHD har mer problematiska konflikter med sina föräldrar (Edwards m.fl., 2001; Barkley m.fl., 1992) och konflikterna tenderar att vara mer aggressiva och ha en mer negativ ton (Edwards m.fl., 2001; Barkley m.fl., 1992).

Tidigare forskning har pekat ut flera områden inom utbildning och skola, som kan vara problematiska för barn och ungdomar med ADHD. Det är dock oklart ifall, och i vilken utsträckning svårigheterna bidrar till skolfrånvaro. Detta kan illustreras med ett exempel: en ungdom med ADHD och hög frånvaro, rapporterar om konflikter med kamrater och symtom på ångest. Med stor sannolikhet bidrar båda svårigheterna till att ungdomen känner sig stressad och nedstämd. Orsaken till att man inte går i skolan kan dock vara att det handlar om oro i samband med provsituationer. I det här exemplet kanske konflikterna med kamrater inte uppfattas som en anledning till att inte gå till skolan, eftersom ungdomen kan ha andra kompisar i skolan som han/hon gillar att umgås med. Det är därmed viktigt att både mäta mängden olika symtom och ta reda på ifall de rapporterade symtomen är orsaken till skolfrånvaron.

### **Syfte**

Syftet med denna studie var att undersöka skillnaderna i problem med skolnärvaro mellan ungdomar med ADHD och neurotypiska ungdomar. Hypoteserna i denna studie var:

1. Ungdomar med ADHD kommer att uppvisa en högre nivå av skolfrånvaro jämfört med neurotypiska ungdomar.
2. Ungdomar med ADHD kommer att ha en högre nivå av de symtom som är vanliga bland ungdomar med ADHD såsom: social ångest, separationsångest, depression, agorafobi/panik, somatiska besvär och aggression, och de kommer att ha en inverkan på problemen med skolnärvaro. Ungdomar med ADHD kommer att ha fler problem med kamrater och/eller lärare och/eller föräldrar.
3. Ungdomar med ADHD kommer att rapportera att ökade symtom i de områden som beskrevs i hypotes 2 också kommer att påverka problemen med skolnärvaro. Inga a

priori-hypoteser om vilka symtom som är mer kopplade till skolnärvaro gjordes, på grund av brist på tidigare forskning.

### Metod

Den aktuella studien var en del av projektet Skolfrånvaro i Finland. Projektet inleddes med att översätta School Refusal Assessment Scale-Revised (SRAS-R) (Kearney, 2002), Inventory of School Attendance Problems (ISAP) (Knollmann et al., 2018), och School Non Attendance Checklist (SNACK) (Heyne et al., 2019) till svenska, och SNACK översattes även till finska. Två forskare utformade bakgrundsvariablerna och ytterligare objekt. Endast ISAP-frågeformuläret och bakgrundsvariablerna användes i denna studie. Rekryteringen av skolor startade i januari 2021 och de frivilliga skolorna som deltog rekryterade deltagare bland sina elever. Ett startseminarium för skolpersonal anordnades i januari 2021. Seminariet innehöll föreläsningar och information om studien, och syftet med seminariet var att sprida information och att rekrytera skolor. Totalt deltog 15 skolor i studien. Skolorna var belägna både i södra och västra Finland. Uppgifterna från ungdomarna samlades in under en skoldag, i maj 2021. Föräldrarna kontaktades och informerades via e-post. Föräldrarna ombads också fylla i ett informerat samtycke för att deras egen tonåring skulle få delta i studien. Skolans personal deltog i datainsamlingsprocessen för att få data insamlade från elever med hög skolfrånvaro.

Studien godkändes av den etiska granskningsnämnden vid Åbo Akademi. Det slutliga samplet var 1569 (954 svensktalande ungdomar och 725 finsktalande ungdomar). Det fanns 568 svar som var ofullständiga. Medelåldern för neurotypiska ungdomar ( $N = 1569$ ) var 14,9 ( $SD = 0,850$ ) och för ungdomar med ADHD ( $N = 95$ ) 15,0 ( $SD = 1,009$ ).

Frågeformuläret som användes i denna studie var The Inventory of School Attendance Problems (ISAP) (Knollmann m.fl., 2018). ISAP används som screeningverktyg för att hitta typiska problem som var relaterade till skolnärvaro. Enkäten innehåller 13 faktorer som mäts med hjälp av 48 frågor. De 13 faktorerna mäter följande problem eller symtom: problem med läraren, kamrater och föräldrarna, familjerelaterade problem, motvilja för skolan, symtom på depression, prestationsångest, somatiska besvär, aggression, social ångest, separationsångest, panik/agorafobi och att ha andra konkurrerande alternativ/skolavsky. Problem med närvaro kan bedömas brett med hjälp av ISAP på grund av dess förmåga att upptäcka hur symtom är kopplade till skolfrånvaro och hur starka symtomen är både före och under skoldagen. ISAP-enkäten innehåller både en symptomskala (ISAP S) och en funktionsskala (ISAP F). Symptomskalan visar hur många av symtomen som är aktuella, och funktionsskalan visar ifall och på vilket sätt symtomen påverkar skolgången.

ISAP-frågeformuläret mäter också hur ofta ungdomar har varit frånvarande från skolan under de senaste 12 veckorna både med och utan tillstånd. (Knollmann m.fl., 2018).

Alla dataförberedelser och analyser utfördes i R version 4.0.2, där R-Studio version 1.3. R-paketet tidyverse (Wickham m.fl., 2019) användes för datahantering och plottning. Det insamlade samplet hade  $N = 2137$  svar varav 568 var ofullständiga. Tjugofem deltagare exkluderades eftersom de inte var inom rätt åldersspann. Fyrahundraåttio deltagare exkluderades eftersom de inte hade fyllt i den del av undersökningen som var nödvändig för analyser eller saknade mer än 30 % av data. Fyrtioåttio deltagare exkluderades för att de hade rapporterat "inget av ovanstående" på högsta utbildningsnivå för en förälder. Deltagare som hade autism exkluderades ( $N = 15$ ) för att möjliggöra jämförelser mellan neuroatypisk resp. neurotypisk. Den slutliga sampelstorleken för analyser var  $N = 1569$  för ISAP S och  $N = 890$  för ISAP F.

Linjära mixade effektmodeller användes för att jämföra neuroatypisk resp. neurotypisk på de 13 faktorerna för ISAP-symtom och funktioner, med hjälp av lmerTest-paketet (Kuznetsova m.fl., 2017). Livsstatus, kön, andra diagnoser, högsta utbildningsnivån för föräldern och ungdomens ålder inkluderades i alla modeller för att ta hänsyn till variansen som förklaras av dessa bakgrundsvariabler. Barnets skola inkluderades för att kontrollera för variationer mellan skolor. Variansen av den slumpmässiga effekten av skolan var försumbar, från 0,00 till 0,04 (intraklasskorrelation, ICC: 0,00 – 0,07) för ISAP S och 0,00 till 0,002 (ICC: 0,00 – 0,01) för ISAP F. Det gick alltså inte att hitta några väsentliga skillnader mellan skolor.

## Resultat

Ett oberoende T-test utfördes för att få medelvärden och standardavvikelser för båda grupperna på varje ISAP-faktor, och för att kunna jämföra medelvärden mellan grupperna för både symtom (ISAP S) och orsaker (ISAP F) för problem med närvaro. Det högsta medelvärdet för båda grupperna på ISAP S var skolavsky/andra konkurrerande alternativ ( $M = 1,187$ ,  $SD = 0,791$  för ungdomar med ADHD och  $M = 0,950$ ,  $SD = 0,724$  för neurotypiska ungdomar). Skillnaderna mellan ungdomar med ADHD och neurotypiska ungdomar var statistiskt signifikanta på alla faktorer, förutom på faktorn som mätte prestationsångest.

Den andra delen av ISAP-frågeformuläret mätte om symtomet var orsaken till problemen med skolnärvaro (ISAP F). Det högsta medelvärdet för ungdomar med ADHD var återigen andra konkurrerande alternativ/skolavsky ( $M = 0,580$ ,  $SD = 0,770$ ), men det högsta medelvärdet för den neurotypiska gruppen var somatiska besvär ( $M = 0,418$ ,  $SD = 0,551$ ).

Skillnaderna mellan grupperna var statistiskt signifikanta för de faktorer som mätte depression, agorafobi/panik, skolavsky/andra konkurrerande alternativ, aggression och problem inom familjen.

Av ungdomarna med ADHD hade 16 % angett att de hade varit frånvarande från skolan minst 5–12 dagar under de senaste 12 veckorna (cirka 10 % av skoltiden), antingen med eller utan tillstånd från föräldrar och/eller skola. Motsvarande andel för neurotypiska ungdomar var 8 %. Resultaten visade också att ungdomar med ADHD hade en större mängd av alla symtom (ISAP S) förutom prestationsångest. Resultaten var dock statistiskt signifikanta endast för faktorerna som mätte agorafobi/panik ( $b = 0,16$ ;  $SE = 0,05$ ;  $p = 0,045$ ), aggression ( $b = 0,30$ ;  $SE = 0,07$ ;  $p < .001$ ), problem inom familjen ( $b = 0,16$ ;  $SE = 0,06$ ;  $p = 0,005$ ), och problem med föräldrar ( $b = 0,20$ ;  $SE = 0,05$ )  $p < .001$ .

Ungdomar med ADHD hade också högre poäng på varje ISAP-faktor som visade om symtomet var orsaken till deras närvaroproblem (ISAP F) (se tabell 5). Skillnaderna var signifikanta endast på faktorerna som mätte ifall separationsångest ( $b = 0,09$ ,  $SE = 0,40$ ,  $p = 0,03$ ), agorafobi/panik ( $b = 0,15$ ,  $SE = 0,05$ ,  $p = 0,002$ ), aggression ( $b = 0,2$ ,  $SE = 0,06$ ,  $p < .001$ ), problem inom familjen ( $b = 0,17$ ,  $SE = 0,06$ ,  $p = 0,004$ ) och problem med föräldrarna ( $b = 0,14$ ,  $SE = 0,05$ ,  $p = 0,03$ ) var orsaken till problem med skolnärvaro.

För att ytterligare reda ut orsakerna till närvaroproblem i skolan analyserades hur många som hade rapporterat att symptomen hade åtminstone en måttlig påverkan på närvaroproblemet. Detta gjordes genom att studera hur många som hade svarat att ett visst symptom var relativt ofta en anledning till närvaroproblemet. Den vanligaste orsaken till närvaroproblem för ADHD-gruppen var skolavsky/andra konkurrerande alternativ (21 %). Den vanligaste orsaken för neurotypiska ungdomar var somatiska besvär (10 %).

## Diskussion

Syftet med denna studie var att undersöka skillnaderna mellan ungdomar med ADHD och neurotypiska ungdomar gällande problem med skolnärvaro. Det antogs att ungdomar med ADHD skulle ha mer skolfrånvaro i jämförelse med neurotypiska ungdomar. Det antogs även att ungdomar med ADHD skulle ha en högre nivå av de symtom som anses vara vanliga bland ungdomar med ADHD och det förväntades att åtminstone några av symptomen också skulle vara orsaken till deras närvaroproblem.

I enlighet med hypotesen i början och tidigare studier (Fleming m.fl., 2017; Kent m.fl., 2010; May m.fl., 2020) visade resultatet att en större andel ungdomar med ADHD var frånvarande från skolan jämfört med ungdomar utan neuroatypiska egenskaper. Andelen som

hade varit frånvarande minst 5–12 dagar under de senaste 12 veckorna var dubbelt så stor bland ungdomar med ADHD.

Resultaten visar även att ungdomar med ADHD hade fler av de symptom som mättes med ISAP-frågeformuläret. Antalet symptom var större på alla faktorer förutom på faktorn som mätte prestationsångest. Bara nivåerna av agorafobi/panik, aggression och problem med föräldrar var statistiskt signifikant högre. Resultaten är därför i linje med hypotesen, och i enlighet med tidigare forskning om hur det är vanligt bland ungdomar med ADHD att även ha agorafobi/panik (Biederman m.fl., 1996; Biederman m.fl., 1997), aggression (Murray m.fl., 2021), och problem med föräldrarna (Edwards m.fl., 2001; Barkley m.fl., 1992).

Ungdomar med ADHD hade högre poäng på varje ISAP-faktor som visade om symtomen var orsaken till deras närvaroproblem i skolan (ISAP F), och resultaten var statistiskt signifikanta på faktorerna som mätte separationsångest, agorafobi/panik, skolavsky/andra konkurrerande alternativ, aggression, problem inom familjen och problem med föräldrarna. De signifikanta resultaten gällande separationsångest var oväntade, med tanke på att faktorerna som mätte problem inom familjen och problem med föräldrarna även var statistiskt signifikanta. Dessutom brukar barn med ADHD ha mer problematiska konflikter med sina föräldrar jämfört med neurotypiska barn (Edwards m.fl., 2001; Barkley m.fl., 1992). Man skulle kunna spekulera i att detta resultat kunde bero på att en ungdom med ADHD kan ha ambivalenta känslor mot sina föräldrar, eller att problemen mellan ungdomen och föräldrarna kan ge upphov till en rädsla eller oro över att förlora dem.

Signifikanta resultaten gällande agorafobi/panik är inte förvånande med tanke på problemets symtombild. Personer som lider av agorafobi kan ha en önskan om att undvika situationer eller platser som man inte lätt kan fly från (American Psychiatric Association, 2013). Det kan även finnas en rädsla för att få en panikattack på en viss plats (American Psychiatric Association, 2013), och i det här fallet skulle platsen kunna vara skolan.

Den signifikanta faktorn som mätte aggression skulle kunna tolkas som att aggressivt beteende bland ungdomar med ADHD kan väcka starka reaktioner bland kamrater eller lärare, och detta kan leda till att ungdomen kan känna sig avvisad. Detta kan i sin tur påverka ungdomens önskan om att gå till skolan. Faktorerna som mätte problem med kamrater och problem med läraren var dock inte signifikant, så dessa tolkningar bör betraktas med försiktighet.

Skolavsky/andra konkurrerande alternativ kan kopplas till ungdomens oförmåga att koncentrera sig (American Psychiatric Association, 2013) och/eller att inte få det stöd som



behövs i skolan. Koncentrationssvårigheter i sig kan leda till önskan om att göra något roligare utanför skolan.

Resultaten är i linje med hypotesen, det vill säga att de symptom som är vanliga bland ungdomar med ADHD påverkar deras skolgång. Resultaten stödjer också tidigare forskning om hur ADHD ensamt kanske inte förklarar problem med skolnärvaro fullständigt och att komorbida symptom kan öka svårigheterna mer än ADHD ensamt (Classi m.fl., 2012).

Denna studie har vissa styrkor och begränsningar. Studien hade 1569 deltagare och det relativt stora samplet kan ses som en styrka. ADHD-gruppen hade dock bara 95 deltagare, vilket kan ha lett till att den statistiska styrkan inte var optimal och att vissa skillnader nådde därmed inte statistisk signifikans. En annan begränsning var att alla deltagare inte svarade på alla frågor. Den andra delen av ISAP-frågeformuläret (ISAP F), hade en låg svarsfrekvens med svar från endast 57 % av deltagarna. På grund av den låga svarsfrekvensen bör resultaten gällande orsaker till problem med skolnärvaro tolkas med försiktighet. Man kan spekulera om att den låga svarsfrekvensen kan bero på att deltagarna inte förstätt instruktionerna korrekt, eller att de hade svårt att utvärdera om symptomen var orsaken till närvaroproblem.

Framtida forskning skulle kunna undersöka vilka andra faktorer som kan påverka neuroatypiska ungdomars problem med skolnärvaro och vilka skyddsåtgärder som kan användas för att förhindra dessa problem bland neuroatypiska ungdomar.

### References

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5(TM))* (5th ed.). American Psychiatric Publishing.
- Ansari, A., Hofkens, T. L., & Pianta, R. C. (2020). Absenteeism in the First Decade of Education Forecasts Civic Engagement and Educational and Socioeconomic Prospects in Young Adulthood. *Journal of Youth and Adolescence*, *49*(9), 1835–1848. <https://doi.org/10.1007/s10964-020-01272-4>
- Ansari, A., & Pianta, R. C. (2019). School absenteeism in the first decade of education and outcomes in adolescence. *Journal of School Psychology*, *76*, 48–61. <https://doi.org/10.1016/j.jsp.2019.07.010>
- Attwood, G., & Croll, P. (2006). Truancy in secondary school pupils: prevalence, trajectories and pupil perspectives. *Research Papers in Education*, *21*(4), 467–484. <https://doi.org/10.1080/02671520600942446>
- Attwood, G., & Croll, P. (2014). Truancy and well-being among secondary school pupils in England. *Educational Studies*, *41*(1–2), 14–28. <https://doi.org/10.1080/03055698.2014.955725>
- Balkıs, M., Arslan, G., & Duru, E. (2016). The School Absenteeism among High School Students: Contributing Factors. *Educational Sciences: Theory & Practice*, *16*, 1819–1831. <https://doi.org/10.12738/estp.2016.6.0125>
- Barkley, R.A., Anastopoulos, A.D., Guevremont, D.C. Fletcher K. E. (1992) Adolescents with attention deficit hyperactivity disorder: Mother-adolescent interactions, family beliefs and conflicts, and maternal psychopathology. *J Abnorm Child Psychol* **20**, 263–288 (1992). <https://doi.org/10.1007/BF00916692>
- Barnow, S., Schuckit, M., Smith, T., & Freyberger, H. J. (2006). Predictors of Attention Problems for the Period from Pre-Teen to Early Teen Years. *Psychopathology*, *39*(5), 227–235. <https://doi.org/10.1159/000093923>
- Biederman, J., Faraone, S., Milberger, S., Guite, J., Mick, E., Chen., M., ... Perrin J. (1996). A Prospective 4-Year Follow-up Study of Attention-Deficit Hyperactivity and Related Disorders. *Archives of General Psychiatry*, *53*(5), 437. <https://doi.org/10.1001/archpsyc.1996.01830050073012>
- Biederman, J., Faraone, S. V., Marris, A., Moore, P., Garcia, J., Ablon, S., Mick, E., Gershon, J., & Kearns, M. E. (1997). Panic Disorder and Agoraphobia in Consecutively Referred Children and Adolescents. *Journal of the American Academy*

- of Child & Adolescent Psychiatry*, 36(2), 214–223. <https://doi.org/10.1097/00004583-199702000-00012>
- Biederman, J., Newcorn, J., Sprich, S. (1991). Comorbidity of attention deficit hyperactivity disorder with conduct, depressive, anxiety, and other disorders. *American Journal of Psychiatry*, 148(5), 564–577. <https://doi.org/10.1176/ajp.148.5.564>
- Cabus, S. J., & de Witte, K. (2014). Does unauthorized school absenteeism accelerate the dropout decision? – Evidence from a Bayesian duration model. *Applied Economics Letters*, 22(4), 266–271. <https://doi.org/10.1080/13504851.2014.937031>
- Chavira, D. A., Stein, M. B., Bailey, K., & Stein, M. T. (2004). Comorbidity of generalized social anxiety disorder and depression in a pediatric primary care sample. *Journal of Affective Disorders*, 80(2–3), 163–171. [https://doi.org/10.1016/s0165-0327\(03\)00103-4](https://doi.org/10.1016/s0165-0327(03)00103-4)
- Classi, P., Milton, D., Ward, S., Sarsour, K., & Johnston, J. (2012). Social and emotional difficulties in children with ADHD and the impact on school attendance and healthcare utilization. *Child and Adolescent Psychiatry and Mental Health*, 6(1), 33. <https://doi.org/10.1186/1753-2000-6-33>
- Department for Education. (2019). A guide to absence statistics. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/787314/Guide\\_to\\_absence\\_statistics\\_21032019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/787314/Guide_to_absence_statistics_21032019.pdf).
- DuPaul, G. J., Gormley, M. J., & Laracy, S. D. (2012). Comorbidity of LD and ADHD. *Journal of Learning Disabilities*, 46(1), 43–51. <https://doi.org/10.1177/0022219412464351>
- Edwards, G., Barkley, R.A., Laneri, M. *et al.* Parent–Adolescent Conflict in Teenagers with ADHD and ODD. *J Abnorm Child Psychol* 29, 557–572 (2001). <https://doi.org/10.1023/A:1012285326937>
- Egger, H. L., Costello, J. E., & Angold, A. (2003). School Refusal and Psychiatric Disorders: A Community Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42(7), 797–807. <https://doi.org/10.1097/01.chi.0000046865.56865.79>
- Ewe, L. P. (2019). ADHD symptoms and the teacher–student relationship: a systematic literature review. *Emotional and Behavioural Difficulties*, 24(2), 136–155. <https://doi.org/10.1080/13632752.2019.1597562>
- Fleming, M., Fitton, C. A., Steiner, M. F. C., McLay, J. S., Clark, D., King, A., Mackay, D. F., & Pell, J. P. (2017). Educational and Health Outcomes of Children Treated for

- Attention-Deficit/Hyperactivity Disorder. *JAMA Pediatrics*, *171*(7), e170691.  
<https://doi.org/10.1001/jamapediatrics.2017.0691>
- Gottfried, M. A. (2009). Excused Versus Unexcused: How Student Absences in Elementary School Affect Academic Achievement. *Educational Evaluation and Policy Analysis*, *31*(4), 392–415. <https://doi.org/10.3102/0162373709342467>
- Gottfried, M. A. (2014). Chronic Absenteeism and Its Effects on Students' Academic and Socioemotional Outcomes. *Journal of Education for Students Placed at Risk (JESPAR)*, *19*(2), 53–75. <https://doi.org/10.1080/10824669.2014.962696>
- Graziano, P. A., & Garcia, A. (2016). Attention-deficit hyperactivity disorder and children's emotion dysregulation: A meta-analysis. *Clinical Psychology Review*, *46*, 106–123. <https://doi.org/10.1016/j.cpr.2016.04.011>
- Havik, T., Bru, E., & Ertesvåg, S. K. (2014). Assessing Reasons for School Non-attendance. *Scandinavian Journal of Educational Research*, *59*(3), 316–  
<https://doi.org/10.1080/00313831.2014.904424>
- Havik, T., Bru, E., & Ertesvåg, S. K. (2015). School factors associated with school refusal- and truancy-related reasons for school non-attendance. *Social Psychology of Education*, *18*(2), 221–240. <https://doi.org/10.1007/s11218-015-9293-y>
- Heyne, D., Gren-Landell, M., Melvin, G., & Gentle-Genitty, C. (2019). Differentiation Between School Attendance Problems: Why and How? *Cognitive and Behavioral Practice*, *26*(1), 8–34. <https://doi.org/10.1016/j.cbpra.2018.03.006>
- Ingul, J. M., Klöckner, C. A., Silverman, W. K., & Nordahl, H. M. (2011). Adolescent school absenteeism: modelling social and individual risk factors. *Child and Adolescent Mental Health*, *17*(2), 93–100. <https://doi.org/10.1111/j.1475-3588.2011.00615.x>
- Kadesjo, B., & Gillberg, C. (2001). The Comorbidity of ADHD in the General Population of Swedish School-age Children. *Journal of Child Psychology and Psychiatry*, *42*(4), 487–492. <https://doi.org/10.1111/1469-7610.00742>
- Kearney, C. A. (2008). An Interdisciplinary Model of School Absenteeism in Youth to Inform Professional Practice and Public Policy. *Educational Psychology Review* *20*, nro 3: s. 257–82. <https://doi.org/10.1007/s10648-008-9078-3>.
- Kearney, C. A. (2002). Identifying the Function of School Refusal Behavior: A Revision of the School Refusal Assessment Scale. *Journal of Psychopathology and Behavioral Assessment*, *24*(4), 235–245. <https://doi.org/10.1023/a:1020774932043>

- Kent, K. M., Pelham, W. E., Molina, B. S. G., Sibley, M. H., Waschbusch, D. A., Yu, J., Gnagy, E. M., Biswas, A., Babinski, D. E., & Karch, K. M. (2010). The Academic Experience of Male High School Students with ADHD. *Journal of Abnormal Child Psychology*, *39*(3), 451–462. <https://doi.org/10.1007/s10802-010-9472-4>
- Knollmann, M., Reissner, V., & Hebebrand, J. (2018). Towards a comprehensive assessment of school absenteeism: development and initial validation of the inventory of school attendance problems. *European Child & Adolescent Psychiatry*, *28*(3), 399–414. <https://doi.org/10.1007/s00787-018-1204-2>
- Kutuk, M. O., Tufan, A. E., Guler, G., Yalin, O. O., Altintas, E., Bag, H. G., Uluduz, D., Toros, F., Aytan, N., Kutuk, O., & Ozge, A. (2018). Migraine and associated comorbidities are three times more frequent in children with ADHD and their mothers. *Brain and Development*, *40*(10), 857–864. <https://doi.org/10.1016/j.braindev.2018.06.001>
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. (2017). lmerTest package: tests in linear mixed effects models. *Journal of statistical software*, *82*, 1-26.
- Marlow, S. A., & Rehman, N. (2021). The relationship between family processes and school absenteeism and dropout: a meta-analysis. *The Educational and Developmental Psychologist*, *38*(1), 3–23. <https://doi.org/10.1080/20590776.2020.1834842>
- Martin, A. J. (2014). The role of ADHD in academic adversity: Disentangling ADHD effects from other personal and contextual factors. *School Psychology Quarterly*, *29*(4), 395–408. <https://doi.org/10.1037/spq0000069>
- May, F., Ford, T., Janssens, A., Newlove-Delgado, T., Emma Russell, A., Salim, J., Ukoumunne, O. C., & Hayes, R. (2020). Attainment, attendance, and school difficulties in UK primary schoolchildren with probable ADHD. *British Journal of Educational Psychology*, *91*(1), 442–462. <https://doi.org/10.1111/bjep.12375>
- McClemont, A. J., Morton, H. E., Gillis, J. M., & Romanczyk, R. G. (2020). Brief Report: Predictors of School Refusal Due to Bullying in Children with Autism Spectrum Disorder and Attention-Deficit/Hyperactivity Disorder. *Journal of Autism and Developmental Disorders*, *51*(5), 1781–1788. <https://doi.org/10.1007/s10803-020-04640-y>
- Meinzer, M. C., Pettit, J. W., & Viswesvaran, C. (2014). The co-occurrence of attention-deficit/hyperactivity disorder and unipolar depression in children and adolescents: A

- meta-analytic review. *Clinical Psychology Review*, 34(8), 595–607.  
<https://doi.org/10.1016/j.cpr.2014.10.002>
- Munkhaugen, E. K., Gjevik, E., Pripp, A. H., Sponheim, E., & Diseth, T. H. (2017). School Refusal Behaviour: Are Children and Adolescents with Autism Spectrum Disorder at a Higher Risk? *Research in Autism Spectrum Disorders* 41–42. s. 31–38.  
<https://doi.org/10.1016/j.rasd.2017.07.001>.
- Murray, A., Lavoie, J., Booth, T., Eisner, M., & Ribeaud, D. (2021). To what extent does emotional dysregulation account for aggression associated with ADHD symptoms? An experience sampling study. *Psychiatry Research*, 303, 114059.  
<https://doi.org/10.1016/j.psychres.2021.114059>
- Polanczyk, G., de Lima, M. S., Horta, B. L., Biederman, J., & Rohde, L. A. (2007). The Worldwide Prevalence of ADHD: A Systematic Review and Metaregression Analysis. *American Journal of Psychiatry*, 164(6), 942–948.  
<https://doi.org/10.1176/ajp.2007.164.6.942>
- Schmitz, M., Ludwig, H., & Rohde, L. A. (2010). Do Hyperactive Symptoms Matter in ADHD-I Restricted Phenotype? *Journal of Clinical Child & Adolescent Psychology*, 39(6), 741–748. <https://doi.org/10.1080/15374416.2010.517170>
- Van Buuren, S., & Groothuis-Oudshoorn, K. (2011). mice: Multivariate imputation by chained equations in R. *Journal of statistical software*, 45, 1-67.
- Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L. D. A., François, R., Grolemond, G., Hayes, A., Henry, L., Hester, J., Kuhn, M., Pedersen, T. L., Miller, E., Bache, S. M., Müller, K., Ooms, J., Robinson, D., Seidel, D. P., Spinu, V., ... Yutani, H. (2019). Welcome to the Tidyverse. *Journal of Open Source Software*, 4(43), 1686. <https://doi.org/10.21105/joss.01686>
- Yuce, M., Zoroglu, S. S., Ceylan, M. F., Kandemir, H., & Karabekiroglu, K. (2013). Psychiatric comorbidity distribution and diversities in children and adolescents with attention deficit/hyperactivity disorder: a study from Turkey. *Neuropsychiatric Disease and Treatment*, 1791. <https://doi.org/10.2147/ndt.s54283>

## PRESSMEDDELANDE

Närvaroproblem bland ungdomar med ADHD

Pro-gradu avhandling i psykologi

Fakulteten för humaniora, psykologi, teologi, Åbo Akademi

Resultaten visade att ungdomar med ADHD hade varit mer frånvarande från skolan jämfört med neurotypiska ungdomar under de senaste 12 veckorna. Ungdomar med ADHD visade också fler symptom av agorafobi/panik, problem inom familjen och problem med föräldrar) än neurotypiska jämnåriga och separationsångest, agorafobi/panik, aggression, problem inom familjen och problem med föräldrar ledde till oftare till närvaroproblem. Syftet med denna studie var att undersöka närvaroproblem i skolan och orsakerna till dem bland ungdomar med ADHD och neurotypiska ungdomar. I studien mättes mängden skolfrånvaro under senaste 12 veckorna, mängden symptom relaterade till skolnärvaroproblem och ifall samt hur symptomen har påverkat elevernas skolnärvaroproblem. Studien var en del av projektet *Skolfrånvaro i Finland*. I studien deltog 1569 ungdomar i åldrarna 12-18 år, från både finskspråkiga och svenskspråkiga skolor i Finland.

Avhandlingen utfördes av Sofia Niemi under handledning av Katarina Alanko PsD.

Ytterligare information fås av:

Sofia Niemi

Tel. 050 3366606

E-post: soniemi@abo.fi