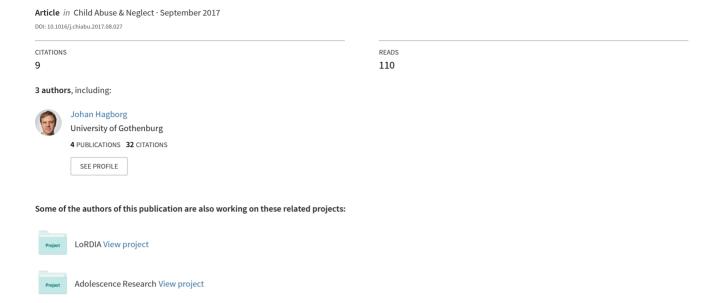
Evidence for a relationship between child maltreatment and absenteeism among high-school students in Sweden



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Evidence for a relationship between child maltreatment and absenteeism among high-school students in Sweden

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ABSTRACT

School absenteeism is a potent predictor of academic failure. Maltreated adolescents have been found to be more absent from school compared to their peers. However, it is scarcely studied in what degree a general population of students with high levels of school absenteeism has been exposed to child maltreatment. Furthermore, it is not known if maltreated school-absentees have specific characteristics compared to not-maltreated absentees. In this article, the first objective was to present and compare the prevalence of six types of child maltreatment in a general population of high school students reporting no, moderate or excessive absenteeism. The second objective was to compare maltreated and not-maltreated students who report absenteeism in respect to mental health, perceived school environment and peer victimization in school. Data from 667 girls and 649 boys (mean age 14.3) was used from the longitudinal multidisciplinary research program LoRDIA (Longitudinal Research on Development In Adolescence). Data was collected via self-report questionnaires in classroom settings. All six types of child maltreatment were overrepresented among absentees. Roughly 25% of absentees reported one subtype of maltreatment (16% in the total population) and a mean of 22% of absentees reported two or more types of maltreatment (11% in the total population). Maltreated absentees reported more mental health problems, personal harassment and worse relationship with their teachers than not-maltreated absentees. There might be specific correlates of school absenteeism among maltreated adolescents and professionals involved in preventing school-absenteeism should be made aware of the relationship between maltreatment and absenteeism.

1. Introduction

Academic achievement has been shown to be a potent protective factor against the development of mental health problems for children exposed to maltreatment and trauma (e.g. Zingraff et al., 1994). However, maltreated children normally runs heightened risk of a myriad of stressors that might hinder them from succeeding in all the developmental tasks necessary to sustain a good enough schooling (Eckenrode, Laird, & Doris, 1993; Shonk & Cicchetti, 2001; Veltman & Browne, 2001). Hence, there is abundant evidence of the negative influence of child maltreatment on educational outcomes (Romano, Babchishin, Marquis, & Fréchette, 2015; Slade & Wissow, 2007).

One of the most potent predictors of academic failure and permanent school dropout is poor school attendance. Poor school attendance has been labelled with many terms such as unexcused absenteeism, truancy or prolonged absenteeism (Kogan, Luo, Brody, & Murry, 2005). In Sweden, different definitions and operationalisations of problematic absence from school are used. Legally, any unexcused absence from school is considered truancy and Swedish schools are obliged to contact caregivers at every occasion of

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unexcused absence. Furthermore, unexcused absenteeism is a growing problem in Sweden (Skolverket, 2010). A report from the Swedish School Inspectorate (Skolinspektionen, 2016) found that 43, 4 per 1000 students in grades 7–9 reported repeated unexcused absence, an almost 50% increase compared to 2009. Sporadic but recurring unexcused absence was defined as skipping at least five percent of class over a period of at least two months. In a study of poor school attendance in Swedish secondary schools, the Swedish national board of education (2010) found that 10% of students are unexcused absent at least once per month. This was also an increase of almost 50% compared to 2008.

Another way to utilize how the Swedish school system operationalizes problematic absenteeism is to examine how the study allowance is connected to school-attendance. In Sweden, all students attending upper secondary school has the right to study allowance from the Swedish Government authority in charge of financial aid for studies (CSN). Up until 2011, unexcused absence from class for 20% caused the CSN to withdraw the students study allowance. Earlier studies on problematic absenteeism in Sweden have therefor used 20% of unexcused absence as a cut-off level for when absenteeism is considered problematic (Strand, 2013). However, in the Education Act, that governs school activities in Sweden, from 2010 students school attendance was emphasized more strongly than before (SFS, 2010). Therefore, in 2011, the CSN changed their definition of problematic absenteeism so that four hours of recurring absenteeism during one month are cause for withdrawal of study allowance. Being absent four hours in 15 days is considered excessive absenteeism. According to the time-plan for the Swedish curriculum, this means that approximately 5% of unexcused absence over one month could be considered moderate absenteeism and 10% is considered excessive absenteeism. It is however important to note that both moderate and excessive absenteeism, as defined above, are considered problematic and both are cause for intervention from schools. In the school-year of 2015/16, 7, 8% of Swedish students in upper secondary school got their study allowance withdrawn (CSN, 2016).

The reasons for unexcused absence from school are several. Researchers suggest both individual and contextual factors. Factors that have been found to contribute to heightened risk of unexcused absenteeism are: mental health problems, high-risk life situations, being bullied in school, learning disabilities, living in a single household, negative relationships with teachers and a school environment that does not meet the students' needs, (Havik, Bru, & Ertesvåg, 2015; Karlberg & Sundel, 2004; Strand & Granlund, 2014; Witkow & Fuligni, 2011).

Students with high levels of unexcused absenteeism is a group were the prevalence of psychopathology, delinquency and substance use are substantially higher than in the normal population (Berg et al., 1993; Egger, Costello, & Angold, 2003; Henry & Thornberry, 2010; Hirschfield & Gasper, 2011). Furthermore, bidirectional effects of absenteeism and mental health have been illustrated in earlier research. For example, Wood et al. (2012) found that greater absenteeism in the first year of middle-school predicted an increased risk of depression and conduct problems in year two of middle-school. The opposite direction of effects was found for both middle and high school students. Hence, from a mental health perspective, absenteeism should be seen as a risk factor for psychopathology and as an expression of underlying psychiatric syndromes. Furthermore, mental health problems associated with absenteeism which, in Sweden, increase in 7th to 9th grade (Swedish National Agency for Education, 2008), has also been shown to persist into adulthood (Flakierska-Praquin, Lindstrom, & Gillb erg, 1997; Robins & Robertson, 1996, chap. xvi).

1.1. Child maltreatment and school-absenteeism

Shonk and Cicchetti (2001) suggest that negative impact of child maltreatment, especially in earlier stages of development, will be exacerbated in school due to the heightened requirement of social competencies, academic engagement, and ego-resiliency and ego control. In high school and early adolescence, the influence of child maltreatment might be even more accentuated since the demands on autonomy concerning social and academic skills increase while professional and parental supervision decrease. Accordingly, most studies find that problematic absenteeism typically debuts in high-school (Swedish National Agency for Education, 2008). It is therefore reasonable to suggest that maltreated youths in early adolescence are prone to be more sensitive to risk-factors resulting in absenteeism as well as to the negative outcomes of absenteeism (Shonk & Cicchetti, 2001). Indeed, commonly found correlates of absenteeism, such as psychosomatic symptoms, drug use, depression, anxiety-disorders, low self-esteem, and antisocial problems, closely match those of maltreated and abused children (Egger et al., 2003; Ek & Eriksson, 2013; Thornton, Darmody, & McCoy, 2013).

Child maltreatment and absenteeism can be regarded as multidimensional outcomes as well as risk-factors carrying multiple interacting causes and outcomes. As an outcome, absenteeism could for example be placed within the realm of equifinality (multiple pathways may lead to the same outcome) and as a risk factor, both absenteeism and child maltreatment draws on multifinality (similar risk factors may result in different outcomes; Cicchetti & Rogosch, 1996). Accordingly, academic failure in adolescents exposed to child maltreatment have been associated with a wide variety of factors such as increased levels of behaviour problems, depression and anxiety, cognitive deficits, impaired social skills, low self-esteem and motivation. (Eckenrode et al., 1993; Perfect, Turley, Carlson, Yohanna, & Saint Gilles, 2016; Shonk & Cicchetti, 2001).

Surprisingly few studies have, however, specifically focused on the relationship between child maltreatment and absenteeism. One exception is Slade and Wissow (2007) who found significant associations between maltreatment and absenteeism from school among adolescents. The results from Slade and Wissow (2007) indicate that maltreatment had impact on school performance mainly via emotional and/or behavioural problems of which school absenteeism was one sub-category.

In order to effectively tailor preventive interventions for absenteeism, there is a need to know more about adolescents who have been maltreated as a child and therefore are at higher risk of drop-out from school. There are for example, to our knowledge, no studies aimed to investigate the prevalence of child maltreatment among truants in a large general population of adolescents. Neither is there any studies analysing what (if anything) differentiates maltreated truants from non-maltreated truants.

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1.2. Current study

The overall aim of the current study was to investigate the relationships between unexcused absenteeism and child maltreatment in a general population of Swedish high school students. In the current study, we do not know the reasons for why the students have been absent. Since the term truancy imply an active decision of the student to not participate in lessons while the term unexcused absenteeism have no implications as to why the student has been absent, the terms moderate and excessive absenteeism will be used.

From this overarching aim, three research questions were formulated. First, we examined the prevalence of self-reported sexual, physical and emotional abuse, witnessing domestic violence and emotional/physical neglect among high-school students reporting no, moderate and excessive absenteeism in Sweden. This is, to our knowledge, the first study to address this question. Second, we examined whether absenteeism was related to sociodemographic variables, mental health symptoms, victimization in school, relationship to teachers and peer climate in classroom, as reported in earlier studies (Karlberg & Sundel, 2004; Strand & Granlund, 2014; Witkow & Fuligni, 2011). Third, we examined if mental health, perceived school climate and peer harassment differed between absentees who have been maltreated compared to non-maltreated absentees.

2. Methods

2.1. Study population

The sample included 1520 children and adolescents from the "Longitudinal Research on Development in Adolescence" (LoRDIA) program. LoRDIA is an on-going multidisciplinary prospective and longitudinal research program studying developmental pathways leading forward to alcohol- and drug use and mental health problems in a non-clinical population of Swedish adolescents from the age of 12–18. The study population does not differ from total high school population in regard to gender, age, ethnic background, school achievement and absence from school (Boson, Berglund, Wennberg, & Fahlke, 2016).

2.2. Procedure

Data has so far been collected via three annual surveys using pen and paper questionnaire in class-room settings. The surveys were administered by trained research assistants. To ensure confidentiality, questionnaires were assigned with codes instead of student's name. Before each survey, the social worker or school-nurse at each school was contacted and informed about the content of the questionnaire. Students were informed about eventual triggering questions in the questionnaire and were encouraged to contact the social worker or school- nurse if they experienced negative reactions. For the purpose of this study, data from the third wave of measurement including 667 girls and 649 boys (mean age 14.3) were used. Students were then in either 8th or 9th grade. The third wave of measurement was conducted September through October 2015 in 15 high schools in the south of Sweden. Out of the 1512 adolescents enrolled in the study, 204 were not present or declined participation at the time of the survey. The research programme and data collection details were approved by the Regional Research Review Board in Gothenburg (No. 362-13; 2013-09-25) and with approval confirmed for Wave 2 (2014-05-20) and Wave 3 (2015-09-02). For extensive description of the LoRDIA design and study population see Boson et al. (2016).

2.3. Measures

2.3.1. School absenteeism

Students reported absenteeism via self-report. The question was formulated as: Have you been truant from school this term (at least one whole day of unexcused absenteeism)? Responses were: No, this has not happened, A few times (1–3 times), Many times (4–10 times) and Very often (more than ten times). Since there are no mutual term or exactly defined amount of when unexcused absence is considered problematic in Sweden, definitions had to be constructed for this study. Both the CSN and the Swedish School Inspectorate define 5% of absence for at least one month as problematic absenteeism. The CSN define 10% absence as excessive absenteeism while the School Inspectorate do no such distinction. In some recent Swedish studies, 30% absenteeism has been used as a cut-off for excessive absenteeism. These studies however, focus on students with long, coherent absenteeism (Skolverket, 2010; Strand, Anbäcken, & Granlund, 2015; Strand & Granlund, 2014), an issue not addressed in the current study. Since data-gathering were administered one month into the term, one full day of unexcused absence this term equals five hours and about five percent of school-time. A school-day in high school in Sweden is a mean of five hours. Hence, response-option (1) means a range of 5–15% of unexcused absence, (2) 20–50% and (3) 50% or more. Therefore, in the current study, response-option (1) was defined as moderate absenteeism (n = 132) and response-options (2) and (3) was defined as excessive absenteeism (n = 39).

2.3.2. Childhood maltreatment

The Swedish version of the Childhood Trauma Questionnaire-Short Form (CTQ-SF; Bernstein et al., 2003; Gerdner and Allgulander, 2009) was used to measure experiences of childhood maltreatment. CTQ is a retrospective self-rating scale aiming to identify abuse and neglect during childhood, in teenagers and adults (Bernstein & Fink, 1994). Items on the CTQ are rated on a 5-point, Likert-type scale with response options ranging from (1) never true to (5) very often true. The CTQ has five subscales; physical abuse ($\alpha = 79$), sexual abuse ($\alpha = 0.79$), emotional abuse ($\alpha = 0.69$), physical neglect ($\alpha = 0.79$) and emotional neglect ($\alpha = 0.85$), which have been empirically verified (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997; Bernstein et al., 1994). For this

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article, an extra item was added measuring being witness to domestic violence. This item was formulated as: "when I was growing up I witnessed violence between adults in my home". The six child maltreatment categories were dichotomized. If a respondent reported scores above the cut-off as described in Bernstein and Fink (1998) for any level of physical abuse, sexual abuse or witnessing domestic violence, she/he was coded as having been exposed. For emotional abuse and emotional/physical neglect, only those adolescents reporting severe levels of maltreatment were coded as being exposed.

2.3.3. Mental health symptoms

Internalizing and externalizing symptoms were measured using the Swedish version of the Strengths and Difficulties Questionnaire (SDQ-S; Goodman, 1999, 2001; Smedje, Broman, Hetta, & von Knorring, 1999). The SDQ-S is a self- rating scale containing 25 items that screens for behavioural and emotional problems in children and adolescents. SDQ provides five problem-scales (Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, Peer Problems, and Total Difficulties) and one prosocial scale (Goodman, 1997, 1999, 2001) Out of the five scales we created a three factor model consisting of Internalizing (Emotional + Peer-problems), Externalizing (Conduct + Hyperactivity-Inattention) and Total difficulties scale (Internalizing + Externalizing). This procedure has been recommended when using the SDQ in low-risk, general population sample (Goodman, Lamping, & Ploubidis, 2010).

2.3.4. Psychosomatic symptoms

The Psychosomatic Problems Scale (PsP; Hagquist, 2008) was used in which questions are asked about difficulties to concentrate, difficulties falling asleep, headaches, stomach ache, feeling tense, bad appetite, feeling sad and dizziness. Response-options are: "never", "rarely", "sometimes", "often" and "always" ($\alpha = 0.91$)

2.3.5. Relationship to teachers

The students' perceptions of the quality of their relationship with their teachers were measured by three questions, using 4-point scales. The questions were as follows: Do your teachers like their students? Do your teachers care about the students? Do you think that your teachers are fair with the students ($\alpha = 0.87$)? Response options were: (1) almost all teachers like/care/are fair to the students to (3) there are many teachers that don't like/care/are fair to the students.

2.3.6. School problems

Children used 4-point Likert scales to answer four questions: Do you enjoy school? (A lot to not at all); Do you try to do the best that you can in school (mostly to almost never); How would you describe the relationship between you and school? ("Like best friends" to "like enemies"); Are you satisfied with your school work? (mostly to almost never; Kerr & Stattin, 2000; $\alpha = 0.71$).

2.3.7. Peer climate in class-room

Four questions formulated as: In our class (1) we help each other (2) we are kind to each other (3) we enjoy doing things together (4) nobody feels excluded. Answers ranged from 1(totally disagree) to 4 (totally agree; $\alpha = 0.82$).

2.3.8. Sexual harassment

A modified version of the sexual harassment scale (Marshall, Faaborg-Andersen, Tilton-Weaver, & Stattin, 2013) was used. The original 10-item scale was reduced to three items: Has anyone showed you offensive images, photos drawings or text-messages? Has anyone given remarks concerning your body in a sexual way that you didn't like? Has anyone touched your body against your will in a sexual way? Responses range from 1 (never) to 3 (often) and covered the last semester ($\alpha = 0.55$).

2.3.9. Personal harassment

A three-item scale assessing verbal harassment aimed at the adolescents personally were used. This scale is a modified version of the five-item personal harassment scale from Trifan and Stattin (2015). An example was: "Has anyone told you that you need to change in order to be accepted—for example, lose weight, change style, or the way you are?" Responses, which were on a three-point scale and covered the last semester, ranged from Never (1), to Often (3; $\alpha = 0.72$)

2.3.10. Ethnic harassment

A shortened version of the ethnic harassment scale (Bayram Özdemir & Stattin, 2014) was used. The three items were: Have you ever been teased in a mean way because of where you or your parents come from? Have you ever felt badly treated in school because of where you come from? Have anyone said nasty things to you because of where you come from? Responses, which were on a three-point scale and covered the last semester, ranged from Never (1), to Often (3; $\alpha = 0.85$).

2.3.11. Sociodemographic data

The following demographic variables were used: "living in a single household", "perceived family economy", and "being born in Sweden". "Perceived family economy" was measured via an index consisting of three questions: (1) "How is your economy compared to others were you live"? (2) "If you were to compare yourself with the others in your class — do you have less or more money to buy things for"? And (3) "If you want things that cost a lot of money, can your parents afford them if they think that you need them"? For question 1 and 2 response-options ranged from 1 to 5 and for question 3 from 1 to 3 with a lower number indicating a lower perceived family economy.

Table 1
Sociodemographic variables and child maltreatment in students reporting no, moderate and excessive absenteeism.

					Analysis of difference between no, moderate and excessive absenteeism	
	Total sample (%) $(n = 1285)$	No Absenteeism (%) (n = 1108)	Moderate Absenteeism (%) (n = 132)	Excessive Absenteeism (%) (n = 39)	X^2/F	p/phi
Sociodemographic factors						
Age (m)	14.3	14.3	14.4	14.3	2.16	0.122
Gender (% Girl)	52.1	52.4	45.8	51.2	2.04	0.361
Single household (% Yes)	26.5	22.8	39.8 ^a	51.2 ^a	32.85	.000/.16
Born in Sweden (% Yes)	86.3	94.8	87.5	92.7	11.45	.003/.09
Perceived Family Economy (% Yes) (We have less money then other families)	6.5	2.3	14.2 ^a	9.8	19.28	.001/.12
Child maltreatment (% Yes)						
Witness domestic violence	7.3	6	11.5	27.5 ^a	30.23	.000/.15
Sexual abuse	3.3	2.6	6.8 ^a	10 ^a	12.31	.002/.10
Physical abuse	13.1	11.6	22.9 ^a	25 ^a	18.3	.000/.12
Emotional neglect	11.3	9.5	19.7 ^a	33.3 ^a	31.83	.000/.16
Emotional abuse	7.7	6.8	11.5	20 ^a	12.5	.002/.10
Physical neglect	7.2	6	11.3	19.5 ^a	15.2	.001/.11
Total number of maltreatment experiences (% Yes)						
0	74.9	77.7	58.6 ^a	48.7 ^a	42.25	.000/.18
1	15.6	14.2	25 ^a	23.1		
2–6	9.6	8.1	16.4 ^a	28.2 ^a		

^a R > 1.96 = major contributor concerning the significant result.

2.4. Data analyses

One-way between groups ANOVÁs and chi-square tests for independence were conducted to compare mean scores or frequencies between students reporting no, moderate and excessive absenteeism for age, maltreatment, gender, perceived family economy, single household and being born in Sweden. Effect-sizes were calculated using the phi-coefficient. When the overall chi-square tests were significant, standardized residuals (R) was used to eventually detect a major contributor to the significant result. If R > 1.96 there was a major contributor concerning the significant result. Furthermore, we investigated differences in mental health and school-factors between absentees with a reported history of child maltreatment (at least one reported maltreatment experience) and those that reported absenteeism but no child maltreatment. Due to small sample size, the moderate and excessive absenteeism groups were merged into one group for these analyses. One-way between groups ANOVÁs were then conducted to analyse differences between students reporting no absenteeism, absenteeism without child maltreatment and absenteeism with child maltreatment concerning externalizing, internalizing and psychosomatic symptoms, relationship to teachers, peer climate in class-room, school problems and sexual, physical and personal harassment. Post-hoc comparisons using the Bonferroni test were conducted to compare differences in mean-scores between the three groups. Eta square was used as estimate of effect-size. The software package used in the statistical analyses was SPSS version 21.0.

3. Results

3.1. Characteristics among students reporting no, moderate and excessive absenteeism

Table 1 shows the sociodemographic characteristics and exposure to six child maltreatment experiences for the groups reporting no absenteeism, moderate absenteeism and excessive absenteeism. Results showed significant (df = 2, p < .01) differences between the groups concerning the following socio-demographic variables: living in a single household, born in Sweden and perceived family economy. Regarding living in a single household, both moderate and excessive absenteeism-groups were major contributors to the significant result. For perceived family economy, only the moderate group was a major contributor to the significant result. For being born in Sweden, there was an overall significant difference between the groups, but none of the groups was a major contributor to the significant result. There were no significant differences between the groups concerning gender and age. Concerning maltreatment, there were significant differences between the groups in all six types of child maltreatment (df = 2, p < 0.01) where maltreatment was more prevalent in groups reporting absenteeism. For sexual abuse, physical abuse and emotional neglect both moderate and excessive absenteeism-groups contributed to the overall significant result. For witnessing domestic violence, emotional abuse and physical neglect, only the excessive absenteeism group significantly contributed to the overall results. All effect sizes could be interpreted as small using Cohen's (1988, pp. 284-7) classification.

Table 2
Mental health, perceived school climate and harassment in school by none- absentees and maltreated/non-maltreated absentees.

	None-absentees ^a (n = 1108)	Not maltreated b absentees (n = 89)	Maltreated ^c absentees $(n = 87)$	F	p/eta square
Mental health					
Internalizing symptoms (0-20; m)	14.8 c*	15.21	17.12	16.92	.000/.03
Externalizing symptoms (0–20; m)	14.99 bc*	17.39	19.23	81.75	.000/.12
Psychosomatic symptoms (.9-1.6; m)	1.21 ^{c*}	1.25	1.34	21.72	.000/.03
Perceived school climate					
Relationship to teachers (3-9; m)	8.88 bc*	7.72	7	36.68	.000/.05
Peer climate in class (3-9; m)	12.24 ^{bc*}	11.40	11.01	13.02	.000/.02
School problems (3-9; m)	7.25 bc*	8.94	7.25	65.54	.000/.09
Harassment in school					
Sexual Harassment (3-9; m)	3.41 c*	3.53	3.83	9.25	.000/.01
Ethnic Harassment (3-9; m)	3.25 c*	3.45	3.85	19.12	.000/.03
Personal Harassment (3–9; m)	3.82 ^{c*}	4.01	4.66	16.05	.000/.02

^{* =} Significant differences between a) non—absentees and b) not-maltreated absentees and/or c) maltreated absentees at p < 0.01; Mean in bold letters = significant difference between not-maltreated and maltreated absentees at p < 0.01.

In Table 2 the students are differentiated in the following three groups: not absentees, maltreated absentees and not-maltreated absentees. The three groups were compared regarding mental health, peer harassment and perceived school environment. Results showed that not-absentees reported higher levels of being comfortable in school, positive relationship with teachers and a more positive peer climate and lower levels of externalizing symptoms compared to both groups of absentees (p < 0.001). In addition, the not-absentee-group reported significantly lower levels of the following: Personal, sexual and ethnic harassment and psychosomatic and internalizing symptoms compared to the maltreated absentees (p < 0.001) but not to not-maltreated absentees. All effect sizes could be interpreted as small using Cohen's (1988, pp. 284-7) classification.

4. Discussion

In the maltreatment literature, there is a substantial body of research linking experiences of child maltreatment with behaviour problems in school and academic underachievement (e.g. Zingraff et al., 1994). However, surprisingly few studies have included unexcused absenteeism and even more rare are studies were this is the main focus. This is notable since unexcused absenteeism has been found to be a major predictor of permanent school-dropout, grade-repetition and mental health problems. From another perspective, studies focusing on absenteeism have not included thorough measures of child maltreatment even though family factors, broadly defined, often are stated as being an important factor.

4.1. Child maltreatment among students reporting no, moderate and excessive absenteeism

In the present study, the prevalence of six types of child maltreatment among students reporting no, moderate or excessive unexcused absence, were investigated. It was found that all six types of maltreatment were overrepresented among adolescents reporting school-absenteeism compared to those who reported no absenteeism. This result was expected from a theoretical (Shonk & Cicchetti, 2001) as well as an empirical (Slade & Wissow, 2007) point of view. However, it should be noted that the effect-sizes were small. This is perhaps not surprising. School absenteeism is a complex, multidimensional problem were specific etiological triggers rarely are obvious (Kearney, 2008; Kearney & Bates, 2005). Accordingly, in line with earlier research (Karlberg & Sundel, 2004; Strand & Granlund, 2014), we found that school absentees reported more often living in a single household, being born outside Sweden and reported lower family economy than not-absentees. All three of these variables are potent risk-factors for child maltreatment and might cause the overrepresentation of child maltreatment in the groups of school-absentees found in this study. These relationships need to be further investigated in future research. However, prevalence of child maltreatment also increased with every level of absenteeism. This dose-response relationship might indicate a causal quality in the association between child maltreatment and absenteeism found in this study.

4.2. Difference in mental health and school factors between maltreated and not maltreated absentees

When examining differences between students reporting no absenteeism and those who reported absenteeism (with or without child maltreatment) in mental health problems, perceived school environment and peer harassment in school, we found that maltreated absentees reported more mental health symptoms, more personal harassment and a more negative relationship with their teachers than not-maltreated absentees. This might indicate that absentees with experiences of child maltreatment are an especially vulnerable group that might need tailored psychological interventions. Furthermore, all these variables are well known correlates of child maltreatment (Egger et al., 2003; Ek & Eriksson, 2013; Thornton, Darmody, & McCoy, 2013).

Students reporting both maltreatment and absenteeism also reported higher levels of internalizing, externalizing and psychosomatic symptoms compared to both none-absentees and not-maltreated absentees. However, we do not know in what way

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absenteeism contributes to these elevated levels of mental health in maltreated absentees. We know from an earlier study of ours, on the same sample used in this study, (Hagborg, Tidefors, & Fahlke, 2017) that the commonly reported high levels of mental health problems among adolescents with experiences of child maltreatment also were present in the current sample. Hence, it is possible that the difference between maltreated and not-maltreated absentees concerning mental health problems can be explained by differences in baseline between the two groups found in our earlier study (Hagborg et al., 2017).

Furthermore, not-maltreated absentees report higher levels of externalizing symptoms compared to none-absentees. Hence, high levels of externalizing symptoms could be a shared factor for both maltreated and non-maltreated adolescents while internalizing and psychosomatic symptoms seem to be more common among maltreated truants. Possible pathways from child maltreatment to absenteeism via psychosomatic and internalizing symptoms could thus be an important task for future research.

Negative relationships with teachers could be attributed to the many relationship disadvantages common in maltreated children (Doyle & Cicchetti, 2017). Earlier studies, focusing on maltreated adolescents relationships with "important others" outside the family, have found mixed results (Lynch & Cicchetti, 1992). Since this study is a cross-sectional, we do not know the direction of the observed relationship between maltreatment and negative relationships with teachers. It is of course possible that a high level of absenteeism leads to more negative interactions with teachers. However, results from this study indicate that maltreated adolescents perceive a more negative relationship with their teachers compared to another high-risk, not-maltreated group. This is an important finding since positive relationships with teachers have been found to be predictive of motivation in school, problematic absenteeism and mental health problems (Blomgren, 2016; Ellonen, Kaariainen, & Autio, 2008; Witkow & Fuligni, 2011).

Victimization in school has been found in previous studies to be a major predictor for school-absenteeism (e.g. Karlberg & Sundel, 2004). However, in this study, only the maltreated absentees reported significantly more peer victimization compared to not-absentees. The higher degree of personal harassment among maltreated absentees might be attributed to the increased risk of revictimization following earlier maltreatment and many studies have shown a relationship between exposure to child maltreatment and subsequent victimization in school (Holt, Kantor, & Finkelhor, 2009; Hosser, Raddatz, & Windzio, 2007; Smith, 2017). Theoretically, the associations between child maltreatment, mental health and school factors in the current study were expected.

4.3. Limitations

There are some limitations of this study that needs to be mentioned. First, the data rely on self-report. Hence, it is possible that absenteeism could be over or under-estimated in this study. However, due to inconsistent reporting practices in schools, self-report might be the best estimates of absenteeism (Henry, 2007). Second, attrition-analyses from earlier studies performed on the same sample as in the present study have shown that boys, single parent household and externalizing symptoms are overrepresented in the attrition-group (Hagborg et al., 2017). Since high levels of externalizing symptoms and living in a single household have been shown to have a significant relationship with absenteeism in this study, it is possible that an inclusion of the attrition-group would have influenced our results. Third, since this is a cross-sectional study, we do not know the direction of relationships between the investigated variables. We know from earlier studies (Wood et al., 2012) that the relationship between absenteeism and mental health is bidirectional. It is also possible that absenteeism could influence relationship with teachers in a negative way. Further studies are needed in order to utilize the direction of these variables in respect to child maltreatment. Fourth, the item used in this study to measure unexcused absenteeism do not provide us with the reasons for the participants were intentionally missing school. Earlier studies have shown that various stressors trigger unexcused absence. These include for example family dynamics, parental divorce, traumatic events, changes in school-setting and illness (Kearney & Bates, 2005). However, our results are partly in line with this earlier research since parental divorce and traumatic events were significantly more common among absentees. Last, since we rely on self-report for child maltreatment experiences, the possibility of underreporting must be considered.

4.4. Implications for practice

Results from the current study indicate a necessity of not only acknowledging absenteeism in maltreated adolescents but also treat absenteeism as a phenomenon in need of a trauma informed perspective. Possibly, trauma-informed perspectives and models could inform professionals working with absenteeism about the specific ways in which maltreatment and trauma interferes with school functioning. For example, students with Post traumatic stress disorder, a common diagnosis among maltreated children, have been found to struggle with intrusive images when working on tasks that demand high levels of concentration (Broberg, Dyregrov, & Lilled, 2005). Such trauma-specific factors risks not being understood and treated properly if maltreatment is not known. This could result in interventions failing to bring back maltreated adolescents to school. Furthermore, the overrepresentation of maltreatment-experiences among absentees found in this study should be taken into consideration when designing and choosing screening instruments for absenteeism —interventions. Since school-performance, both social and academic, holds the inherent possibility to both promote resilience and magnify negative developmental pathways for maltreated adolescents, establishing trauma-informed prevention and treatment programs for school-absentees should be made a prioritized concern for schools and other involved agencies.

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