

Child physical abuse, declining trend in prevalence over 10 years in Sweden

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Abstract

Aim: To study trends in prevalence and risk factors of child physical abuse over 10 years in Sweden.

Methods: This study analysed responses from school surveys in 2008, 2011, 2014 and 2017 in Södermanland County, Sweden with average 5125 respondents per year, 15 and 17 years old. There were identical questions on exposure to violence and risk factors including parental employment, separated parents, disability or disease, foreign background and lack of adult support. Intimate partner violence was included at three occasions. Data were analysed with bi- and multivariate models, and mean of accumulated risks were compared.

Results: Child physical abuse decreased significantly between 2008 and 2017. Repeated abuse decreased to a less degree than abuse once. In bivariate analyses, the share of risk factors declined for those exposed to physical abuse. In multiple analyses, it was found significant associations with exposure. There was and a dose-relationship between numbers of accumulated risk categories and self-reported abuse.

Conclusion: Exposure to child physical abuse decreased substantially between 2008 and 2017. However, prevalence of abuse is still unacceptable, and the finding that prevalence of the more severe forms of CPA decreased less during the same time, draws attention to the need of ongoing efforts.

KEYWORDS

child abuse, intimate partner violence, prevalence, risk factors, trends

1 | INTRODUCTION

Child physical abuse (CPA) against children is a public health problem that affects children around the world, regardless of the economic development level of the country.¹ Young people exposed to child physical abuse perpetrated by parents or caregivers face

an increased risk of poor health as well as of adult morbidity and mortality compared to young people who have not been exposed to these situations.²⁻⁷ Ending violence against children is an important public health task. In 2015, the United Nations adopted the 2030 Agenda, 17 global goals for sustainable development, with cessation of violence against children as one of the sub-goals.

Abbreviations: CPA, Child physical abuse; IPV, Intimate partner violence.

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A complex interaction of factors on different levels, including living conditions, attitudes to corporal punishment, societal laws, regulations, and child and parent characteristics determine risk of exposure to CPA.^{1,3,8,9} Annerbäck et al showed that risk accumulates when four categories of factors are concurrent: perpetrator factors, socio-economic stress factors on the family, insufficient social network factors and child factors.^{9,10}

In 1979, Sweden was the first country in the world to outlaw corporal punishment against children; since then, all violence against children has been regarded as a crime. This means that also less serious types of violence as spanking are regarded as CPA and are punishable according to Swedish criminal law. Attitudes towards physical punishment and use of violence to rear children have changed markedly in the last 50 years and especially after the law was passed.¹¹⁻¹³ The Swedish National Council for Crime Prevention has documented a continuing rise in police reports of physical assault against children. It should, however, be noted that this includes not only assault perpetrated by caregivers but also by other young people at school and in their free time, and by adults other than caregivers.¹⁴ Self-reported experience of violence from children most likely describe the actual magnitude of CPA.³ Previous Swedish surveys used parents as informants^{15,16} but since all violence against children is now considered a crime and thereby taboo, responses from parents are likely to underestimate the prevalence. The first survey on self-reported CPA from children in Sweden was performed in 1994-1995 and showed that about 30% of the respondents aged 13-16 years had been exposed to physical violence by a parent or a caregiver.¹⁶ In 2016, Janson et al observed that about 14% of 15- and 17-year-old respondents reported previous exposure to CPA; of these, 5% reported repeated abuse.⁷ The authors concluded that CPA prevalence seemed to have decreased compared with results from previous years but they also claimed that the result must be interpreted with caution as the included questions differed in between the years.⁷

Studies of trends in prevalence are rare, although this is the only way to follow how and to what extent CPA prevalence is changing. A study in Germany compared two nationwide population-based samples of adolescents aged 14 years and older in 2010 and 2016. The study found no significant difference in CPA prevalence between these two samplings.¹⁷ Analyses of data from two prevalence studies in Vietnam in 2004 and 2014 found a decrease in CPA from 74% to 62%.¹⁸ In the United States, Finkelhor et al compared rates of corporal punishment in 2014 with surveys from 1975 to 1985. They found a decline in the proportion of children subject to corporal punishment. The prevalence rate for children 10-17 years old was 23% in 2014 whereas there was a higher prevalence among younger

Key Notes

- The prevalence of child physical abuse is decreasing in Sweden, although severe abuse is decreasing less than occasional abuse.
- Children who report risk factors report declining shares of exposure to abuse.
- Individually based interventions are needed to further counteract child physical abuse when children are at risk.

children. However, this study covered only past year experiences of abuse and did not include other types of CPA than corporal punishment.¹⁹ As the prevalence of CPA seems to decline in Sweden as well as internationally, our aim was to study a 10-year trend in the prevalence of CPA in Sweden and to examine whether concurrent changes in associated risk factors might explain any changes in prevalence.

2 | MATERIALS AND METHODS

All schools in the county with pupils in grade 9 of compulsory school and grade 2 of upper secondary school (15 and 17 year sold) in Södermanland County, Sweden, were invited to participate in a population-based study in 2008, 2011, 2014 and 2017. The Centre for Public Health conducted the study in collaboration with the Centre for Clinical Research at Södermanland County Council. School employees managed questionnaire distribution and collection. The questionnaires were completed in classrooms during school hours. All responses were anonymous and returned in sealed envelopes. The children were informed orally and in writing about the purpose of the study, and that they could refuse to participate in the study or drop out at any time. Parents were informed, but parental consent was unnecessary since in Sweden, children aged 15 years and older have the legal right to make their own decisions in these types of matters.

2.1 | Study population

Table 1 presents information about respondents and about the schools not participating. The response rates for grade 9 and grade 2 were 84%/78% in 2008; 84%/77% in 2011; 85%/84% in 2014; and

TABLE 1 Descriptive statistics of all study groups

	2008	2011	2014	2017
Grade 9 (15 y)	3142 (84%) ^a	2762 (84%) ^a	2271 (85%) ^a	2701 (84%) ^a
Grade 2 (17 y)	2798 (78%) ^a	2781 (77%) ^a	2381 (84%) ^a	2317 (82%) ^a
Non-participating schools	128 (1.8%) ^b	63 (0.9%) ^b	271 (4.9%) ^b	182 (3.0%) ^b

^aNumber and percentages of respondents per year.

^bNumber and percentages of pupils in schools not participating.

84%/82% in 2017. In participating schools, the dropouts comprised mainly children who were absent, most likely due to illness or truancy on the days the survey was made. Non-respondents received a second opportunity to take the survey. The final sample included 20 500 children whereof 5815 in 2008; 5440 in 2011; 4460 in 2014; and 4785 in 2017. Numbers of individuals in the different analyses vary due to internal dropout on some items.

2.2 | The questionnaires

The population surveys were designed to collect data on the health and living conditions of young people. Similar surveys with various minor modifications were made at six time points. The 2008, 2011, 2014 and 2017 surveys had two identical questions on child exposure to violence; the 2008, 2011 and 2017 surveys had one question about intimate partner violence (IPV) in the families. The questions on violence were based on previous national Swedish studies.^{4,10}

Södermanland County had a population of 267 500 in 2008 and 290 700 persons in 2017. The share of foreign-born individuals was 2% higher in 2017 than the Swedish national average and increased from 17% in 2008 to 26% in 2017. Compared with national averages, unemployment in Södermanland was 2% higher, and the percentage of children living in low-income households were about 3% higher.^{20,21}

2.3 | Definitions

Child is defined as a person under the age of 18 years.

Child physical abuse was defined as physical violence against a child executed by a parent or by a person who has parental responsibility for a child.

Child physical abuse was indicated if the child responded "Yes, once" or "Yes, more than once" to the question "Have you been slapped on the ear/been beaten by an adult?" and if they reported that they had been exposed by a parent or other caretaker on the following question "By whom have you been slapped on the ear/been beaten?"

2.4 | Risk factors

Parents' unemployment was queried with the question "What is your mother's/father's employment?". Responses were dichotomised into (a) both parents employed and (b) one or both parents unemployed/on sick leave.

Child living with separated parents was investigated with the question "Who do you live with?" Responses were dichotomised as (a) living with both biological parents and (b) living with separated parents.

Intimate partner violence was indicated if the child responded "Yes" to the question "Has violence occurred between adults in your family?"

Physical disability was indicated if the child had responded "Yes, severe" to one or more of the questions on impaired hearing, vision or motor function.

Psychological disability was indicated if the child responded "Yes, severe" to the question on dyslexia and "Yes, mild" or "Yes, severe" to attention deficit hyperactivity disorder.

Chronic disease was indicated if the child responded "Yes, severe" to one or more of the questions on asthma, allergy, diabetes, epilepsy and intestinal disease.

Foreign background was dichotomised as (a) Swedish background, if ≥ 1 parent born in Sweden and (b) foreign background if the respondent was born abroad and/or both parents were born abroad.

Lack of adult support was indicated if the child responded "No" to the question "Is there any adult person with whom you can talk about things that concern you?"

2.5 | Statistical analyses

Data were analysed using the Statistical Package for Social Sciences, SPSS (Windows ver. 22.0; IBM). Descriptive statistics are reported in numbers and percentages. Associations between risk factors and CPA were estimated with multiple logistic regression analyses in two steps. First, forward stepwise models for each year identified factors that were independently associated with CPA: parent's employment, separated parents, child with physical or psychological disability, child with chronic disease, foreign background and lack of adult support. Second, occurrence of CPA was included as a dependent variable and the factors that remained significant in the first step were included as independent variables for each year. In the first step, gender and school grade were not significant. All independent variables were entered simultaneously in the next step. The same procedures were performed for IPV as one of six independent variables for the years when these data were available. When IPV was present, physical disability and chronic disease were not significant in the first step. Results are presented with adjusted odds ratios (aOR) and 95% confidence intervals (CIs).

Accumulation of risk factors for CPA was tested in a three-factor model for all years and in a four-factor model for the years that included IPV. Annerbäck et al described these models previously.^{9,10} The model comprises categories in four areas of factors that pose a risk for CPA: (a) person/-s with a tendency to use violence in conflict situations such as IPV, (b) socio-economic stress and strain on the family, including parental unemployment, separated parents and foreign background, (c) insufficient social network (lack of adult support) and (d) child factors (child disability or disease). To compare means between groups, the one-way ANOVA and Tamhane's post hoc test were used.

2.6 | Ethical considerations

Questions about violence may be distressful for the participants and especially for victims of violence. Participants were given

information in the questionnaires about where to get counselling if participation had caused feelings of distress.

The Regional Ethics Review Board in Linköping approved the study (Daybook no. M180-08, 2012/45-32 and 2016/258-32).

3 | RESULTS

3.1 | Prevalence

Reported exposure to CPA has continuously decreased between 2008 and 2017. In 2008, 18.2% of the children reported that they had been slapped on the ear/been beaten by an adult once or more often. In 2017, prevalence of CPA had decreased to 13.2% ($P < .001$). Both CPA once as well as repeated exposure to CPA decreased significantly during this period. In 2008, 10.5% reported CPA once, but in 2017, the figure had dropped to 6.8%. Repeated exposure to CPA also decreased, from 7.7% in 2008 to 6.4% in 2017 ($P < .001$; Figure 1).

Table 2 presents characteristic factors in different exposures to CPA. There was a declining trend of reported CPA among them who reported risk factors, parent's unemployment, separated parents, presence of IPV, disability/disease, foreign background and lack of adult support.

3.2 | Associations between risk factors and CPA

Table 3 presents associations between risk factors and exposure to CPA from multiple logistic analyses. Most risk factors increased the risk of children being abused once, and more than once, independent of the survey year. One of the seven studied risk factors, lack of adult support, was significantly associated with CPA once and CPA more than once in all four surveys. In three of the four survey years, three other factors were significantly associated (separated parents, parental unemployment and psychological disability) with being abused once. Corresponding figures for CPA more than once was four of seven factors with significant associations in all four survey years (foreign background, separated parents, psychological disability and lack of adult support).

Table 4 presents associations when IPV in the family was included in the multiple logistic analyses. In these analyses, adolescents who reported IPV showed the strongest associations to also report exposure to CPA compared to other risk factors.

3.3 | Accumulation of risk factors

Number of risks was determined for each child according to the categories found to have a significant association with CPA: socio-economic stress on the family, insufficient social network, child with disability and/or chronic disease, and occurrence of IPV and mean values were calculated. These categories included a total of eight different risk factors. In all survey years, the dose-response

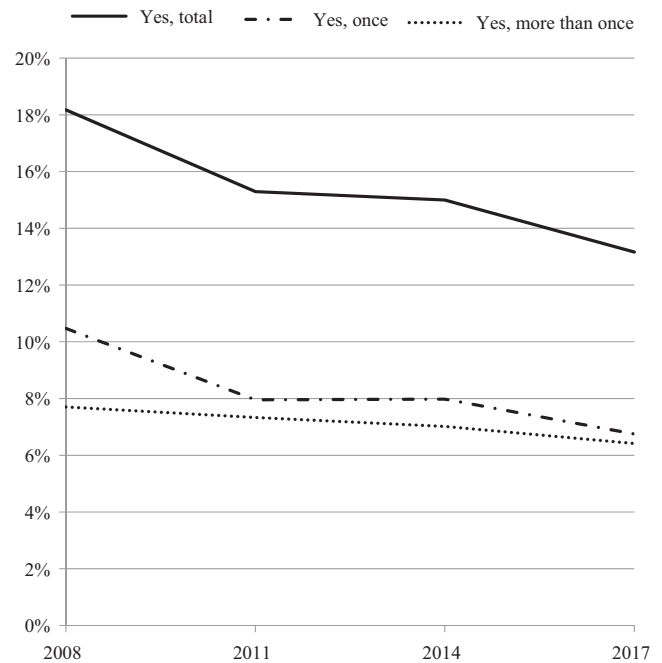


FIGURE 1 Prevalence of self-reported child physical abuse from years 2008^a, 2011^b, 2014^c and 2017^d. Answer to the questions “Have you been slapped on the ear/or been beaten by an adult?”. ^a2008: Yes, once:10.5%; Yes, more than once 7.7%. ^b2011: Yes, once: 8.0 (7.95)%; Yes, more than once: 7.3%. ^c2014: Yes, once: 8.0 (7.98); Yes, more than once: 7.0%. ^d2017: Yes, once: 6.8%; Yes, more than once: 6.4%

relationship between mean values of number of risk categories and reported CPA was consistent. Children reporting no CPA increased from a mean 0.68 categories per person in 2008 to a mean 0.81 risks per person in 2017. Those who reported CPA once, increased from a mean 0.87 in 2008 to a mean 1.07 in 2017, and those who reported CPA more than once, ranged from a mean 1.17 risks in 2008 to a mean 1.34 risks in 2017 (Figure 2). Including IPV in the analyses yielded a similar dose-response pattern (Figure 3). Between-group differences were significant when comparing group means ($P < .001$) and over all categories ($P < .001$).

4 | DISCUSSION

The present study is one of the first Swedish studies to investigate a 10-year trend in CPA prevalence in Sweden. This study is also one of the first to examine associations of CPA with risk factors and determine whether changes in these explain changes in prevalence. Four main findings emerged.

The most important result of the study was the substantial and gradual decrease in proportions of respondents (15 and 17 years old) reporting CPA, from 18.2% in 2008 to 13.2% in 2017. Further, the study found that the largest reduction occurred in reports of having been slapped or beaten once, with repeated violence also declining significantly, although to a smaller degree. These

TABLE 2 Characteristics of child physical abuse (CPA) perpetrated by parents or other caretakers presented as numbers and percentages of respective group (n (%)).

Characteristics	2008 (n = 5815)			2011 (n = 5440)			2014 (n = 4460)			2017 (n = 4785)		
	No CPA	CPA once	CPA > once	No CPA	CPA once	CPA > once	No CPA	CPA once	CPA2 > once	No CPA	CPA once	CPA > once
Total group	4758 (81.8)	609 (10.5)	448 (7.7)	4608 (84.7)	433 (8.0)	399 (7.3)	3791 (85.0)	356 (8.0)	313 (7.0)	4155 (86.8)	323 (6.8)	307 (6.4)
Grade 9 (≈15 y)	2482 (80.8)	354 (11.5)	234 (7.6)	2314 (85.4)	205 (7.6)	190 (7.0)	1869 (86.5)	146 (6.8)	145 (6.7)	2233 (87.4)	169 (6.6)	152 (6.0)
Grade 2 (≈17 y)	2276 (82.9)	255 (9.3)	214 (7.8)	2294 (84.0)	228 (8.3)	209 (7.7)	1922 (83.6)	210 (9.1)	168 (7.3)	1922 (86.1)	154 (6.9)	155 (6.9)
Boy	2416 (82.5)	302 (10.3)	210 (7.2)	2376 (85.8)	196 (7.1)	198 (7.1)	1905 (84.3)	186 (8.2)	168 (7.4)	2055 (86.0)	171 (7.2)	163 (6.8)
Girl	2338 (81.2)	306 (10.6)	237 (8.2)	2220 (83.7)	232 (8.8)	199 (7.5)	1872 (85.8)	167 (7.7)	142 (6.5)	1986 (88.4)	141 (6.3)	120 (5.3)
Parent's unemployment	880 (74.8)	158 (13.4)	138 (11.7)	836 (77.1)	127 (11.7)	122 (11.2)	634 (79.6)	72 (9.0)	90 (11.3)	636 (80.6)	82 (10.4)	71 (9.0)
Living with/separated parents	1599 (77.7)	267 (13.0)	191 (9.3)	1516 (80.9)	195 (10.4)	164 (8.7)	1282 (81.1)	155 (9.8)	144 (9.1)	1407 (85.5)	119 (7.2)	120 (7.3)
Presence of Intimate partner violence	304 (41.7)	199 (27.3)	226 (31.0)	264 (45.4)	132 (22.7)	186 (32.0)	No data	No data	No data	288 (53.0)	108 (19.9)	147 (27.1)
Physical disability	61 (64.9)	12 (12.8)	21 (22.3)	54 (81.8)	4 (6.1)	8 (12.1)	43 (59.7)	10 (13.9)	19 (26.4)	62 (73.8)	4 (4.8)	18 (21.4)
Psychological disability	175 (63.9)	38 (13.9)	61 (22.3)	221 (63.5)	54 (15.5)	73 (21.0)	276 (69.0)	48 (12.0)	76 (19.0)	500 (77.5)	66 (10.2)	79 (12.2)
Chronic disease	270 (72.0)	42 (11.2)	63 (16.8)	269 (77.1)	38 (10.9)	42 (12.0)	269 (79.8)	31 (9.2)	37 (11.0)	312 (79.0)	38 (9.6)	45 (11.4)
Foreign background	572 (72.4)	104 (13.2%)	114 (14.4)	713 (75.9)	101 (10.7)	126 (13.4)	777 (82.1)	75 (7.9)	94 (9.9)	997 (81.6)	84 (6.9)	141 (11.5)
Lack of adult support	399 (66.3)	79 (13.1)	124 (20.6)	391 (72.8)	55 (10.2)	91 (16.9)	355 (72.0)	66 (13.4)	72 (14.6)	304 (74.7)	41 (10.1)	62 (15.2)

TABLE 3 Associations between characteristics and child physical abuse once (CPA1) and child physical abuse more than once (CPA2). Presented results are based on multivariate analyses^a with aOR and 95% CI

	2008		2011		2014		2017	
	CPA1	CPA2	CPA1	CPA2	CPA1	CPA2	CPA1	CPA2
Parent's unemployment	1.45 (1.16-1.80)**	1.37 (1.05-1.78)*	1.45 (1.11-1.90)**	1.12 (.83-1.50)	1.09 (.78-1.52)	1.55 (1.12-2.15)*	2.06 (1.47-2.87)***	96 (.64-1.45)
Child living with sep. parents	1.50 (1.24-1.81)***	1.67 (1.33-2.10)***	1.90 (1.51-2.40)***	1.73 (1.34-2.22)***	1.53 (1.18-1.99)**	1.72 (1.29-2.29)***	1.12 (.83-1.51)	2.09 (1.50-2.90)***
Physical disability	1.18 (.53-2.60)	1.35 (.61-2.99)	.58 (17-1.97)	.82 (.30-2.29)	1.91 (.77-4.75)	3.44 (1.63-7.23)**	.80 (.24-2.61)	1.64 (.66-4.08)
Psychological disability	1.51 (.98-2.31)	2.16 (1.39-3.38)**	2.24 (1.50-3.34)***	3.63 (2.50-5.28)***	1.69 (1.13-2.52)*	3.59 (2.50-5.15)***	1.70 (1.17-2.47)**	2.64 (1.79-3.91)***
Chronic disease	1.06 (.72-1.58)	1.98 (1.35-2.90)***	1.71 (1.14-2.56)*	1.95 (1.28-2.97)**	1.44 (.95-2.20)	1.02 (.61-1.70)	1.38 (.86-2.21)	2.14 (1.34-3.42)**
Foreign background	1.39 (1.07-1.81)*	2.03 (1.52-2.70)***	1.71 (1.28-2.28)*	2.76 (2.07-3.68)***	1.13 (.80-1.58)	2.1 (1.52-2.91)***	1.09 (.78-1.55)	3.74 (2.65-5.26)***
Lack of adult support	1.65 (1.24-2.20)**	3.49 (2.65-4.60)***	1.52 (1.07-2.15)*	2.99 (2.19-4.08)***	2.21 (1.58-3.10)***	2.33 (1.63-3.34)***	1.65 (1.04-2.63)*	2.88 (1.86-4.45)***

Abbreviations: aOR, adjusted odds ratio; CI, Confidence interval.

^aAll seven variables were entered simultaneously in a multiple logistic regression model.

*P < .05

**P < .01

***P < .001

TABLE 4 Associations between child physical abuse and characteristics including presence of intimate partner violence in the family (IPV). Presented results are based on multivariate analyses^a with aOR and 95% CI

	2008		2011		2017	
	CPA1	CPA2	CPA1	CPA2	CPA1	CPA2
Parent's unemployment	1.25 (0.99-1.58)	1.79 (1.13-2.85)*	1.32 (0.99-1.73)	3.04 (2.03-4.54)***	1.71 (1.21-2.41)**	1.96 (1.33-2.90)**
Child living with separated parents	1.16 (0.94-1.41)	1.19 (0.93-1.53)	1.62 (1.27-2.07)***	1.29 (0.98-1.69)	0.82 (0.60-1.12)	1.38 (99-1.93)
Psych. Disability	1.43 (0.94-2.18)	1.79 (1.19-2.71)**	1.88 (1.24-2.83)**	1.45 (0.90-2.32)	1.28 (0.88-1.87)	1.96 (1.22-3.15)**
Foreign background	1.48 (1.13-1.94)**	2.28 (1.68-3.09)***	1.60 (1.19-2.15)**	2.46 (1.83-3.33)***	1.60 (0.75-1.50)	3.40 (2.44-4.75)***
No adult support	1.50 (1.11-2.03)**	3.25 (2.39-4.41)***	1.28 (0.89-1.84)	2.44 (1.74-3.42)***	1.72 (1.09-2.72)*	1.96 (1.24-3.11)**
Intimate partner violence	6.23 (4.92-7.88)***	12.05 (9.26-15.68)***	5.55 (4.18-7.37)***	11.64 (8.80-15.40)***	6.58 (4.66-9.31)***	8.20 (5.73-11.74)***

Abbreviations: aOR, adjusted odds ratio; CI, Confidence interval.

^aAll sex variables were entered simultaneous in a multiple logistic regression model.

*P < .05.

**P < .01.

***P < .001.

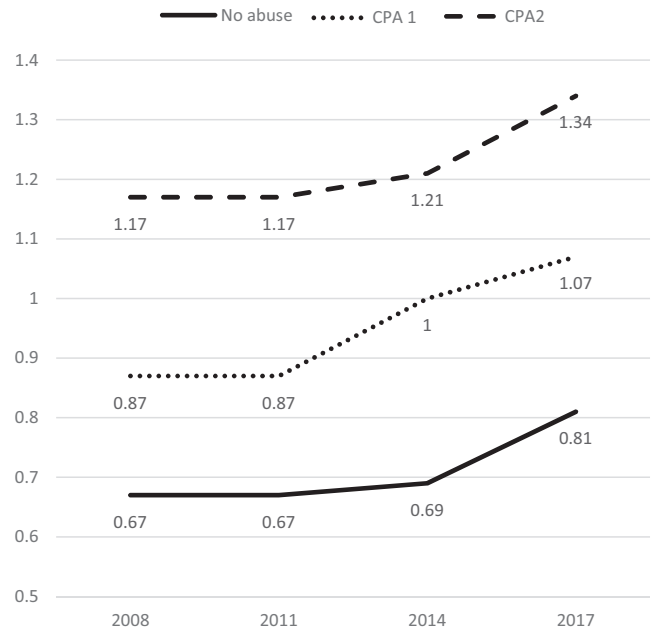


FIGURE 2 Accumulated risk within four areas (mean as calculated per child) including IPV. Socio-economic stress; Insufficient social network; Child factors

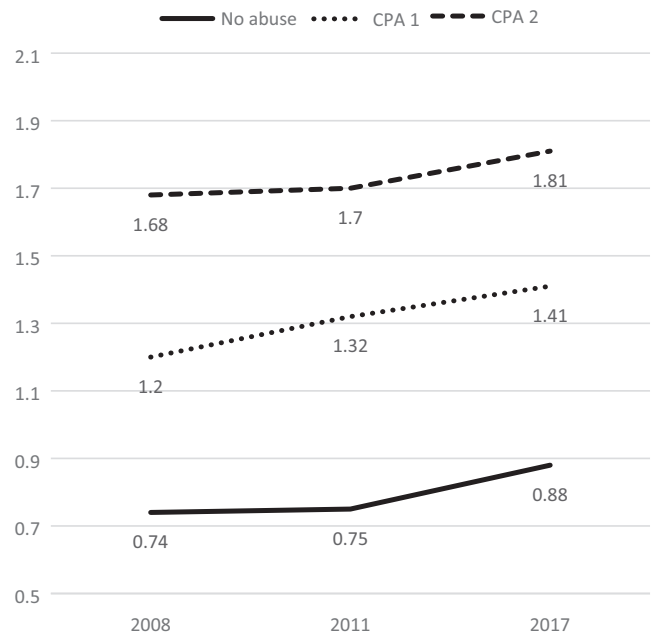


FIGURE 3 Accumulated risk within four areas, including IPV (Mean as calculated per child). Person/s with a tendency to use violence in conflict situations; Socio-economic stress; Insufficient social network; Child factors

decreases in prevalence are in line with previous studies in Sweden that have found reductions in child-reported CPA since 1995 when more than 30% reported exposure to physical abuse. Other studies have found that this decrease has continued.^{7,11,12,15,16,22} However, the decrease in repeated CPA has not been of the same size as in CPA once. Studies from Vietnam and the United States

also found a decline in prevalence in similar population groups while a German study did not.¹⁷⁻¹⁹

The second major finding was that there are declining shares of reported CPA among children in different risk factor groups. We examined eight risk factors: parental unemployment, separated parents, child physical or psychological disabilities, child chronic disease, foreign background, lack of adult support and IPV. With minor differences between years, the trend over time in the share of children in each risk factor group who reported CPA were declining.

Third, the results of the multiple logistic regression analyses found that the risk factors are consistently associated with exposure to CPA throughout the 10-year period and that the number of risk factors and self-reported experience of CPA has a dose-response relationship. Furthermore, the mean numbers of reported risk categories showed a dose-response association with the degree of exposure. This confirms the results of other studies in Sweden regarding risk factors associated with CPA.^{3,9,10,23}

Fourth, the results can only partially explain the decline in CPA prevalence. The finding of declining shares of reported CPA among children reporting risk factors implies that even when families are under psychosocial stress, children now are exposed to less violence than before. However, the data in this study only cover some personal characteristics of the parents, children and their immediate network, but relevant factors on other levels were not explored. In the 1980s, Belsky constructed an ecological model of interactive factors to explain the aetiology of CPA.²⁴ Besides personal characteristics, the Belsky framework emphasises the importance of societal services in childcare and child health organisations and at the highest level, macro-system factors such as legislation and social attitudes towards violence against children.^{1,3,8,12,24} The Vietnamese study found a decline from relatively high prevalence rates of physical abuse in Vietnam: 74% in 2004 to 62.2% in 2014.¹⁸ They highlight the increase in economic prosperity, cultural changes in child-rearing, and changed norms and practices concerning parenting as possible reasons for the decline. One US study pointed out that more information about the possible harm of spanking, improved conditions for families like reduced family size, and fewer young people becoming parents as factors that might improve parenting styles.¹⁹ One interpretation of the decrease in CPA prevalence in Sweden is that it is due to changes in society and in attitudes to violence against children, although we have no empirical evidence for this.¹² In Sweden, there has been a great consensus about the negative consequences of violence against children among parents, the public and among professionals and this has been strengthened over the years. Further, establishment of Swedish governmental policies and national centres, campaigns to affect professional and public awareness, and educational efforts have contributed to transparency in recognising and responding to CPA.^{7,12,13,15} The rise in number of police reports concerning physical assault against children, as shown in the criminal statistics, might also be interpreted similarly, as

a sign of greater vigilance and lower tolerance of child physical abuse, and as a belief that Swedish authorities are able to handle these issues appropriately.

Monitoring the prevalence of CPA is essential for developing effective strategies of prevention and intervention that can be used by political decision makers, public health employees and professionals who are involved with children and their families. Establishing prevalence of child abuse is not a straightforward process since prevalence figures also reflect the limitations of the study design, including the definitions used and the cultural context of the cohort.^{3,12,25} Thus, caution is necessary when comparing different studies, each country must regularly conduct surveys on child exposure to physical abuse using instruments that allow comparisons between time points.

One strength of this study is that the data derived from four similar-school surveys of 15- and 17-year-olds; the data were collected over 10 years and comprised large samples and high response rates. These results might be generalisable to children in Sweden since differences in significant socio-economic conditions between Södermanland County and the national Swedish average are minor. However, this needs to be explored more in future studies. Another strength is that, except for IPV which was not included in the 2014 questionnaire, the questions on abusive experiences were the same during the study period. Further, CPA was measured from a lifetime perspective giving a picture of the total burden of experienced violence while growing up. There are, however, also limitations with self-reported lifetime experiences since the figures probably are reduced because of recall bias.

Another strength of the present study implies the use of anonymous questionnaire in the school situation, away from home and without parental immediate influence. This provides a possibility to get information about the real extent of children's exposure.

In conclusion, the present study found a continuous decrease in the prevalence of physical abuse of children in Sweden during a recent 10-year period, suggesting that preventive work against violence has been successful. However, the finding that the prevalence of the more severe forms of CPA decreased less during the same time draws attention to the need of further prevention and interventions. CPA prevalence is still unacceptable, and since CPA has serious consequences for health and well-being during childhood and adolescence, continuing education of professionals and monitoring of the future development are needed.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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