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## Psychological and physical abuse towards four-year-old children as reported by their parents: A national Finnish survey

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### ABSTRACT

**Background:** In Finnish society, child maltreatment is a health and social problem with harmful consequences. Identifying families at risk may help preventing child maltreatment recurrence.

**Objective:** The aim of this nationwide retrospective cross-sectional study was to describe the child- and family-related risk factors associated with physical and psychological abuse experienced by 4-year-old children.

**Methods:** This study analyzed nationwide survey data collected by the Finnish Institute for Health and Welfare. Overall, 17,009 parents (46%) visiting at a child health clinic filled out the survey consent form. For 8720 children, one or both parents completed the questionnaire (24%). Analyses were carried out using  $\chi^2$  tests and binary logistic regression.

**Results:** Of the 4-year-olds, 44% had experienced at least one form of psychological abuse and 14% physical abuse. These forms of violence co-occurred in 25% of the reported cases ( $p < .001$ ). Intimate partner violence (IPV) and child maltreatment co-occurred in 19.6% of psychological abuse ( $p < .001$ ) and 22.5% of physical abuse cases ( $p < .001$ ). Parents exposed to IPV was the risk factor most likely to predict an increased risk for both psychological abuse (OR 4.01, CI 3.41–4.72;  $p < .001$ ), and physical abuse (OR 2.19, CI 1.81–2.64;  $p < .001$ ). Approving of hair-pulling or pinching the child (i.e., using corporal punishment) was most likely to predict an increased risk of physical abuse (OR 13.70, CI 11.69–16.06;  $p < .001$ ).

**Conclusions:** The findings emphasize the importance of preventing all forms of child maltreatment by identifying families at risk and supporting parenthood according to families' needs.

### 1. Introduction

Violence against children, also known as child maltreatment, is a global health and social problem. Child maltreatment may include “any act of commission or omission by a parent or other caregiver that results in harm, potential for harm, or threat of harm to a child. Harm does not need to be intended” (Gilbert et al., 2009, 69). By Gilbert et al. (2009) the four forms of maltreatment are widely recognized: physical, sexual and psychological abuse, and a child's neglect. Witnessing violence between parents is also considered child maltreatment (Gilbert et al., 2009). However, the use of the concepts varies from study to study. In the present study, the focus is especially in physical abuse, including corporal punishment, and psychological abuse.

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In Finland, child maltreatment was banned as early as 1984 by the [Act on Child Custody and Right of Access \(361/1983\)](#) according to which a child must be protected from all forms of violence. Second, the [Act amending of Child Welfare Act \(1302/2014\)](#) extended the notification duty for authorities in cases where an offence against a child's life or health is suspected. Almost all (about 99%) Finnish families with children regularly visit in free child welfare services where public health nurses, physicians and other professionals assess and support child and family health until 7 years, when children start school and move to school health care services ([Health Care Act 1326/2010, 15 §](#)). Continuing and systematic encountering and monitoring of the child and family make early intervening possible.

In addition to acute traumas, child maltreatment causes many long-term harmful effects on a child's lifelong health and well-being. An overview of evidence has suggested a causal relationship between child maltreatment and a range of mental disorders, drug use, suicide attempts, sexually transmitted infections, and risky sexual behavior ([Norman et al., 2012](#)). A higher risk of anti-social behavior and behavioral disorders are also mentioned as the consequences of child maltreatment ([Lansford et al., 2014](#); [Fox et al., 2015](#); [van der Put et al., 2015](#); [Pichè et al., 2016](#)).

There is strong evidence that different types of child maltreatment commonly co-occur ([Debowska et al., 2017](#); [Kihyun et al., 2017](#); [Warmingham et al., 2019](#)). Further, in an updated systematic review by [White et al. \(2015\)](#), children who have been maltreated are at an increased risk of further maltreatment. Repeated violence is particularly harmful to the health of the child ([Finkelhor et al., 2009](#)). For instance, the children aged between 2 and 17 with a particularly high burden of lifetime victimization ("poly-victims") experience high levels of psychological distress ([Finkelhor et al., 2009](#)).

Moreover, traumatic experiences in childhood can lead to using violence in adolescence ([Artz et al., 2014](#); [Benedini et al., 2016](#)) or later in adulthood ([Widom et al., 2014](#); [Ports et al., 2016](#); [Abajobir et al., 2017](#); [Assink et al., 2018](#)), and predict later use of adult mental health services ([Rossiter et al., 2015](#)). In particular, childhood mental abuse and neglect increase the risk of multifaceted violence experienced in adulthood ([Abajobir et al., 2017](#); [Widom et al., 2014](#)).

Young children are most likely to experience child maltreatment at home ([Gilbert et al., 2009](#); [WHO, 2020](#)). As a result, our study focuses on the experiences of 4-year-old children of violence, and potential child- and family-related risk factors related to this based on an extensive national survey. Knowledge of the risk factors may help professionals in health and social care to identify the children and families at risk and prevent further child maltreatment.

### 1.1. Occurrence of psychological and physical abuse

Child maltreatment prevalence rates provide different sorts of information depending on, among other things, data sources and time spans ([Stoltenborgh et al., 2015](#)). Globally, self-report studies produce higher prevalence rates than studies using other informants (e.g., social and health care staff) ([Stoltenborgh et al., 2015](#)). Based on a review by [Stoltenborgh et al.,](#) worldwide, 22.6% of children were physically and 36.3% emotionally abused (during their entire childhood), whereas the overall estimated prevalence rates in studies using informants was 0.3% for both emotional and physical violence (mainly at 1-year prevalence of maltreatment). [Gilbert et al. \(2009\)](#) concluded that every year in high-income countries, around 4 to 16% of children were physically abused, and 10% were neglected or psychologically abused.

The latest [WHO \(2020\)](#) report reveals that nearly three out of four children aged 2–4 regularly suffer physical punishment and/or physical violence at the hands of their parents and caregivers. Based on a US study, 15.2% of 0 to 17-year-old children experienced violence by their caregiver. Of these children, 5.0% had been exposed to physical abuse ([Finkelhor et al., 2015](#)). A review concerning the Nordic countries suggested that the prevalence of severe physical abuse by a parent ranged from three to 9%, and the prevalence of witnessing domestic violence from seven to 12.5% ([Klobben et al., 2015](#)). Some Finnish self-report studies have shown that around 6% of both mothers ([Peltonen et al., 2014](#)) and fathers ([Ellonen et al., 2017](#)) had committed severe acts of violence, i.e., slapped, kicked, punched or shook their (under-2-year-old) child at least once during the year preceding the survey. Although corporal punishment has been prohibited by an Act (361/1983) for a long time in Finland, some parents continue to use it in raising their children. According to the most recent report of the Central Union for Child Welfare ([Hyvärinen, 2017](#)) 28% of Finns still somewhat or strongly agree with the use of corporal punishment. However, the trend has been declining.

A significant part of the violence against a child takes place within the family ([WHO, 2020](#)). For this reason, violence does not necessarily appear in the official statistics. The statistics include only cases reported to the authorities. Based on the [Official Statistics of Finland \[OSF\] \(2020\)](#), in 2019, a total of 2600 cases of violence by parents against their underage children were recorded. This is 24.3% of all recorded cases of domestic violence and IPV. Of all the underage victims, 21% were aged under five. The share of underage victims has increased from around 18% in 2009 to around 25%. This does not mean that child maltreatment has increased, but that with the tightening of legislation and the notification duty, more cases will come to the attention of the police.

### 1.2. Child-related risk factors and family-related risk factors, especially on parents, for child maltreatment

The risk factors connected with child maltreatment can be divided into child-, family- and parent-related risk factors ([Paavilainen and Flinck, 2015](#)). This study covers child- and family-related risk factors, especially on parents. In different forms of abuse, gender as a risk factor varies. [Moody et al. \(2018\)](#) concluded that median prevalence rates differ by maltreatment category, gender and by continent. For example, rates of lifetime physical abuse were more similar across genders apart from in Europe, which were 12.0% and 27.0% for girls and boys respectively, and very high in Africa (50.8% and 60.2%). A prevalence of past-year psychological abuse was estimated to be 10.3% in girls and boys in the UK and USA ([Gilbert et al., 2009](#)). According to [Carnochan et al. \(2013\)](#), children who experience recurring maltreatment tend to be under the age of six. Similarly, a child's gender has been identified as a potential risk

factor for the recurrence of child maltreatment, but findings in this area have also been mixed (Carnochan et al., 2013).

Furthermore, factors such as the child's long-term illness, physical, mental or developmental disability or delay have been shown to be associated with an increased risk of violence at home (Kienberger Jaudes and Mackey-Bilaver, 2008; Jones et al., 2012; Heinonen and Ellonen, 2013; Paavilainen and Flinck, 2015). Bullying, as a risk factor, is another type of child maltreatment with long-lasting, severe consequences for the development of mental-health problems (Kaess, 2018). According to studies conducted in the Nordic countries, around 12% of children have been bullied in day care (Helgeland and Lund, 2017; Kirves and Sajaniemi, 2012). The most common form of bullying was exclusion from peer relationships. This may mean that a child is not included in the games, for example.

There is also evidence of parents' alcohol use placing children at different risks of physical abuse (Dubowitz et al., 2011; Freisthler and Grunewald, 2013; Turner et al., 2013; Doidge et al., 2016). Moreover, children can be directly exposed to IPV if they are present in a room where the violence is occurring (i.e., seeing or hearing violence) or are themselves subject to it. However, a review by Birarra et al. (2016) showed a high degree of heterogeneity in the prevalence of the co-occurrence of IPV and sexual abuse and other types of maltreatment (from 12% to 70%).

A meta-analysis by Li et al. (2019) indicated that physical violence between parents significantly increased the risk of physical abuse against children. Similar results were reported in the study by Fréchette et al. (2015) in which they examined a link between corporal punishment and child physical abuse. Further, there is evidence that a risk of serious violence against one's own children is increased by both the use of corporal punishment and the parent's childhood experiences of it (Ellonen et al., 2017; Peltonen et al., 2014). A meta-analysis revealed that among parents who had experienced maltreatment in their own childhood, the odds of child maltreatment were nearly three times as high as the odds of child maltreatment in families with parents who had not been subjected to maltreatment in their childhood (Assink et al., 2018). Mulder et al. (2018) reported that a parent's experiences of childhood abuse confer a particular risk for the child to suffer from neglect, exhibit antisocial behavior and develop mental or psychiatric illness.

Poverty and low incomes, a higher number of children and single parents living alone with their children have been associated with a higher risk for child maltreatment (Dubowitz et al., 2011; Peltonen et al., 2014; Afifi et al., 2015; Doidge et al., 2016). Peltonen et al. (2014) found that high number of children in the family and financial stress were significant predictors of mothers' use of severe physical violence. Furthermore, in addition to job loss and/or financial problems, a serious illness or accident involving the child or someone close to the child and the death of someone close to the child has been associated with child maltreatment (Turner et al., 2013).

However, it has been recognized that no single risk factor alone is necessarily predictive of child maltreatment (Paavilainen and Flinck, 2015; Pathwardhan et al., 2017; Yang and Maguire-Jack, 2018). Thus, the situation of the child and family needs to be considered as a whole (Paavilainen and Flinck, 2015). Therefore, doctors, public health nurses and social workers, as well as other professionals in child and family services need to identify possible risks to ensure that child maltreatment can be addressed as early as possible as a starting point.

The aim of this study is to describe the potential child- and family- related risk factors associated with psychological and physical abuse with the following research questions.

1. What kind of child maltreatment had 4-year-old children experienced in their families during the previous 12 months based on a description by their parents?
2. What kinds of family- and child-related risk factors for child maltreatment were found?

## 2. Methods

### 2.1. Study design and data collection

The study is a nationwide retrospective cross-sectional survey conducted by the Finnish Institute for Health and Welfare (THL). In total, 290 municipalities in mainland Finland out of 295 participated in the data collection. The target group included all of the families whose 4-year-old child underwent an extensive health examination at a child health clinic between 1 February and 31 October 2018 in the municipalities participating in the data collection. Public health nurses served as contact persons in the municipalities. They were responsible for providing questionnaires to the children's parents. Both parents were given an opportunity to fill out the questionnaire in Finnish, Swedish, English, Russian, or Somali either on paper or electronically. The content of the questionnaire was the same for both parents. The parent who was not present at the child health clinic also had the opportunity to complete the questionnaire. Public health nurses or other professionals did not see parental responses. The parents did not reply to the questionnaire at the child health clinic but the parents sent the completed forms to THL per post or electronically.

During the data collection phase, a total of 36,593 extensive health examinations were performed on four-year-olds. Overall, 17,009 families gave their consent on participating in the study, making the coverage 46% of all extensive health examinations for 4-year-old children performed in the research municipalities during the data collection phase. For 8720 children, one or both parents filled out the questionnaire (24%). The total number of responses by parents was 10,737. The response rate could not be calculated. This is because the size of the actual target group could not be determined. For 8720 children at least one parent responded, i.e. the final response rate was 51% of the families who gave consent.

### 2.2. Ethical considerations

The study adhered to the guidelines for good scientific practice published by the Finnish Advisory Board on Research Integrity

(2012) and the Declaration of Helsinki (2008). The municipalities were requested to provide a research permit prior to the data collection process. The families were informed about the study orally and in writing. Study participation was voluntary and the parents could choose to withdraw at any point. The child's official guardian signed a written consent form on the participation in the study at the child health clinic. The study was approved by the Ethical Committee of the Finnish Institute for Health and Welfare (773/2017).

### 2.3. Instrument

Our research data were based on the data set of the Children's Health, Well-being and Services survey (LTH) 2018 in which parents were asked about issues such as welfare, health and functional capacity, lifestyle, safety of the growth environment, and the need, availability and adequacy of services and support (Finnish Institute of Health and Welfare, 2018). Variables were selected for closer examination based on the aim of our study.

All variables were coded to dummy (0/1) variables. Attention was paid to ensure excluding responses concerning the same child twice from the results. If both of the child's parents had filled out the questionnaire, their responses were described based on whether at least one of the parents had reported that a given issue occurred in the child's life.

#### 2.3.1. Dependent variables

The sum variables of psychological and physical abuse experienced by a child were used as dependent variables. The parents were asked with six items whether they personally, the child's other parent, or the parent's spouse or former spouse had been violent towards the child in the previous 12 months. The forms of psychological abuse included in the survey were as follows: 1) throwing, hitting or kicking an object in anger (for example slamming doors) in front of the child, 2) leaving the child without care and attention for a longer period, 3) verbally threatening the child with violence, and 4) calling the child names, belittled, severely criticized or otherwise verbally abused the child. The acts of physical abuse included in the survey were 1) pinching, pulling the hair of or slapping the child, 2) kicking or hitting the child. The provided response alternatives were: not once, once, sometimes, often. The sum variables of psychological and physical abuse were formed and coded as follows: a parent or some other close person has used at least one form of psychological abuse against the child at least once (yes/no) and a parent or some other close person has used at least one form of physical abuse against the child at least once (yes/no).

#### 2.3.2. Independent child-related variables

The child's gender (boy/girl), origin of birth, chronic illness or other long-term health problem (yes/no), disability, symptomatology, behavior, and bullying were used as independent, child-related variables.

The child's origin was coded as a Finnish background (when at least one of the child's parents had been born in Finland) or a foreign background (both of the child's parents or the only parent had been born in a country other than in Finland).

Information about the respondents' child's disability was sought through the eight dimensions of basic functional capacity: seeing, hearing, walking, picking up small objects, learning new things, playing and understanding parents and speaking in a manner the parent(s) understands (Washington Group on Disability Statistics, 2017). The response alternatives were: not difficult at all, a little difficult, very difficult, not able at all. The sum variable of child disability (yes/no) was formed as follows: the child has disability when he or she has a lot of difficulties or is unable to function in at least one functional dimension.

The child's symptomatology in the past six months was asked with 10 items: headache, stomach ache, bed-wetting/need for a nappy at night, stool soiling, constipation, poor appetite, difficulty falling sleep, waking up at night, low spirits or crying or lack of enthusiasm, and tenseness, fears or clinginess. The response alternatives were: never, less than once a month, approximately once a month, approximately once a week, almost every day/night. Two sum variables were formed: the child has at least three weekly symptoms (yes/no) and the child has at least three almost daily symptoms (yes/no).

The child's impulsive behavior was assessed with the Multisource Assessment of Social Competence Scale (MASCS) instrument (e.g., Junttila et al., 2006). Impulsive behavior included items: 1) having a short temper, 2) bursts of anger and fits of rage, 3) easily irritated. Disruptive behavior included items: 1) taunts and mocks other children, 2) disputes and argues with other children, 3) annoys and disturbs other children, 4) acts without thinking. The response alternatives were: never (1 point), rarely (2 point), often (3 point), very often (4 point). The sum variables were formed and coded as follows: the child has abnormal impulsive behavior when the average score of the answer is 2.5 or higher (yes/no) and abnormal disturbing behavior when the average score is 2.5 or higher (yes/no).

One question was concerned with whether the child had been bullied at home, in day-care or during leisure time in the previous 12 months and its responses were coded as no (response alternatives: no/I do not know) and yes (response alternatives: sometimes/often).

#### 2.3.3. Independent family-related variables

Family size, major life changes, income support received by the family in the previous 12 months (yes/no), the child's exposure to parents' binge drinking, parents' approval of pulling their child's hair or pinching the child (yes/no), and IPV were used as independent family-related variables.

The respondents were asked about family size with an open-ended question. The responses were coded as the child's family with at least three children and the child's family with one or two children.

The respondents were asked about life changes in the previous 12 months with eight items: the family's relocation to another community, the birth of a baby, parent's separation/divorce, a parent moving in together with a spouse, the spouse's children moving in the joint household, the child has become seriously ill/disabled or similar, serious illness or death of a family member/ someone else

**Table 1**

Distributions and percentages of child- and family-related variables, % of the children one or both of whose parents completed the survey (N = 8720).

	n	(%)
<i>Child-related variables</i>		
Gender		
Boy	4373	(50.1)
Girl	4347	(49.9)
Total	8720	(100.0)
Origin		
Finnish background	8431	(98.3)
Foreign background	142	(1.7)
Total	8573	(100.0)
Long-term illness or other health problem		
No	7656	(88.4)
Yes	1001	(11.6)
Total	8657	(100)
Disability		
No	8580	(98.6)
Yes	118	(1.4)
Total	8698	(100,0)
At least three weekly symptoms		
No	7516	(86.4)
Yes	1182	(13.6)
Total	8698	(100)
At least three almost daily symptoms		
No	8575	(98.6)
Yes	123	(1.4)
Total	8698	(100.0)
Abnormal impulsive behavior		
No	7568	(87.5)
Yes	1081	(12.5)
Total	8649	(100.0)
Abnormal disturbing behavior		
No	7985	(92.7)
Yes	631	(7,3)
Total	8616	(100.0)
Subjected to bullying		
No	5663	(65.0)
Yes	3027	(35.0)
Total	8.690	(100.0)
<i>Family-related variables</i>		
Family size		
1–2 children in the family	5706	(66.5)
At least 3 children in then family	2878	(33.5)
Total	8584	(100.0)
Child has experienced at least one major life change		
No	5374	(61.8)
Yes	3319	(38.2)
Total	8693	(100.0)
Child's family has received income support		
No	8232	(94.8)
Yes	451	(5.2)
Total	8683	(100.0)
Child has been exposed to binge drinking by one or both parents		
No	7824	(90.5)
Yes	822	(9.5)
Total	8646	(100.0)
One or both parents approve of pulling the child's hair or pinching the child		
No	7591	(88.0)
Yes	1033	(12.0)
Total	8624	(100.0)
One or both parents have been exposed to IPV		
No	7516	(88.5)
Yes	972	(11.5)
Total	8488	(100.0)

IPV = intimate partner violence.

close to the child, and the parents' unemployment. A sum variable was formed as follows: the child has experienced at least one major life change (yes/no).

Two questions concerned the child's exposure to the parents' binge drinking in the previous 12 months: 1) if the parent had drunk at least 5 (for women) or 7 (for men) servings of alcohol at a time (yes/no), and 2) whether the child had been present while this occurred (never/sometimes/often). The variable was formed and coded as follows: the child was considered to have been exposed to binge drinking if one or both parents had engaged in binge drinking and the child had been sometimes or often present while this occurred (yes/no).

IPV in the previous 12 months was asked about with four items: physical abuse (e.g. kicking, hitting), psychological abuse (e.g. threats, verbal abuse, humiliation, and pressure), sexual violence (e.g. being forced into sexual acts), and financial violence (e.g. being prevented from making decisions about the family's financial affairs or shopping on one's own). The provided response alternatives were yes and no. A sum variable was formed and coded as follows: one or both of the child's parents have experienced at least one form of IPV (yes/no).

#### 2.4. Data analyses

Data analysis was conducted in three phases. The first phase involved calculating the distributions and percentages of child- and family-related variables (Table 1). The second included describing distributions and percentages of the sum variables of emotional and physical violence experienced by the child (Table 2). Subsequently, associations between psychological or physical abuse (as dependent variables) and child-related and family-related variables (as independent variables) were described using cross-tabulations with chi-square tests of significance. Only those independent variables that proved significant ( $p \leq .05$ ) connections with dependent variables in bilateral examinations were included in the logistic regression analysis (Table 3). In the third phase, binary logistic regression analyses (method: enter) were conducted using psychological abuse and physical abuse variables separately as dependent variables and child-related and family-related variables as independent variables. Logistic regression was chosen because of the dichotomous nature of the dependent variables. Logistic regression is reported with 95% confidence intervals (CI) and odds ratios (ORs). Here, ORs indicated an increased risk of child maltreatment experiences. Statistical significance was set at  $\leq .05$ . Two models were constructed describing the potential risk factors for psychological and physical abuse (Tables 4 & 5).

The analyses were performed using IBM SPSS (Version 26.0 for Windows).

### 3. Findings

Of the parents responding to the survey, 72% ( $n = 7636$ ) were female and 28% ( $n = 3033$ ) were male. Over half (58%) of the parents had completed a higher education degree and three out of four parents were employed (74%). The majority (96%) of the parents had a Finnish background. Four out of five parents (83%) lived with a spouse and the children they had with their spouse. Most (84%) of the parents also had other children in addition to the 4-year-old.

As Table 1 shows, the share of boys was slightly higher than that of girls in the research data. Only a small proportion of the children (1.7%) had a foreign background. Furthermore, 11.6% of all children were reported to have a long-term illness or some other health problem, 13.6% at least three weekly symptoms and 12.5% abnormal impulsive behavior. Thirty five percent of 4-year-olds were reported to have been bullied at home or in day care. Around a third of families (33.5%) were reported to have at least three children. Almost two-fifths (38.2%) of the children had experienced at least one major life change and nearly one in ten (9.5%) had been exposed to binge drinking by one or both parents. Furthermore, 12% of the child's parents, one or both, reported approving of pulling the child's hair or pinching the child, and nearly as many parents (11.5%) reported having been subjected to IPV (Table 1).

#### 3.1. Psychological and physical abuse experienced by four-year-old children during the previous 12 months as reported by their parents

Table two shows that of the four-year-old children, 43.9% had experienced at least one form of psychological abuse by their parent or some other close person, and 14.3% had experienced physical abuse as reported by their parent. The most common form of psychological abuse (39%) included, for instance, combative behavior (throwing or kicking some object in front of the child) by a parent

**Table 2**

Psychological and physical abuse experienced by the four-year children ( $N = 8720$ ) during the previous 12 months as reported by their parents.

Parent or some other close person has, on one or more occasions,	No	Yes
	n (%)	n (%)
Used at least one form of psychological abuse on the child	4870 (56.1)	3816 (43.9)
Left the child without care and attention for a longer period	8540 (98.4)	139 (1.6)
Verbally threatened the child with violence	8080 (93.1)	595 (6.9)
Called the child names, belittled, criticized sharply or otherwise verbally abused the child	7478 (86.4)	1179 (13.6)
Thrown, hit, or kicked an object in anger in front of the child	5289 (61.0)	3385 (39)
Used at least one form of physical abuse on the child	7442 (85.7)	1241 (14.3)
Kicked or hit the child	8645 (99.7)	24 (0.3)
Flicked the child with a finger, pulled the child's hair or slapped the child	7429 (85.7)	1235 (14.3)

**Table 3**

Associations between psychological and physical abuse and child- and family-related variables.

	Psychological and physical abuse experienced by the 4-year-old children (N = 8270) during the previous 12 months as reported by their parents					
	Psychological abuse			Physical abuse		
	n (%)	$\chi^2$	p	n (%)	$\chi^2$	p
All children	3816 (43.9)			1241 (14.3)		
Child-related variables						
Gender						
Boy	2027 (46.5)	23.809	.000	729 (16.7)	47.712	.000
Girl	1789 (41.3)			512 (11.8)		
Origin						
Finnish background	3722 (44.2)	26.187	.000	1223 (14.5)	12.053	.000
Foreign background	29 (22.0)			5 (3.8)		
Long-term illness or other health problem						
No	3314 (43.4)	8.987	.003	1087 (14.2)	0.175	.665
Yes	483 (48.4)			147 (14.7)		
Disability						
No	3756 (43.9)	0.351	.576	1223 (14.3)	0.051	.895
Yes	55 (46.6)			16 (13.6)		
At least three weekly symptoms						
No	3111 (41.5)	134.023	.000	1012 (13.5)	28.635	.000
Yes	702 (59.5)			228 (19.4)		
At least almost three daily symptoms						
No	3730 (43.6)	28.057	.000	1211 (14.2)	8.773	.006
Yes	83 (67.5)			29 (23.6)		
Abnormal impulsive behavior						
No	3123 (41.3)	173.978	.000	982 (13.1)	86.267	.000
Yes	675 (62.7)			254 (23.6)		
Abnormal disturbing behavior						
No	3358 (42.1)	146.995	.000	1042 (13)	124.115	.000
Yes	423 (67.0)			184 (29.2)		
Subjected to bullying						
No	2212 (39.2)	150.092	.000	666 (11.8)	83.735	.000
Yes	1596 (52.9)			574 (19.0)		
Family-related variables						
Family size						
1–2 children in the family	2510 (44.1)	0.112	.747	789 (13.9)	3.726	.054
At least 3 children in the family	1256 (43.7)			443 (15.4)		
Child has experienced at least one major life change						
No	2231 (41.6)	32.097	.000	700 (13.0)	17.734	.000
Yes	1583 (47.8)			540 (16.3)		
Child's family has received income support						
No	3618 (44.0)	0.247	.625	1179 (14.4)	0.259	.677
Yes	191 (42.8)			60 (13.5)		
Child has been exposed to binge drinking by one or both parents						
No	3385 (43.4)	8.999	.003	1065 (13.7)	28.098	.000
Yes	401 (48.8)			168 (20.5)		
One or both parents approve of pulling the child's hair or pinching the child						
No	3170 (41.8)	119.410	.000	661 (8.7)	1625.602	.000
Yes	616 (59.9)			573 (55.7)		
One or both parents have been exposed to IPV						
No	2997 (39.9)	432.230	.000	945 (12.6)	170.784	.000
Yes	729 (75.1)			274 (28.2)		

or some other close person. The most common form of physical abuse included a parent flicking their child with a finger, pulling the child's hair or slapping the child (14.3%). Only a small share (1.6%) of the 4-year-old children had been left without care and attention (i.e. they had been neglected) for a longer period. Even fewer children had been kicked and hit (0.3%).

Further, cross-tabulation showed that psychological and physical abuse had occurred simultaneously in 25.4% of the reported cases (969 out of 3813) ( $p < .001$ ).

### 3.2. Associations between psychological abuse and child- and family related variables

More boys compared with girls (46.5% vs 41.3%) and more children with a Finnish background compared with children with a foreign background (44.2% vs 22.0%) had experienced psychological abuse. Experiencing psychological abuse was more frequent in children with a chronic illness (48.4% vs 43.4%), children who had at least three weekly symptoms (59.5% vs 41.5%) as well as children who had at least three daily symptoms (67.5% vs 43.6%) compared to others. Children who had abnormal impulsive behavior (62.7% vs 41.3%) as well as children who had abnormal disturbing behavior (67% vs 42.1%) were more likely to be the target of

**Table 4**  
Logistic regression model for psychological abuse.

Independent variables	B	S.E.	Wald	df	Sig.	Odds ratio	95% CI for	
						(OR)	Exp(B)	
						Exp(B)	Lower	upper
<i>Child-related risk factors</i>								
Gender								
Girl	0.18	0.05	14.08	1	0.000	1.20	1.09	1.31
Boy								
Origin								
Foreign background								
Finnish background	1.1	0.23	21.99	1	0.000	2.98	1.89	4.71
Reference categories for all next variables were: no, yes								
Long-term illness or health problem	0.02	0.08	0.06	1	0.814	1.02	0.88	1.18
At least three weekly symptoms	0.47	0.07	39.43	1	0.000	1.59	1.38	1.84
At least almost three daily symptoms	0.34	0.22	5.96	1	0.127	1.40	0.91	2.16
Abnormal impulsive behavior	0.49	0.08	39.40	1	0.000	1.63	1.40	1.90
Abnormal disturbing behavior	0.56	0.10	31.56	1	0.000	1.76	1.44	2.14
Subjected to bullying	0.36	0.05	50.46	1	0.000	1.43	1.30	1.66
<i>Family-related factors</i>								
Child has experienced at least one major life change in the last 12 months	0.20	0.05	15.75	1	0.000	1.22	1.10	1.34
Child has been exposed to binge drinking by one or both parents in the last 12 months	0.15	0.08	3.62	1	0.057	1.17	1.00	1.36
One or both parents approve of pulling the child's hair or pinching the child	0.65	0.07	76.45	1	0.000	1.91	1.65	2.20
One or both parents have been exposed to IPV in the last 12 months	1.39	0.08	281.27	1	0.000	4.01	3.41	4.72

IPV = intimate partner violence.

Independent variables explaining the variance of psychological abuse; between 10.2% (Cox & Snell R Square) and 13.7% (Nagelkerke R Square).

**Table 5**  
Logistic regression model for physical abuse.

Independent variables	B	S.E.	Wald	df	Sig.	Odds ratio	95.0% CI for	
						(OR)	Exp(B)	
						Exp(B)	Lower	upper
<i>Child-related risk factors</i>								
Gender								
Girl								
Boy	0.42	0.07	33.06	1	0.000	1.53	1.32	1.76
Origin								
Foreign background								
Finnish background	1.50	0.50	9.14	1	0.002	4.47	1.69	11.78
Reference categories for all next variables were: no, yes								
At least three weekly symptoms	0.22	0.10	4.45	1	0.035	1.24	1.02	1.52
At least almost three daily symptoms	0.39	0.26	2.18	1	0.140	1.47	0.88	2.47
Abnormal impulsive behavior	0.41	0.10	15.73	1	0.000	1.51	1.23	1.84
Abnormal disturbing behavior	0.54	0.12	19.93	1	0.000	1.72	1.36	2.18
Subjected to bullying	0.39	0.07	27.88	1	0.000	1.48	1.28	1.72
<i>Family-related factors</i>								
Child has experienced at least one major life change in the last 12 months	0.29	0.07	15.64	1	0.000	1.34	1.16	1.54
Child has been exposed to binge drinking by one or both parents in the last 12 months	0.10	0.11	0.80	1	0.369	1.11	0.89	1.38
One or both parents approve of pulling the child's hair or pinching the child	2.62	0.08	1039.45	1	0.000	13.70	11.69	16.07
One or both parents have been exposed to IPV in the last 12 months	0.78	0.10	67.15	1	0.000	2.19	1.81	2.64

IPV = intimate partner violence.

Independent variables explaining the variance of physical abuse; between 16.2% (Cox & Snell R Square) and 28.7% (Nagelkerke R Square).

psychological abuse than other children. Furthermore, children who had been bullied experienced psychological abuse more often than others (52.9% vs 39.2%) (Table 3).

Children whose family had experienced at least one major life change within the previous 12 months (47.8% vs 41.6%), children who had been exposed to binge drinking by their parents (48.8% vs 43.4%), children whose parents approved of pulling the child's hair or pinching the child (59.9% vs 41.8%) as well as children whose parents had been exposed to IPV were more often the target of psychological abuse than other children (75.1% vs 39.9%). No associations were found between psychological abuse and the child's disability ( $p = .576$ ), family size ( $p = .747$ ) and income support ( $p = .625$ ) (Table 3).



### 3.3. Associations of physical abuse with child- and family-related variables

Experiencing physical abuse was more common among boys compared with girls (16.7% vs 11.8%) and children with a Finnish background compared with children with a foreign background (14.5% vs 3.8%). Children who had at least three weekly symptoms (19.4% vs 13.5%) and children who had at least three daily symptoms (23.6% vs 14.2%) experienced physical abuse more often than others. Children who had abnormal impulsive behavior (23.6% vs 13.1%) as well as children who had abnormal disturbing behavior (29.2% vs 13.0%) were more often the target of physical abuse than other children. Furthermore, children who were bullied experienced physical abuse more often than others (19.0% vs 11.8%) (Table 3).

Being the target of physical abuse was more common among children whose family had experienced at least one major life change within the previous 12 months (16.3% vs 13.0%), children who had been exposed to binge drinking by their parents (20.5% vs 13.7%), children whose parents approved of pulling the child's hair or pinching the child (55.7% vs 8.7%) as well as children whose parents had been exposed to IPV (28.2% vs 12.6%) compared to other children. No associations were found between physical abuse and the child's disability ( $p = .895$ ), the child's long-term illness or health problem ( $p = .665$ ), family size ( $p = .054$ ) and income support ( $p = .677$ ) (Table 3).

Moreover, cross-tabulation showed that if one or both of the child's parents reported having been exposed to at least one form of IPV, 19.5% of the children (729 out of 3726) had been subjected to at least one form of psychological abuse ( $p < .001$ ), and 22.5% (274 out of 1219) at least one form of physical abuse ( $p < .001$ ).

### 3.4. Risk factors as predictors of psychological abuse

Parents' exposure to IPV in the previous 12 months was the risk factor most likely to predict an increased risk for psychological violence (OR 4.01; CI 3.41–4.72). Approving of pulling the child's hair or pinching the child (OR 1.91; CI 1.65–2.20), the child's abnormal disturbing behavior (OR 1.76; CI 1.44–2.14), and abnormal impulsive behavior (OR 1.63; CI 1.40–1.90), at least three weekly symptoms experienced by the child (OR 1.59; CI 1.38–1.84), and being subjected to bullying (OR 1.43; CI 1.30–1.58), as well as at least one major life change in the family (OR 1.22; CI 1.10–1.34) emerged as risk factors for increasing the likelihood for psychological violence (Table 4).

### 3.5. Risk factors as predictors of physical abuse

The approval of one or both of the child's parents of pulling the child's hair or pinching the child strongly increased the likelihood for the parents' using physical abuse against the child (OR 13.70; CI 11.69–16.07). Further, exposure to IPV in the previous 12 months was a risk factor predicting an increased risk of physical abuse (OR 2.19; CI 1.81–2.64). Moreover, the child's disturbing behavior (OR 1.72; CI 1.36–2.18), abnormal impulsive behavior (OR 1.51, CI 1.23–1.84) and being subjected to bullying (OR 1.48, CI 1.28–1.72) as well as at least one major life change in the family (OR 1.34, CI 1.16–1.54) emerged as factors increasing the risk of physical abuse (Table 5).

## 4. Discussion

### 4.1. Occurrence of child maltreatment among four-year-old children

Our findings indicate that around two fifths of four-year-old children had been exposed to at least one form of psychological abuse and 14% to physical abuse in the previous 12 months based on reporting by their parents. While the prevalence of psychological abuse in the present study is similar to the findings of a review by Stoltenborgh et al. (2015) at the global level (36.6%), but physical abuse rate was nearly half lower in our study. Compared to a study by Gilbert et al.'s (2009), our findings concerning physical abuse were within the same range, while the prevalence of psychological abuse was four times higher. Unfortunately, there is little to no previous research data available on psychological abuse against children aged four in Finland, which makes carrying out temporal comparisons in this area impossible. Looking at the topic of parental violence against their children, the present results are over two times higher compared to previous Finnish surveys concerning small children (Ellonen et al., 2017; Peltonen et al., 2014), according to which around 6% of both mothers and fathers had committed severe acts of violence. However, it should be noted that, in our study, the concept of physical abuse was considered to include so-called milder forms of violence (e.g., flicking the child with a finger or pulling the child's hair) in addition to severe violence (i.e., kicking or hitting). In our study, the four-year-old children had experienced a very small amount (0.3%) of severe physical abuse based on the reports by their parents. The reason for such a result could be that parents are reluctant to report serious physical abuse even to researchers knowing that violence against a child is a crime. They may fear that the researchers will report child maltreatment to the authorities.

Further, our finding showed that the experiences of psychological and physical abuse of the 4-year-old children had occurred simultaneously in one quarter of reported cases. This result is in line with many international studies (e.g., Debowska et al., 2017; Kihyun et al., 2017; Warmingham et al., 2019).

### 4.2. Child-related risk factors as predictors of psychological and physical abuse

A child's long-term illness, or physical, mental or developmental disability has been shown to be associated with an increased risk

of violence at home. However, our study indicated that a child's disability (difficulties seeing, hearing, walking, picking up small objects, learning new things etc.) and a chronic illness or other health problem was not associated with an increasing risk of psychological abuse. In this area, our research results differ from previous studies (Kienberger Jaudes and Mackey-Bilaver, 2008; Jones et al., 2012; Heinonen and Ellonen, 2013). For this reason, our research findings can be considered positive. The child's abnormal impulsive behavior predicted the use of both physical and psychological abuse against the child. However, based on our study, the risks were slightly lower than in the study by Kienberger Jaudes and Mackey-Bilaver (2008) that indicated that children with some behavioral problems were nearly twice as likely to experience abuse or neglect compared to their peers of the same age. On the other hand, if the parents are themselves violent they may not accurately perceive or report what the child's behavior is.

Moreover, the results of the study showed that children whose parents had reported at least three weekly or daily symptoms (e.g. a child's difficulty falling asleep, waking up at night, crying) showed a slightly increased risk of exposure to both psychological and physical abuse. For example, some parents may get tired and/or feel helpless when faced with a child crying incessantly. A child's crying has been identified as one of the risk factors of child maltreatment (Paavilainen and Flinck, 2015). It is crucial to ask and discuss issues which are known stressors or issues which may increase the risk of child maltreatment. This makes it important for agents such as child health clinics to identify parents who need support and help them in their parenthood. Nowadays, in Finnish child health clinics are used different screening tools to ask parents about family well-being, violence issues and their children's raising. However, these screening tools are used in a variety of ways. To accomplish this systematically, it would be important to use some kind of a risk assessment instrument that parents could fill out before an appointment (Ellonen et al., 2019).

Bullying is a risk factor with long-lasting negative consequences for the development of mental-health problems. More than a third of the 4-year-old children had been bullied at home or in day care according to their parents. This proportion is three times higher than in previous studies conducted in the Nordic countries (Helgeland and Lund, 2017; Kirves and Sajaniemi, 2012). This can be considered a serious issue. Even though the logistic regression analyses did not show a particularly high risk for psychological or physical abuse, it is important for early childhood education and care providers and families to monitor how children are getting along with one another and ensure that no one is excluded from activities.

#### 4.3. Family-related risk factors as predictors of psychological and physical abuse

Earlier international (Fréchette et al., 2015) and national studies (Ellonen et al., 2017; Peltonen et al., 2014) have shown that the risk of serious violence against one's own children is increased by the use of corporal punishment and parents' childhood experiences of it. First, 12% of the 4-year-olds' parents reported approving of pulling the child's hair or pinching the child as a form of punishment. This proportion is considerably lower than in the most recent report of the Central Union for Child Welfare (28%) (Hyvärinen, 2017), and may show a downward trend in corporal punishment. On the other hand, our findings indicated that the acceptance of corporal punishment significantly increased the risk of physical and psychological abuse. In this respect, our research results can be considered to be in line with previous studies conducted in Finland (Ellonen et al., 2017; Peltonen et al., 2014) although we do not know whether the parents of 4-year-old children completing the questionnaire were the child's mother or father. Moreover, we do not know whether the parents had experienced corporal punishment in their childhood, because this was not asked about. In any event, earlier studies have shown that corporal punishment is as harmful to a child's health as any other form of violence. This makes it important to also discuss how parents are raising their children with the parents when they are visiting child health clinics.

Second, our research results indicated a significant association between psychological and physical abuse and the IPV victimization of the child's parent. In one-fifth of the reported cases, IPV and the child's exposure to psychological abuse occurred simultaneously, and in nearly one quarter of cases, IPV and physical abuse against the child co-occurred. This result is in line with Birarra et al.'s (2016) review, although there is a lot of heterogeneity in the prevalence of the co-occurrence of IPV and child maltreatment, ranging from 12% to 70%. Furthermore, as a risk factor, parents' exposure to IPV predicted an increased risk for both psychological (OR 4.01) and physical abuse (OR 2.19) violence. These results are in line with earlier international studies (Fréchette et al., 2015; Li et al., 2019) based on which physical abuse between parents significantly increased the risk of physical abuse targeting children. In any case, a zero-tolerance approach should be the starting point, which makes it important to identify families where children may hear, see or are subjected to direct violence as early as possible. Furthermore, social welfare and health professionals should not only ask about violence against children but also about violence between the child's parents. All in all, we can summarize that at least a small share of the 4-year-old children were so called poly-victims; they had experienced multiple forms of violence in different contexts.

Furthermore, earlier findings have suggested that one risk factor for child maltreatment is alcohol and/or substance abuse (e.g., Dubowitz et al., 2011; Freisthler and Grunewald, 2013; Turner et al., 2013). Our findings did not indicate that a child's exposure to binge drinking by one or both parents in the previous 12 months was associated with a heightened risk of psychological or physical abuse. However, the indicator was loosely defined (sometimes vs often), which may explain why we did not find an association between these variables.

#### 4.4. Limitations

A number of limitations should be considered in the present study. First, there is no accurate knowledge of how many families had an opportunity to participate in the study. This is due to variation in launching the data collection at the child health clinics: not all public health nurses recruited all families they encountered to the study, and 14 small municipalities that had enrolled in the study recruited no families to the study. As a result, some families with child maltreatment were likely to be excluded from the study. Second, two large cities located in the Helsinki metropolitan area, were not included in the data collection.

According to Statistics Finland, 7% of Finland's population had a foreign background in 2017 (OSF, 2017). Moreover, the share of people with a foreign background varies between counties and municipalities, and the age structure also varies considerably between countries of origin. This makes it difficult to make accurate comparisons. Four per cent of the respondents of this study had a foreign background, which means that people of foreign origin were at least somewhat underrepresented. Perhaps, people with a foreign background did not always even have the opportunity to participate and, moreover, probably due to language problems and cultural differences, they responded less frequently.

The use of self-reported data and a retrospective study design may limit the validity of the measures used. First, the question concerning the four-year-old child's experiences of violence did not specify exactly who had committed the act of violence. Second, the results included children who had been a target of violence once or more often based on their parents' reports. For example, parents may remember things incorrectly or, due to the sensitivity of the questions, may omit some facts. As a result, the prevalence of severe physical violence may be higher than reported. Third, the subject is still a sensitive one. Not even the researchers are being trusted and there are fears that the matter will be taken to the authorities.

Furthermore, our study is limited in its scope as the survey of which a portion of data was used in the present study was not designed for the specific purpose of charting violence against children. Instead, experiences of violence were only a small part of a broader welfare study. On the positive side, however, there was a fairly large and comprehensive data set. This study is the first of its kind to investigate experiences of violence among 4-year-old children as reported by their parents.

#### 4.5. Implications for practice and further research

The research results present several challenges for practical work. Based on this study, at least two conclusions can be made: the findings emphasize the importance of preventing any forms of child maltreatment, including corporal punishment and exposure to IPV. The risk factors of violence against children should be asked about and discussed systematically in child and family services. Healthcare professionals should be encouraged to inquire about violence when they suspect that it may occur. Second, help and support measures should be made more effective, especially in matters concerning violence and parenthood. Future research should explore the need, availability and adequacy of services, and support given and received by the guardians of 4-year-old children: how different services can be further developed to better meet the needs of parents of young children in relation to the risks of violence.

## References

- Abajobir, A. A., Kisely, S., Williams, G. M., Clavarino, A. M., & Najman, J. M. (2017). Substantiated childhood maltreatment and intimate partner violence victimization in young adulthood: A birth cohort study. *Journal of Youth and Adolescence*, *46*, 165–179.
- Affif, T. O., Taillieu, T., Cheung, K., Katz, L. Y., Tonmyr, L., & Sarcen, J. (2015). Substantiated reports of child maltreatment from the Canadian Incidence Study of Reported Child Abuse and Neglect 2008: Examining child and household characteristics and child functional impairment. *Canadian Journal of Psychiatry*, *60*(7), 315–323.
- Artz, S., Jackson, M.A., Rossiter, K.K., Nijdam-Jones, A., Geczy, I., & Porteus, S. (2014). A comprehensive review of the literature on the impact of exposure to intimate partner violence for children and youth. *International Journal of Child, Youth and Family Studies*, *5*(4), 493–587. In Harm's way: A Special Issue on the Impacts and Costs of Witnessing Intimate Partner Violence.
- Assink, M., Spruit, A., Schuts, M., Lindauer, R., van der Put, C. E., & Stams, G.-J. J. M. (2018). The intergenerational transmission of child maltreatment: A three-level meta-analysis. *Child Abuse & Neglect*, *84*, 131–145.
- Benedini, K. M., Fagan, A. A., & Gibson, C. L. (2016). The cycle of victimization: The relationship between childhood maltreatment and adolescent peer victimization. *Child Abuse & Neglect*, *59*, 111–121.
- Birarra, Z. S., Lessard, G., & Drummond, A. (2016). Co-occurrence of intimate partner violence and child sexual abuse: Prevalence, risk factors and related issues. *Child Abuse & Neglect*, *55*, 10–21.
- Carnochan, S., Rizik-Baer, D., & Austin, M. J. (2013). Preventing the recurrence of maltreatment. *Journal of Evidence-Based Social Work*, *10*, 161–178.
- Debowska, A., Willmott, D., Boduszek, D., & Jones, A. D. (2017). What do we know about child abuse and neglect patterns of co-occurrence? A systematic review of profiling studies and recommendations for future research. *Child Abuse and Neglect*, *70*, 100–111. <https://doi.org/10.1016/j.chiabu.2017.06.014>. Aug. (Epub 2017 Jun 10).
- Doidge, J. C., Higgins, D. J., Dellfabro, P., & Segel, L. (2016). Risk factors for child maltreatment in an Australian population-based cohort study. *Child Abuse & Neglect*, *64*, 47–60. <https://doi.org/10.1016/j.chiabu.2016.12.002>
- Dubowitz, H., Kim, J., Black, M. M., Weisbart, C., Semiatin, J., & Magder, L. S. (2011). Identifying children at high risk for a child maltreatment report. *Child Abuse & Neglect*, *35*(2), 96–104. <https://doi.org/10.1016/j.chiabu.2010.09.003>
- Ellonen, N., Peltonen, K., Pösö, T., & Janson, S. (2017). A multifaceted risk analysis of father's self-reported physical violence toward their children. *Aggressive Behavior*, *43*, 317–328.
- Ellonen, N., Rantanen, H., Lepistö, S., Helminen, M., & Paavilainen, E. (2019). The use of the Brief Child Abuse Potential Inventory in the general population in Finland. *Scandinavian Journal of Primary Health Care*, *37*, 128–134. <https://doi.org/10.1080/02813432.2019.1571002>
- Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2009). Lifetime assessment of poly-victimization in a national sample of children and youth. *Child Abuse & Neglect*, *33*, 403–411.
- Finkelhor, D., Turner, H. A., Shattuck, A., & Hamby, S. L. (2015). Prevalence of childhood exposure to violence, crime, and abuse: Results from the national survey of children's exposure to violence. *JAMA Pediatrics*, *169*(8), 746–754. <https://doi.org/10.1001/jamapediatrics.2015.0676>
- Finnish Institute of Health and Welfare. (2018). The children's health, well-being and services survey 2018. [https://thl.fi/documents/10531/3498578/LTH\\_4v\\_lomake\\_huoltajalle\\_EN\\_VESILEIMA.pdf/750186bb-30c7-4fe5-b21a-17ba7f48116f](https://thl.fi/documents/10531/3498578/LTH_4v_lomake_huoltajalle_EN_VESILEIMA.pdf/750186bb-30c7-4fe5-b21a-17ba7f48116f).
- Fox, B. H., Perez, N., Cass, E., Baglivio, M. T., & Epps, N. (2015). Trauma changes everything: Examining the relationship between adverse childhood experiences and serious, violent and chronic juvenile offenders. *Child Abuse & Neglect*, *46*, 163–173.
- Fréchette, S., Zoratti, M., & Romano, E. (2015). What is the link between corporal punishment and child physical abuse? *Journal of Family Violence*, *30*, 135–148.
- Freisthler, B., & Grunewald, P. J. (2013). Where the individual meets the ecological: A study of parent drinking patterns, alcohol outlets, and physical abuse. *Alcoholism: Clinical and Experimental Research*, *37*(6), 993–1000.
- Gilbert, R., Widom, C.S., Brownie, K., Fergusson, D., Webb, E., & Janson, S. (2009, Jan 3). Burden and consequences of child maltreatment in high-income countries. *The Lancet*, *373* (9657), 68–61. doi: [https://doi.org/10.1016/S0140-6736\(08\)61706-7](https://doi.org/10.1016/S0140-6736(08)61706-7). Epub 2008 Dec 4.
- Heinonen, A., & Ellonen, N. (2013). Are children with disabilities and long-term illnesses at increased risk of disciplinary violence? *Journal of Scandinavian Studies in Criminology and Crime Prevention*, *14*(2), 172–187.
- Helgeland, A., & Lund, I. (2017). Children's voices on bullying in kindergarten. *Early Childhood Education Journal*, *45*, 133–141.

- Act on Child Custody and Right of Access. Laki lapsen huollosta ja tapaamisoikeudesta 8.4.1983/361 <https://finlex.fi/en/laki/kaannokset/haku/>, (1983).
- Act amending the Child Protection Act. Lastensuojelulaki 1302/2014 <https://www.finlex.fi/fi/laki/alkup/2014/20141302>, (2014).
- Health Care Act (1326/2010). <https://www.finlex.fi/fi/laki/kaannokset/2010/en20101326>.
- Hyvärinen, S. (2017). Finns' attitudes to parenting and the use of corporal punishment 2017. Summary. The Central Union for Child Welfare. [https://www.lskl.fi/materiaali/lastensuojelun-keskusliitto/kuritusvakivalta\\_kysely\\_tivvistelma\\_en-1.pdf](https://www.lskl.fi/materiaali/lastensuojelun-keskusliitto/kuritusvakivalta_kysely_tivvistelma_en-1.pdf).
- Jones, L., Bellis, M. A., Wood, S., Hughes, K., McCoy, E., Eckley, L., ... Officer, A. (2012). Prevalence and risk of violence against children with disabilities: A systematic review and meta-analysis of observational studies. *The Lancet*, *Sep*8, 899–907.
- Junttila, N., Voeten, M., Kaukiainen, A., & Vauras, M. (2006). Multisource assessment of children's social competence. *Educational and Psychological Measurement*, *66* (5), 874–895.
- Kaess, M. (2018). Bullying: Peer-to-peer maltreatment with severe consequences for child and adolescent mental health. *European Child & Adolescent Psychiatry*, *27*(8), 945–947.
- Kienberger Jaudes, P., & Mackey-Bilaver, L. (2008). Do chronic conditions increase young children's risk of being maltreated? *Child Abuse & Neglect*, *32*, 671–681.
- Kihyun, K., Mennen, E. E., & Trickett, P. (2017, Feb). Patterns and correlates of co-occurrence among multiple types of child maltreatment. *Child & Family Social Work*, *22*(1), 492–502. <https://doi.org/10.1111/cfs.12268>
- Kirves, L., & Sajaniemi, N. (2012). Bullying in early educational settings. *Early Child Development and Care*, *182*, 383–400.
- Klobben, K., Mæhle, M., Kvello, Ø., Haugland, S., & Breivik, K. (2015). Prevalence of intrafamilial child maltreatment in the Nordic countries: A review. *Child Abuse Review*, *24*, 51–66.
- Lansford, J. E., Sharma, C., Malone, P. S., Woodlief, D., Dodge, K. A., Oburu, P., Pastorelli, C., Skinner, A. T., Sorbring, E., Tapanya, S., Tirado, L. M. U., Zelli, A., Al-Hassan, S. M., Alampay, L. P., Bacchini, D., Bombi, A. S., Bomstein, M. H., Chang, L., Deater-Deckard, K., & Di Giunta, L. (2014). Corporal punishment, maternal warmth, and child adjustment: A longitudinal study in eight countries. *Journal of Clinical Child & Adolescent Psychology*, *43*(4), 670–685.
- Li, S., Zhao, F., & Yu, G. (2019). Childhood maltreatment and intimate partner violence victimization: A meta-analysis. *Child Abuse & Neglect*, *88*, 212–224. <https://doi.org/10.1016/j.chiabu.2018.11.012>
- Moody, G., Cannings-John, R., Hood, K., Kemp, A., & Robling, M. (2018). Establishing the international prevalence of self-reported child maltreatment: A systematic review by maltreatment type and gender. *BCM Public Health*, *18*(1164), 10. <https://doi.org/10.1186/s12889-018-6044-y>
- Mulder, T. M., Kuiper, K. C., van der Put, C. E., G-J.J.M, S., & Assink, M. (2018). Risk factors for child neglect: A meta-analytic review. *Child Abuse & Neglect*, *77*, 198–210.
- Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Medicine*, *9*(11). [www.plosmedicine.org/e1001349](http://www.plosmedicine.org/e1001349).
- Official Statistics of Finland (OSF). (2017). *Population structure*. Helsinki: Statistics Finland. Access method: <http://www.stat.fi/til/vaerak/index.html> (e-publication, referred: 5.3.2021).
- Official Statistics of Finland (OSF). (2020). *Statistics on offences and coercive measures*. Helsinki: Statistics Finland. Access method: [http://www.stat.fi/til/rpk/2019/15/rpk\\_2019\\_15\\_2020-06-02\\_tie\\_001\\_en.html](http://www.stat.fi/til/rpk/2019/15/rpk_2019_15_2020-06-02_tie_001_en.html) (e-publication, referred: 4.9.2020).
- Paavilainen, E., & Flinck, A. (2015). *Efficient methods for identifying child maltreatment in social and health care. Nursing guideline - from evidence to outcomes*. Nursing Research Foundation. <https://www.hotus.fi/wp-content/uploads/2019/03/maltreatment-hs-sum-eng.pdf>.
- Pathwardhan, I., Duppong Hurley, K., Thompson, R. W., Mason, W. A., & Ringle, J. R. (2017). Child maltreatment as a function of cumulative family risk: Findings from the intensive family preservation program. *Child Abuse & Neglect*, *70*, 92–99.
- Peltonen, K., Ellonen, N., Pösö, T., & Lucas, S. D. (2014). Mother's self-reported violence toward their children: A multifaceted risk analysis. *Child Abuse & Neglect*, *38*, 1923–1933.
- Pichè, G., Huýnh, C., Clément, M.-É., & Durrant, J. E. (2016). Predicting externalizing and prosocial behaviors in children from parental use of corporal punishment. *International Journal of Child Development and Mental Health*. <https://doi.org/10.1002/icd.2006>
- Ports, K. A., Ford, D. C., & Merrick, M. T. (2016). Adverse childhood experiences and sexual victimization in adulthood. *Child Abuse & Neglect*, *51*, 313–322. <https://doi.org/10.1016/j.chiabu.2015.08.017>
- van der Put, C. E., Lancot, N., de Ruiter, C., & van Vught, E. (2015). Child maltreatment among boy and girl probationers: Does type of maltreatment make a difference in offering behavior and psychosocial problems. *Child Abuse & Neglect*, *46*, 142–151.
- Rositter, A., Byrne, F., Wota, A. P., Nisar, Z., Ofuavor, T., Murray, I., ... Hallahan, B. (2015). Childhood trauma levels in individuals attending adult mental health services: An evaluation of clinical records and structured measurement of childhood trauma. *Child Abuse & Neglect*, *44*, 36–45.
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L. R. A., & van IJzendoorn, M. H. (2015). The prevalence of Child maltreatment across the globe: Review of a series of meta-analyses. *Child Abuse Review*, *24*, 37–50.
- The Finnish Advisory Board on Research Integrity. (2012). Advice and materials. <https://tenk.fi/en/advice-and-materials>.
- Turner, H. A., Finkelhor, D., Hamby, S. L., & Shattuck, A. (2013). Family structure, victimization, and child mental health in a nationally representative sample. *Social Science & Medicine*, *87*, 39–51.
- Warmingham, J. M., Handley, E. D., Rogosch, F. A., Manly, J. T., & Cicchetti, D. (2019, Jan). Identifying maltreatment subgroups with patterns of maltreatment subtype and chronicity: A latent class analysis approach. *Child Abuse and Neglect*, *87*, 28–39. <https://doi.org/10.1016/j.chiabu.2018.08.013>
- Washington Group on Disability Statistics. (2017) Accessed 2017 [http://www.washingtongroup-disability.com/wp-content/uploads/2016/01/Child\\_Functioning\\_for\\_Children\\_Under\\_Age\\_5\\_Oct-2016\\_FINAL.pdf](http://www.washingtongroup-disability.com/wp-content/uploads/2016/01/Child_Functioning_for_Children_Under_Age_5_Oct-2016_FINAL.pdf).
- White, O. G., Hindley, N., & Jones, D. P. (2015, Oct). Risk factors for child maltreatment recurrence: An updated systematic review. *Medicine, Science and the Law*, *55* (4), 259–277. <https://doi.org/10.1177/0025802414543855> (Epub 2014 Aug 8).
- Widom, C., Czaja, S., & Dutton, M. A. (2014). Child abuse and neglect and intimate partner violence victimization and perpetration: A prospective investigation. *Child Abuse & Neglect*, *38*, 650–663.
- World Health Organization. (2020). <https://www.who.int/teams/social-determinants-of-health/violence-prevention/global-status-report-on-violence-against-children-2020>.
- The Declaration of Helsinki. World Medical Association. <https://www.wma.net/what-we-do/medical-ethics/declaration-of-helsinki/doh-oct2008/>, (2008).
- Yang, M.-Y., & Maguire-Jack, K. (2018). Individual and cumulative risks for child abuse and neglect. *Family Relations*, *67*, 287–301. <https://doi.org/10.1111/fare.12310>