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**Research Article** 



# A Decrease in Victimization From Physical Punishment in Finland in 1934–2014: An Evidence of an Emerging Culture of Nonviolent Parenting

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#### Abstract

**Objectives:** In 1983, as the second country in the world, Finland established a law criminalizing all kinds of physical punishment of children, also in the homes. The aim of the present study was to establish whether an earlier observed decrease of physical punishment of children in Finland (Osterman et al., 2014) could be replicated 3 years later. **Methods:** A representative sample of citizens in Western Finland (3639 respondents, 15–80 years old) completed a questionnaire providing retrospective data about their childhood exposure to physical punishment. Four types of physical punishment were measured: pulled by the hair, pulled by the ear, hit with a hand, and hit with an object. **Results:** A continuous significant decline in self-reported physical punishment after the establishment of the law was observed. Of the 15–20-year-old respondents, 45% had never been exposed to any of the four types of punishment. **Conclusion:** The present study replicates the findings from the previous study conducted 3 years earlier (Osterman et al., 2014). It is concluded that a shift in the mindset toward a culture of nonviolent childrearing can be observed in Finland.

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Subsequent to the establishment of a Finnish law in 1983<sup>[1]</sup> criminalising all types of physical punishment on children, in all situations, a significant decrease in victimisation from physical punishment was found in 2011.<sup>[2]</sup> A similar trend has been found in neighbouring Sweden, the first country to abolish physical punishment in all situations in 1979.<sup>[3]</sup> Decreasing trends regarding the physical punishment of children have also been reported in countries with incomplete legislation against it, like Canada,<sup>[4, 5]</sup> and parts of the US.<sup>[6–8]</sup>

In order to establish whether the observed decrease in Fin-

land reflects a permanent change in childrearing practices, a second survey was launched three years after (2014) the first one.<sup>[2]</sup> This approach was selected since, according to Cohen (1994),<sup>[9]</sup> the best way to secure the correctness of findings is to rely on the method of replication.

# Progress in International Legislation Against the Physical Punishment of Children

A clear association between the existence of a law against physical punishment and how often children are being victimised has been reported.<sup>[10, 11]</sup> A study including six European countries showed that children in countries without

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a law against physical punishment had been victimised 1.7 times more frequently than children from countries with laws in place.<sup>[12]</sup>

A continuously growing number of countries are now banning the physical punishment of children in all settings, including the home. On a global scale, 53 nations have by January 2018 protected children by law from physical punishment in all settings, and another 56 have made a commitment to do so.<sup>[13]</sup> Twenty-seven of the 47 member states of the Council of Europe have legislation in place prohibiting all physical punishment of children in all settings, and eight other states have expressed a commitment to adopt such legislation.<sup>[14]</sup> Nine member states are still completely without any commitment or a law against physical punishment.

Detailed reviews of the positive impact of prohibition, as well as research on the negative outcomes of physical punishment, have been compiled by the Global Initiative to End All Corporal Punishment of Children.<sup>[15-17]</sup> According to them, only 10% of the children on the planet live in countries where they are protected from physical punishment in all settings by law.

The right of the child to be protected from corporal punishment and other cruel or degrading forms of punishment was stated by the UN Committee on the Rights of the Child in 2006. Physical punishment was defined as any punishment in which physical force is used with the intention to cause some degree of pain or discomfort, however light. The Committee stated that physical punishment is invariably degrading to the child.<sup>[18]</sup> The convention further requires the removal of any legal provisions in any state that allows some degree of violence against children under the cover of wordings like "reasonable" or "moderate" chastisement. The underlying subjective motives or cultural beliefs of the perpetrator are, according to this definition, not relevant. In addition, children's status of dependence on their parents is of central importance. Despite improvement in legislation, the physical punishment of children is still widespread on a global scale.

# Changing Accepting Attitudes towards the Physical Punishment of Children

Despite scientific evidence to the contrary, there is still a widespread myth that physical punishment is both harm-less and effective. Furthermore, it has also been found that accepting attitudes are strong predictors for the use of physical punishment.<sup>[4, 19–22]</sup>

Still, experimental studies have shown that attitudes towards physical punishment can be changed in a fairly uncomplicated and cost-effective way merely by disseminating information about its negative consequences.<sup>[23–27]</sup> According to Robinson et al. (2005),<sup>[26]</sup> the ease with which respondents changed their opinion about the necessity of physical punishment in childrearing may be explained by the fact that scientific information on the detrimental effects of physical punishment reduced the dissonance between the respondents' moral values and their knowledge about the consequences.

Likewise, low parental educational levels have also been linked to more positive attitudes towards the physical punishment of children,<sup>[28]</sup> as well as with a higher frequency of physical punishment.<sup>[29, 30]</sup>

In Finland, acceptance of the physical punishment of children has declined steadily since the introduction of the law in 1983. In 1981, physical punishment was accepted by 44% of the respondents, but also then only in exceptional situations.<sup>[31]</sup> In a study carried out in 2014,<sup>[32]</sup> only 4% agreed completely with the statement that the physical punishment of children can be acceptable in certain very rare and difficult situations. Although change was slower in the beginning, it later accelerated, especially after 2004. Attitudes of women have changed more rapidly than those of men. In the period 2010–15, the Finnish Ministry of Social Affairs and Health carried out a national information programme aimed at strengthening children's human dignity and increasing the reciprocal respect between children and parents by reducing physical punishment.<sup>[33]</sup>

The physical punishment of children has been linked to other forms of aggression and violence, even at a societal level. Several types of child abuse have been shown to be strongly associated with parents' having accepting attitudes towards physical punishment.<sup>[34]</sup> Accepting attitudes towards killing, and even towards warfare, have been positively associated with accepting attitudes towards physical punishment of children.<sup>[35]</sup> Even a society's frequency of engagement in warfare has been shown to be related to high levels of physical punishment of children within that society.<sup>[36, 37]</sup>

# Adverse Concomitants of Physical Punishment of Children

An overwhelming number of scientific publications have shown associations between victimisation from physical punishment during childhood and antisocial behaviours, mental health problems, and personality disorders later in life. A meta-analysis conducted by Gershoff and Grogan-Kaylor (2016)<sup>[38]</sup> of effect sizes from 111 studies, representing over 160.000 children found that spanking was associated with increased risk for 13 of 17 different negative outcomes. The study did not find any support for the assumption that physical punishment is associated with adverse concomitants only when classified as abuse.

Physical punishment of children has also been linked to medical problems later in life; cardiovascular disease, arthritis, and obesity,<sup>[39]</sup> stress, asthma, epigastric pain,<sup>[40]</sup> cardiac disease, asthma,<sup>[41]</sup> and cancer.<sup>[41, 42]</sup>

## Validity of Retrospective Reports of Childhood Abuse

The accuracy of retrospective reports on childhood abuse has been investigated in several studies. Brewin, Andrews, and Gotlib (1993),<sup>[43]</sup> in a review of the literature, conclude that it is not unreliable as previously thought. A number of later studies have also found evidence for the reliability of retrospective reports on childhood maltreatment and abuse.<sup>[44-47]</sup> Under-reporting has, on the other hand, been found in a number of studies; childhood trauma,<sup>[48]</sup> childhood abuse,<sup>[49]</sup> parental maltreatment,<sup>[45]</sup> and childhood exposure to physical and sexual abuse.<sup>[50, 51]</sup> Retrospective reports of childhood victimisation can thus, based on the literature, be considered relatively accurate.

#### Aim of the Study

The study was aimed at establishing whether the earlier observed decrease of physical punishment of children in Finland<sup>[2]</sup> could be replicated three years later, as part of a continuing trend towards nonviolent parenting. The study also examines the association between parental educational level and levels of physical punishment of children.

The aim of the study was to at investigate whether an earlier observed decrease of physical punishment of children in Finland<sup>[2]</sup> could be replicated.

### Method

The present study was conducted in 2014 by the Finnish National Institute for Health and Welfare, 31 years after the complete ban on physical punishment. A similar study was conducted three years earlier, in 2011;<sup>[2]</sup> the sample drawn in 2014 was from the same region. The samples of 2011 and 2014 were independent from each other.

#### Participants

A sample of citizens residing in Western Finland (15–80 years of age) was drawn by the population information system of the Population Register Centre. Stratified random sampling was applied for mother tongue and location of residence. Ten thousand questionnaires were distributed by regular mail. The questionnaire was completed by 3,639 persons (2.114 females and 1.525 males), the response rate being 43.3% for women and 31.4% for men. Of the respondents, 79.5% had Finnish, 19.0%

Swedish, and 1.5% some other language as their mother tongue. The oldest participants were born in 1934, and the youngest in 1994. The participants were divided into seven age groups according to year of birth (I=1994–99, II=1984–93, III=1974–83, IV=1964–73, V=1954–63, VI=1944–53, VII=1934–43).

### Instrument

The Brief Physical Punishment Scale (BPPS)<sup>[52]</sup> was used to measure victimisation from physical punishment during childhood. The respondents estimated on a five-point scale (ranging from 0=never to 4=very often) how often they had been victimised from the following by an adult during their childhood: (a) their hair was pulled, (b) their ear was pulled, (c) they were hit with the hand, and (d) they were beaten with an object. After it was established that the Cronbach' Alpha for the scale was sufficient ( $\alpha$ =.76), a summed variable for physical punishment was calculated by adding the four items together and dividing the sum by four, in order to keep the scale range as 0–4.

Socioeconomic status of the respondents was not included in the survey due to the high economic equality of the Finnish population;<sup>[53]</sup> for further details, see Osterman et al. (2014).<sup>[2]</sup> Instead, the educational level of parents of the respondents was included as a measure. Parental education was categorised as either low (elementary, middle, and comprehensive school); medium (high school, vocational and vocational high school); or high (university level education).

## Procedure

The survey was promoted in the local media in advance; an article describing the significance and goals of the survey was published in the newspapers. Two reminders were later sent out to those recipients who had not yet returned the questionnaire at the time of the deadline. An in-depth description of the procedure, the questionnaire, and the psychometric properties of the measures can be found in Reini et al. (2014).<sup>[54]</sup>

## **Ethical Considerations**

Informed consent was obtained from all the participants in the study. The youngest participants were 15 years of age; according to the Finnish Medical Research Act, parental consent is not required when a minor has reached the age of 15.<sup>[55]</sup> The project was ethically approved by the National Institute for Health and Welfare in Finland, and it adheres to the principles concerning human research ethics of the Declaration of Helsinki,<sup>[56]</sup> as well as guidelines for the responsible conduct of research of the Finnish Advisory Board on Research Integrity (2012).<sup>[57]</sup>

|                           | F      | df        | p≤   | η <sub>p</sub> ² | Group with<br>lower mean   |
|---------------------------|--------|-----------|------|------------------|--|
| Effect of sex             |        |           |      |                  |  |
| Multivariate analysis     | 27.74  | 4, 3287   | .001 | .033             |  |
| Univariate analyses       |        |           |      |                  |  |
| Pulled by the hair        | 22.36  | 1, 3290   | .001 | .007             | Females  |
| Pulled by the ear         | 103.70 | 1, 3290   | .001 | .031             | Females  |
| Hit with the hand         | 5.88   | 1, 3290   | .015 | .002             | Females  |
| Beaten with an object     | 3.72   | 1, 3290   | .054 | .001             | Females  |
| Effect of age group       |        |           |      |                  |  |
| Multivariate analysis     | 10.28  | 24, 13160 | .001 | .018             |  |
| Univariate analyses       |        |           |      |                  |  |
| Pulled by the hair        | 17.72  | 6, 3290   | .001 | .031             | l < II–VII<br>V > VI, VII (II)   |
| Pulled by the ear         | 6.78   | 6, 3290   | .001 | .012             | II > VII (VI, I)<br>(VII < IV, V)  |
| Hit with the hand         | 8.39   | 6, 3290   | .001 | .015             | I < (IV) V–VII<br>II < V, VI (VII)   |
| Beaten with an object     | 15.51  | 6, 3290   | .001 | .028             | $\label{eq:1} \begin{array}{l} {\sf I} < ({\sf III}),  {\sf IV} - {\sf VII} \\ {\sf II} < {\sf V},  {\sf VI},  ({\sf VII}) \\ {\sf III} < {\sf V},  {\sf VI} \\ {\sf V} > {\sf I-} {\sf IV} \end{array}$ |
| Effect of the interaction |        |           |      |                  |  |
| Multivariate analysis     | 1.66   | 24, 13160 | .023 | .003             |  |
| Univariate analyses       |        |           |      |                  |  |
| Pulled by the hair        | 3.46   | 6, 3290   | .002 | .006             | See the text   |
| Pulled by the ear         | 0.92   | 6, 3290   | ns   | .002             |  |
| Hit with the hand         | 1.45   | 6, 3290   | ns   | .003             |  |
| Beaten with an object     | 1.72   | 6, 3290   | ns   | .003             |  |

**Table 1.** Results of a sex x age group (2x7) multivariate analysis of variance (MANOVA) with four types of physical punishment as dependent variables (n=3.639)

Age group according to year of birth: I=1994–99, II=1984–93, III=1974–83, IV=1964–73, V=1954–63, VI=1944–53, VII=1934–43. For results in brackets p=.05–.09.

# Results

# Sex and Generational Differences in Exposure to Physical Punishment

A multivariate analysis of variance (MANOVA) was conducted with sex and age group as independent variables and the four measured types of physical punishment as dependent variables. The multivariate analyses were significant for both sex and age group, as well as for the interaction (Table 1, Fig. 1).

The univariate analyses revealed that females had been significantly less pulled by the hair, pulled by the ear, and hit with the hand than males during their childhood. There was a tendency towards a significant difference indicating that females had also been less beaten with an object. Respondents in the youngest age group had been significantly less often pulled by the hair compared to all other age groups. The youngest age group had been hit with the hand significantly less often than respondents born



**Figure 1.** Mean values of four types of physical punishment in seven age groups (n=3.639).

between 1934 and 1963; a tendency towards a significant difference was also found in comparison with those born 1964–73. Respondents in the youngest age group had been beaten with an object significantly less often than respondents born 1934–73, a tendency was also found re-



**Figure 2.** Mean values for how often females and males in different age groups had been hair-pulled during childhood (n=3.032).

garding those born 1974–83. The results were in line with those of the previous study.<sup>[2]</sup>

An interaction effect was found between age group and sex. Males in the youngest age group reported having been pulled by the hair significantly less often than females of the same age group (Fig. 2).

# Comparison of Physical Punishment Before and After the Law

Respondents born before the law against physical punishment was passed (81.2% of the sample) reported significantly higher scores on three kinds of physical punishment compared with respondents born after the law; pulled by the hair [t(3524)=6.66, p<.001,  $\eta$ 2=.012], hit with the hand [t(3374)=6.41, p<.001,  $\eta$ 2=.012], and beaten with an object [t(3376)=7.52, p<.001,  $\eta$ 2=.016]. Victimisation from being pulled by the ear did not differ significantly before and after the law. Regarding the summed variable with the four items added together, the respondents born after the law gave significantly lower scores (2.50 vs. 1.81) [t(2689)=6.17, p<.001,  $\eta$ 2=.014].

#### Language Group and Physical Punishment

Respondents belonging to the Swedish-speaking minority in Finland had significantly lower scores on the summed variable of physical punishment in comparison with the Finnish-speakers [t (3254)=3.63, p<.001,  $\eta$ 2=.004].

### **Educational Level of Parents**

In order to assess the association between the level of parental education and the use of physical punishment in childrearing, a three-level variable was used for the measurement of educational level. Since the educational system in Finland has changed during the 20<sup>th</sup> century, the two oldest age groups were excluded from the comparison.

A significant association was found between low maternal educational level and a high frequency of physical pun-



**Figure 3.** Mean values of frequencies of physical punishment of children and parental educational levels (n=3.639).

ishment of the child [F(2, 755)=10.26, p<.001,  $\eta_p^2$ =.026] (n=758) (Fig. 3). Scheffe's test revealed that the difference was significant between low and medium level education (p=.013), between medium and high (p=.034) and between low and high (p<.001) (0.67, 0.51, 0.43). A similar association was found between a low paternal educational level and a high frequency of physical punishment of the child [F(2, 885)=7.94, p<.001,  $\eta_p^2$ =.018] (n=888). In this case, Scheffé's test revealed that the difference was significant between low and medium level education (p=.033), there was a tendency between medium and high level of education (p=.069), and a significant difference between low and high education (p<.001) (0.60, 0.49, 0.36).

# Changes over Time in Absence of Physical Punishment Against Children

The percentages of respondents, females and males, in seven age groups, who were never victimised during childhood from the four different types of physical punishment are presented in Table 2. The number of children never exposed to physical punishment was found to increase rapidly during the recent decades. In the three age groups born after the introduction of the law, the percentages of children never exposed to hair-pulling increased steadily (28.8%–30.4%–55.6%); the same trend was found for never hit with the hand (72.9%–81.0%–83.6%), as well as for never hit with an object (80.1%–84.9%–94.9%). Never pulled by the ear decreased temporarily in the 80s only to increase later (72.5%–66.6%–78.1%).

The percentage of respondents who had never been exposed to any type of physical punishment increased slowly after 1964 (Table 3). In all age groups except the youngest, significantly more females than males were never exposed, but in the youngest age group born in the period 1994–99, this difference was no longer present. Whether this finding reflects the beginning of a new trend remains to be seen. A significant increase in never being exposed

|                         | Never<br>pulled<br>by the hair | Never<br>pulled<br>by the ear | Never<br>hit with<br>the hand | Never<br>hit with<br>an object | Total |
|-------------------------|--------------------------------|-------------------------------|-------------------------------|--------------------------------|-------|
|                         | %                              | %                             | %                             | %                              | n     |
| Finnish-speakers        |                                |                               |                               |                                |       |
| Females                 | 30.6                           | 85.2                          | 75.4                          | 75.7                           | 1.636 |
| Males                   | 19.9                           | 68.3                          | 67.8                          | 68.5                           | 1.178 |
| Swedish-speakers        |                                |                               |                               |                                |       |
| Females                 | 45.6                           | 74.3                          | 69.9                          | 88.8                           | 379   |
| Males                   | 27.3                           | 47.2                          | 69.0                          | 87.2                           | 282   |
| Age groups (born)       |                                |                               |                               |                                |       |
| Affected by the law     |                                |                               |                               |                                |       |
| 1994–99                 | 55.6                           | 78.1                          | 83.6                          | 94.9                           | 254   |
| 1984–93                 | 30.4                           | 66.6                          | 81.0                          | 84.9                           | 385   |
| 1974–83ª                | 28.8                           | 72.5                          | 72.9                          | 80.1                           | 417   |
| Not affected by the law |                                |                               |                               |                                |       |
| 1964–73                 | 22.3                           | 70.0                          | 71.8                          | 78.3                           | 469   |
| 1954–63                 | 20.4                           | 74.1                          | 68.7                          | 68.5                           | 686   |
| 1944–53                 | 28.3                           | 77.1                          | 66.6                          | 69.6                           | 870   |
| 1934–43                 | 32.3                           | 82.5                          | 68.8                          | 72.4                           | 558   |
| Whole sample            | 28.8                           | 74.8                          | 71.4                          | 75.5                           | 3.639 |

**Table 2.** Percentage of finnish- and swedish-speakers, males and females of seven different age groups who were never during childhood exposed to four different forms of physical punishment (n=3.639)

a: 10-years old, or younger when the law was passed.

**Table 3.** Sex differences in percentages of respondents in seven age groups never exposed to any of four types of physical punishment (n=3.458)

| Year of birth | Never exposed to any of four<br>types of physical punishment |             |           | χ²    | p≤   | Group with       |
|---------------|--|-------------|-----------|-------|------|------------------|
|               | Total (%)  | Females (%) | Males (%) |       |      | higher frequency |
| 1994–99       | 45.1   | 44.4        | 46.4      | 0.09  | ns   | _                |
| 1984–93       | 22.9   | 27.3        | 16.4      | 5.58  | .012 | Females          |
| 1974–83       | 20.1   | 23.6        | 14.1      | 5.01  | .016 | Females          |
| 1964–73       | 18.2   | 23.1        | 11.2      | 10.62 | .001 | Females          |
| 1954–63       | 16.9   | 21.4        | 10.3      | 13.95 | .001 | Females          |
| 1944–53       | 22.5   | 30.5        | 12.4      | 38.58 | .001 | Females          |
| 1934–43       | 26.2   | 33.8        | 17.7      | 17.94 | .001 | Females          |

(22.9%–45.1%) was found between the two youngest age groups [ $\chi^2(1)$ =14.81, p<.001,  $\phi^2$ =0.04].

# Comparison Between Two Studies with Data Collected in 2011 and 2014

The dataset of the present study (N=3.639) was combined with that of the previous study (Osterman, et al., 2014; N=4,624), and groups based on year of birth with five-year intervals were adjusted to match each other (1934–40, 1941–50, 1951–60, 1961–70, 1971–80, 1981–90, 1991–96, 1997–99). A multivariate analysis of variance (MANOVA) was conducted with year of data collection (2011/2014), birth cohorts as independent variables, and the four measures of physical punishment during childhood as dependent variables. The results showed no significant interaction between year of data collection and year of birth of the respondents [F(24, 30480)=0.96, ns,  $\eta_p^2$ =.001]. The finding indicates that responses given at the two different points in time of data collection, three years apart, were almost identical within the age groups, adding validity to the study.

When comparing data for the youngest age group (15–20 year olds) from the study carried out in 2011 with the present study (with data collected in 2014), it was found that the percentages of never exposed respondents was significantly higher in 2014. The difference was significant for both females and males. Percentages of respondents who

| Table 4. Percentages of 15–20 year old respondents who werenever victimised from any of four types of physical punishment. |         |         |   |  |  |
|--|---------|---------|---|--|--|
| Comparisons between surveys collected 2011 and 2014 (n=3.639)  |         |         |   |  |  |
|  | Survey  | Survey  |   |  |  |
|  | 2011    | 2014    |   |  |  |
| Respondents born   | 1991–96 | 1994–99 |   |  |  |
| Females  | 30.9 %  | 44.4 %  | $\chi^{2}_{(1)}$ =5.31, p<.05, $\varphi^{2}$ =.01 |  |  |
| Males  | 25.0 %  | 46.4 %  | $\chi^{2}_{(1)}$ =11.81, p<.001, $\phi^{2}$ =.05  |  |  |
| Total  | 28.4 %  | 45.1 %  | $\chi^{2}_{(1)}$ =17.76, p<.001, $\phi^{2}$ =.03  |  |  |

had never been exposed to any of the four types of physical punishment measured are presented in Table 4. It should be noticed that though the youngest cohorts in the two studies (1991–96 and 1994–99) were partly overlapping regarding year of birth, the samples were completely independent.

# Discussion

A shift in the mindset towards a culture of nonviolent childrearing seems to be underway in Finland. The principal aim of the study was to at investigate whether an earlier observed decrease of physical punishment of children in Finland<sup>[2]</sup> could be replicated. It was found that the decrease in physical punishment showed an identical development for older age groups; for the youngest age groups, however, the pace of the decrease seems to have accelerated still further. The percentage of respondents who had never been exposed to any kind of physical punishment during their lifetime was found to increase steadily over time. When comparing the youngest age group (born 1994-99) with the second youngest group (born 1984-93) (Table 3), there was a substantial increase from 23% to 45% of those who had never been exposed to any of the types of physical punishment included in the study. Among respondents in the youngest age group, 84% had never been hit with the hand, and 95% had never been hit with an object (Table 2).

## **Comparison Between the Two Studies**

When the results of the present study were compared to those of the study made three years earlier,<sup>[2]</sup> the percentage of never exposed 15–20 year old respondents was significantly lower in 2011 than in 2014 (28% vs. 45%; Table 4). This change is remarkable, especially since it has taken place over a very short period of time, only three years. This age group is in fact the first generation with parents born after the law against physical punishment was implemented, and, accordingly, the parents were themselves directly affected by the law during their childhood. The finding reflects the transmission of a culture of nonviolent childrearing from one generation to the next. A shift in cognitive and psychological aspects of childrearing seems to have occurred when a generation that was brought up non-violently transmits their attitudes and behaviours to their own children. At this point, the culture of nonviolent parenting has spread rapidly, as shown especially in the case of boys in this study (Fig. 2).

### The Oldest Age Group

Contrary to what might have been expected, the two oldest age groups (born 1934-53) were not more victimised from physical punishment than younger age groups (Fig. 1, Table 1). Also, when the prevalence of never victimised respondents was examined (Table 3), the percentages in the oldest cohorts were not lower than in the younger cohorts, with the exception of the youngest group (born after 1994). The percentage of never victimised respondents among those born 1934–53 was especially high for females (33.8%). The finding is similar to that of Osterman et al. (2014).<sup>[2]</sup> It is also similar to the results of MacMillan, Boyle, Wong, Duku, Fleming, and Walsh (1999)<sup>[58]</sup> who found a higher percentage of respondents in the oldest age group who had never been slapped or spanked during their childhood in comparison with younger age groups. Taillieu et al. (2014)<sup>[7]</sup> also made a similar finding regarding harsh physical punishment. Based on these findings we hypothesise that, due to the multitude of adverse psychosocial and health outcomes related to physical punishment during childhood, physical punishment might be associated with a reduced life expectancy. Physical punishment has been shown to be associated with a number of health problems later in life, like stress,<sup>[40]</sup> cardiovascular disease,<sup>[39]</sup> and cancer.<sup>[41, 42]</sup> Individuals in the oldest cohort who received the harshest treatment by their parents during childhood might consequently no longer be alive, and therefore be under-represented in the oldest cohort. The underlying connection between physical punishment and physical illness may be explained in terms of toxic stress. Chronic stress gives rise to modifications of brain structure, synapses and receptors, and higher cortisol levels interfere with myelination. This in turn may be translated into health problems later in life.[59]

# Comparison of Physical Punishment Before and After the Law

Respondents born before the law reported significantly higher scores on having been pulled by the hair, hit with the hand, and beaten with an object compared with respondents born after the law. They also scored significantly lower on the summed variable of physical punishment. The differences were all significant but with relatively small effect sizes. Among respondents born after the law, the percentages of never exposed to hair-pulling, never hit with the hand or with an object increased steadily (Table 2).

## **Educational Level of Parents**

An association was found between low parental educational level and a high frequency of physical punishment of the child. This was the case for both maternal and paternal educational level. The finding is similar to previous studies.<sup>[29, 30]</sup>

## Language Group and Physical Punishment

Respondents pertaining to the Swedish-speaking minority in Finland scored lower on the summed variable of physical punishment in comparison with the Finnish-speakers, the result replicates that of Sariola and Uutela (1992)<sup>[60]</sup> and Osterman et al. (2014).<sup>[2]</sup> The finding might be explained by the fact that the minority of Swedish-speakers in Finland live mainly along the coastal area and in the archipelago which is close to Sweden. Sweden has long been a forerunner in child protection; the decline in physical punishment in the country has been documented.<sup>[3]</sup> Swedish-speakers in Finland also share close ties with Sweden which are based not only on language but also on cultural similarities going back to the time before the separation between Finland and Sweden into two different countries in 1809.

### Limitation of the Study

A limitation of the study is that it was not longitudinal. A design with collecting data before and after the law against physical punishment would have been preferable. It cannot be unequivocally proven that the law is the reason for the decline in physical punishment. However, it seems reasonable to assume that is has had an effect.

#### Disclosures

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