

ORIGINAL ARTICLE

# Childhood sexual abuse of women in Greenland and its developmental correlates among their children

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## ABSTRACT

**Objectives.** The objective was to study the prevalence of childhood sexual abuse (CSA) among the mothers of children in Greenland and its association with the psychosocial adjustment of their children.

**Study design.** The study was based on a 2007–2008 survey of a national sample of children in Greenland designed by researchers at SFI – The Danish National Centre for Social Research in collaboration with the Greenlandic Home Rule. The survey was conducted via telephone interviews with the children's mothers.

**Methods.** The relationship between the mothers' childhood sexual abuse and their children's psychosocial adjustment was examined using OLS regression. Each mother's CSA was measured by a direct question and the child's psychosocial adjustment was measured by the total difficulties score on the Strengths and Difficulties Questionnaire.

**Results.** Thirty-six percent of the mothers reported having been sexually abused as children. The psychosocial adjustment of the children in the sample overall was good, with few children scoring on the upper end of the scale, indicating maladjustment. A strong inverse relationship between the mothers' childhood sexual abuse and the children's adjustment was found after controlling for demographic and socio-economic factors.

**Conclusions.** Overall, children of mothers who were victims of CSA suffer from greater psychosocial maladjustment than children whose mothers were not victims of CSA.

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**Keywords:** Greenland, childhood sexual abuse (CSA), child development

## INTRODUCTION

The subject of children's well-being in Greenland has drawn the attention of both practitioners and politicians since the late 1990s. Conferences in 2000 and 2003 (1,2) and research reports have highlighted the problems in the area. One problem that has drawn particular attention is the extent of childhood sexual abuse (CSA). Perceptions of what constitutes sexual abuse differ as do the definitions used by researchers and others. Methodological problems, including those of definition, mean that estimates of the incidence and prevalence of CSA can vary considerably across studies. There is no consistent definition of sexual abuse in the literature, which hinders international comparisons (3). Estimates of prevalence rates of CSA among women in international research range from 20–32 % (4). In comparison, a 2004 study of Greenlandic youth found that 28% of girls had been subjected to sexual abuse before the age of 15 (5) while in a 2009 study of child well-being, 35% of the children's mothers reported that they had themselves been subjected to sexual abuse as children (6). The 2008 Greenland population survey finds a similar proportion of adult women, who report having been subjected to sexual abuse as children (7). These figures suggest that the prevalence of CSA among women in Greenland may be among the highest documented in the world. It is important to keep in mind, however, that most cases of CSA, however it is defined, go unreported to authorities (3).

The consequences of sexual abuse on the social and emotional well-being of children and on their development are increasingly well documented. There is also an association between having suffered the trauma of CSA

and experiencing higher rates of a wide range of problems in psychological and social functioning in adult life (4). Among these problems are depression, anxiety, phobias (8), low self-esteem, and relationship and parenting difficulties (9,10).

Mothers' long-term problems associated with experiencing CSA can have an impact on their children's adjustment. Emotional problems, including depression, anxiety and eating disorders along with chronic and multiple physical health problems, can interfere with a woman's availability to her children and cause adult responsibilities to be transferred onto a child because of the mother's inability to function (11–13). The past trauma of CSA along with other types of child maltreatment, neglect and adversities create risk factors that disrupt a mother's ability to comfort, nurture, care for and protect her child (11,14). CSA is associated with the disruption of parenting in a number of ways. First, mothers who were sexually abused as children report confusion about healthy family characteristics. In addition, CSA has been associated with a woman's more negative views of herself as a parent and the greater use of physical punishment strategies even after accounting for differences in the quality of relationships in her family of origin (15). Second, these mothers are at risk for marrying or establishing relationships with partners who are abusive, both to themselves and to their children (11,12). Third, CSA disrupts a mother's ability to express and moderate a range of feelings, which in turn can have repercussions for her children; victims may have difficulties establishing clear generational boundaries with their children, may be more permissive as parents and may be more likely to use harsh physical discipline (16). The association between different aspects of paren-

ting and child psychosocial adjustment is also well documented (17,18). Finally, mothers coming from family environments where sexual abuse occurred report having difficulties that can impact their own children. These include an inability to speak up in the presence of child maltreatment, less ability to show affection and warmth, less acceptance of their children and excessive anger and hostility towards their children (11,14). In sum, international research suggests that, through a number of pathways – among them family climate, depression, substance abuse, problems in expressing feelings and emotions, poor or disrupted parenting behaviour – a mother's experience of CSA will negatively affect the well-being of her children.

Drawing on the above discussion, we tested the following hypothesis in Greenland: the children of women experiencing CSA were likely to manifest greater psychosocial maladjustment compared to those children whose mothers were not victims of CSA. This task was imperative because the intergenerational consequences of the globally high rates of CSA in Greenland had not been assessed before.

## MATERIAL AND METHODS

The study drew on a 2007–2008 survey of the well-being of Greenlandic children and their families, based on a probability sample representing children aged 0–14 years in the towns and settlements of Greenland (4). The survey was designed by researchers at SFI – The Danish National Centre for Social Research in collaboration with the Greenlandic Home Rule and was authorized by the Danish Data Protection Agency, which authorizes the processing of personal data for scientific or statistical

purposes. A random sample of 1,300 children was drawn by Statistics Greenland from a sampling frame consisting of all children in the age group 0–14 years that were living in Greenland in July 2008 and uniquely identified by their personal identification numbers. The families of the selected children received a letter requesting them to participate in the survey. At the same time, TV spots were aired informing viewers about the survey. Following this, the families were contacted by telephone and asked if they would like to participate. Of these families, 12 had moved to Denmark. Of the parents of the remaining 1,288 children, 1,160 agreed to participate in the survey. A standardized survey questionnaire consisting mainly of closed-ended questions was administered by telephone to the children's parents by local (i.e., Greenlandic) interviewers. It was arranged that families without a telephone could use the municipal telephone facilities for the interview. In the few cases where the mothers' participation was not possible, the questionnaire was administered to the children's fathers, or foster fathers or mothers. Male respondents to the survey (7% of the entire sample) and those who answered that they were the child's foster mother or had "another" (i.e., unspecified) relationship with the child are excluded from the analysis in this paper. This left 1,031 respondents (79% of the original sample drawn), of which 9 (less than 1%) were the children's step-mothers. In addition, the sample was limited to children above the age of 3, for whom the Strengths and Difficulties Questionnaire (SDQ) was a valid instrument, and to observations with no missing responses on any of the variables used in the analysis. This yielded a final sample of 770 observations (60% of the sample drawn) of which 352 (46%) were girls and 421 (54%) were boys.

Next, the children in the retained sample (770 observations) were compared to those excluded from the analysis (390 observations). The mean age of children in the retained sample was significantly higher: 9.1 years (SD=3.2) vs. 5.2 years (SD=4.2). However there was no statistically significant difference between the proportion of boys in the sample and among those excluded: 54.4% vs. 52.3%. There were few major sociodemographic differences between the mothers in the sample analysed and those excluded from the analysis. Those in the sample analysed were older (mean age 36 years vs. 31 years) and had experienced a shorter spell of unemployment in the period 2005–2007 (0.49 years vs. 0.61 years). The 2 groups were the same with respect to the proportion not having a vocational education and economic condition (measured by ability to afford basic necessities). Nor was there any statistically significant difference between the 2 groups with respect to the proportion of mothers experiencing sexual abuse.

### ***Measuring children's psychosocial adjustment***

We focused on the relationship between mothers' CSA and their children's overall psychosocial development (covering emotional symptoms, conduct problems, hyperactivity/inattention and peer relationship problems) measured by the Total Difficulties Score (TDS) on the Strengths and Difficulties Questionnaire (SDQ). The SDQ is a behavioural screening questionnaire that provides a measure of the adjustment and psychopathology of children and adolescents (4–16 year olds) (19,20) and is a particularly useful measure among the general population in which the majority of children are healthy (21). The overall reliability and validity of the SDQ have been found to

be satisfactory in studies across the world, including the Nordic countries (21–23), except Greenland, where the instrument is yet to be validated. The TDS is calculated by calculating responses to 20 questions measuring positive and negative attributes, the answer choices to which are “not true,” “somewhat true” and “certainly true.” The resulting score can range from 0–40, with a higher score indicating poorer adjustment.

### ***Identification of mothers subjected to CSA***

Mothers who were sexually abused as children were identified through the following question: “Were you yourself sexually abused as a child?” Response choices were “Yes” or “No.” The reason for this wording was that the question followed a series of questions related to the mother's knowledge or suspicion of sexual abuse of her child. Children were identified as having been subjected to sexual abuse through 4 questions, which had the following preamble: “In the past few years, there have been a number of cases in the newspapers involving sexual violation (*seksuelle krænkelser* in Danish) or sexual assault (*seksuelle overgreb* in Danish) of children. By sexual violation we mean, for instance, the exhibition and fondling of sex organs, the showing of pornographic films and by sexual assault we mean masturbation, ejaculation, intercourse.” The questions covered sexual abuse by adults both outside the family (e.g., teachers, personnel monitoring after-school activities, those taking care of the child or strangers) and from within the family (e.g., father, grandfathers, uncles, male cousins or female relatives).

Building up to the question of the sexual abuse of the mother in this way and the explicit definition of sexual abuse helped to reduce

motivated misreporting for such sensitive questions, which were likely to be seen as intrusive or embarrassing by some respondents. The question also had weaknesses, which should be kept in mind when interpreting the findings. For example, it grouped different sexual acts of varying gravity together and did not ask about the duration, frequency or perpetrators of the abuse, or the age at which it occurred.

The child's age and sex were measured through direct questions about the month and year of the child's birth and whether the child was a boy or a girl. The mother's education was measured with a question about whether the mother had received a vocational education. The family's economic condition was measured through a battery of questions with the following stem: "Have you or the family been unable to do the following within the past year for economic reasons?" The battery contained the following 8 items, with response choices of "Yes" or "No": "pay the house rent on time"; "pay bills on time"; "heat the house"; "go on holiday"; "undertake house repairs"; "buy new footwear for yourself, your husband or for the child"; "buy new clothes for yourself, your husband or for the child"; and "engage in leisure time activities." Using these items we constructed an index of family poverty from 0–8 and dichotomised it into two groups: those who answered "Yes" on 4 or more of the 8 items (35% of the valid responses, coded 1=poor) and those who did not (=0).

## RESULTS

Ordinary least squares (OLS) regression was used to assess the relationship between the mothers' CSA and the children's maladjust-

ment. The analyses were performed with Stata Statistical Software: Release 9.

### *Child psychosocial maladjustment*

There was a high response rate (98%) on the SDQ items used for constructing the scale of psychosocial adjustment. The TDS ranged from 0–32 (mean=6.8; SD=4.9), indicating that the children in the sample were relatively well adjusted. The relatively narrow range of the TDS may be a result of sample selection. Those in the sample analysed were on average 4 years older than those excluded, and studies indicate that in some countries the TDS is negatively associated with age (22,25). As expected, the mean score for boys was higher than for girls (7.3 vs. 6.1;  $p<0.001$ ) (21,24). It was also higher for those in the 3–9 years age group than for those in the 10–14 years age group (7.3 vs. 6.2,  $p<0.001$ ), reflecting the overall negative correlation between the TDS and age variables (-0.12,  $p<.001$ ), also found in previous research (22,25). The internal consistency of the scale was satisfactory (Cronbach's alpha=0.76).

### *Mothers' subjected to CSA*

Thirty-six percent of the mothers responded that they had been sexually abused during childhood. This figure is similar to those found in previous research (7).

While most previous studies have focused on validating the SDQ scale, a recent study (24) has evaluated the relationship between SDQ scores and a family's socio-economic status (SES) and found that children coming from lower SES families score worse (i.e., higher) on the SDQ scale. Therefore, controls for mother's education and family economic situation, in addition to the child's age and sex, were introduced in the regression analyses.

**Table 1.** Results of OLS regression of SDQ total difficulties score on the mother's childhood sexual abuse and other variables (n=770). Unstandardized coefficients with standard errors in parentheses.

	Model 1	Model 2
Mother victim of CSA	1.86 (0.36)***	1.68 (0.36)***
Child sex (referent: female)		1.05 (0.34)**
Child's age		-0.17 (0.05)**
Family with poor economic condition (referent: good condition)		0.29 (0.36)
Mother with vocational education		0.52 (0.34)
Constant	6.10 (0.21)**	6.74 (0.61)***
R-squared	0.03	0.06

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001

***Association between the mothers' childhood sexual abuse and their children's psychosocial maladjustment***

The results of the OLS regression in Table 1 suggest overall that the children of women who experienced sexual abuse during childhood were more likely to be maladjusted. The results for Model 1, whose predictor was only that the mother was a victim of CSA, indicated that the total difficulties score of children of CSA victims was on average 1.86 units above that of the children whose mothers were not victims of CSA. The coefficient was highly significant (p<0.001). When the control variables measuring child's sex and age, family's economic condition and mother's educational level were introduced in Model 2, the result was altered only slightly (b=1.68, p<0.001). In other words, children of mothers who were CSA victims were more maladjusted compared to those whose mothers were not CSA victims. Of the control variables, only the child's sex and age were significant predictors. As expected, boys had a higher total difficulties score on average than girls, and older children had a lower score.

**DISCUSSION**

The results of the analysis suggest, in agreement with the findings of previous research, that children of female victims of CSA are likely to be more maladjusted as measured by the SDQ total difficulties score, after controlling for the child's age and sex, the mother's educational level and the family's economic situation.

However, these findings need to be interpreted with caution given the limitations of this study. Like most other studies on childhood abuse sequelae, the cross-sectional and retrospective methodology of the current research combined with a single source for both explanatory and outcome variables (the mother) increases the possibility of various types of bias in the results (26). The information on the frequency of each child's adjustment problems was reported by the child's mother, and her report may well have been affected by her well-being, in particular if she herself had been subject to abuse. In addition, the use of a broad measure of sexual abuse that conflates various types of abuse and does not capture duration, frequency and perpetrator

of abuse increases the imprecision of the results. Though the independent variable (mother's CSA) clearly precedes the dependent variable (child maladjustment) in time, the cross-sectional nature of the study suggests caution in giving a causal interpretation regarding the intergenerational transmission of the correlates of CSA. The relationship between self-reported CSA and the focal child's maladjustment may have been due to other variables such as other child abuse and adult trauma exposure and family environment. Despite these limitations, it is worth noting that the current results agree with the findings of other studies on the subject. It is hoped that this documentation of the adverse intergenerational correlates of a distressingly widespread phenomenon in Greenland will help to bring greater focus on the need for appropriate childcare and counseling services for the affected families.

Our future research will focus on the variables that could mediate the relationship between the mothers' sexual abuse during childhood and their children's development with a view to identifying areas for policy intervention. These variables include the mother's psychopathology (e.g., emotional symptoms, anxiety, depression) and those measuring her attachment and parenting practices and the family environment.

#### Conflict of interest

The authors report no financial or personal relationships with other people or organizations that could potentially influence the results or interpretation of the work being submitted for consideration.

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