M.Sc. in Clinical Psychology

Stress in Relation to Social Support of Mothers of Sexually Abused Children

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Foreword

This research paper is the conclusion of a 17-month-long process which I started working on at the beginning of my second semester, January 2016, studying to obtain my Master of Science (M.Sc.) degree in Clinical Psychology at the University of Reykjavik. The thesis was formulated and initiated that very same spring, and, in May 2017, I submitted my literature review. This research paper is a part of a larger study, and it had already been granted appropriate permission from The National Bioethics Committee, permission number VSN-16-106. The study was conducted with permission and in cooperation with the Icelandic Government Agency for Child Protection. RANNIS—The Icelandic Centre for Research, granted funding for the study. Data were collected on a sample of 48 female, non-offending parents or legal guardians of children who were undergoing therapy for child sexual abuse at Barnahús, or at the Children´s House, in Reykjavik, Iceland, between the months of January 2014 to March 2015, and from August 2016 to January 2017. I wrote the method section of the paper during my third semester, while data were being collected, and then submitted it in December 2017. Data analysis and write-up were completed at the end of semester four, in May 2017. This study explores whether there is a correlation between social support and stress, and what possible factors might affect stress levels of female caregivers of children who have been sexually abused. The Icelandic version of the 10-item Perceived Stress Scale (PSS-10), and the Sources of Social Support survey, with the addition of a few background variables, were the basis of the study.

The theoretical background for the study was based on social support theories, as well as on a definition of stress. Stress was defined by Lazarus and Folkman (1984) as a relationship between the individual and their environment that is appraised as personally significant and as wearing or transcending resources for coping. Based on these theories and a review of the literature, we would expect that, in order to be able to guide and support a child

that has been sexually abused, parents would likely benefit, and thus their children, from a support system of their own to deal with the trauma and the stress from such an event; hence, this is the aim of the study.

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Abstract

This study explores whether there is a relationship between perceived social support and perceived stress, and possible factors that affect stress levels of 48 female caregivers of children undergoing therapy for child sexual abuse at the Children´s House, in Reykjavik. Parents completed questionnaires that contained the 10-item Perceived Stress Scale (PSS-10), the Sources of Social Support survey, with the addition of a few background variables. The results showed that 12.5% were under mild or no stress, 29.2% were under moderate stress, and 58.3% were under severe stress. The mean PSS-10 score was 22.06 (*SD* = 7.3). Perceived social support from relatives and friends, had a weak-to-moderate positive correlation with stress scores when the abuse was intrafamilial, rather than extrafamilial. Stress levels did not differ by marital status (single or not single), severity levels of abuse, duration of abuse, or the child´s relationship with the perpetrator. Sixty four percent reported that they would most prefer therapy as additional support. These results suggest that when the mothers are highly stressed, they seek, and/or get, more support from relatives and friends, especially when it comes to intrafamilial sexual abuse.

Keywords: Social support, stress, intrafamilial sexual abuse, extrafamilial sexual abuse, child sexual abuse

Stress in Relation to Social Support of Mothers of Sexually Abused Children

Lazarus and Folkman (1984) described stress as a relationship between the individual and their environment, accessed as personally significant and as wearing or transcending their resources for coping. Stressful life events have been shown to be causal for the onset of depression (see Hammen 2005, Kendler et al., 1999) and often a predecessor for anxiety (Faravelli & Pallanti 1989, Finlay-Jones & Brown 1981). One type of stressful life event is finding out that one´s child has been a victim of sexual abuse. It can have a traumatic effect on the caregiver, for instance, because of the transmission of stress as parents watch or learn about the pain their children go through (Manion et al., 1996). Low levels of social support have repeatedly been associated with higher stress levels (Resick, 2001), while increased social support enhances personal resilience to stress (Southwick, Vythilingam, & Charney, 2005). Therefore, one would expect that, to be able to guide and support a child that has been sexually abused, the parent would benefit, and thus the child, from a support system of their own to deal with the stress from such an event. Child sexual abuse (CSA) is a serious global problem and its prevalence of a frightening scale. Eight to 31% of girls, and three to 17 % of boys have been victims of sexual abuse before the age of eighteen (Barth, Bermetz, Heim, Trelle, & Tonia, 2013). Prevalence in Iceland is similar. Roughly 1 in 5 girls and 1 in 10 boys have been victims of CSA before the age of eighteen, or 17% of Icelandic children (Ólafsdóttir, 2011).

The consequences of CSA have been widely researched and results suggest that they can have a mediating effect in the development of many psychological problems for the survivor, including posttraumatic stress, revictimization, dissociation, borderline personality disorder, self-esteem, and self-concept impairment (Maniglio, 2009). Some factors within the child´s mind or self, as well as in the environment of the child, can affect the adjustment and psychological functioning post-trauma (Zielinski & Bradshaw, 2006; Klika & Herrenkohl,

2013). Factors that make survivors of CSA more vulnerable to negative treatment outcomes are, for instance, family conflict, negative parental responses, and lack of support (McClure, Chavez, Agars, Peacock, & Matosian, 2008). Protective factors are, for example the child´s coping skills, how they interpret the experience, their self-esteem, good family relationships, friendships, community support and parent emotional reactions (Marriott, Hamilton-Giachritsis, & Harrop, 2014; Cohen & Mannarino, 1998). Another protective factor is parental support. Asgeirsdottir, Gudjonsson, Sigurdsson and Sigfusdottir (2010) found that parental support negatively predicted depressed mood and anger. The results of Godbout, Briere, Sabourin, and Lussier (2014) suggest that parental support serves as a buffering factor for CSA victims, indicating that parental support is an important predictor of these emotional problems.

Parental support is affected by several factors, including stressors faced by the caregiver, and sources of social support (Bolen & Lamb, 2002; Cyr, McDuff, & Hébert, 2013). If we look to social support theories (Bronfenbrenner, 1986; Cutrona & Russel 1990; Hobfoll, Freedy, Green, & Solomon, 1996), we would expect parents who get social support from family, friends, professionals, and others in the community to deal with the situation more effectively, being less stressed, and therefore provide their children with greater support. Incidentally, Cyr et al. (2013) concluded that social support, in the form of support from friends and family after the child's disclosure, to cite an example, is likely a linchpin in helping parents cope. Cohen and Mannarino (1998) found that support given to the mother was a better predictor than parental emotional distress of a more positive treatment outcome of the child as time passed (6- and 12-month follow-up points).

Few studies have examined factors related to stress in mothers of children who have been sexually abused (Plummer, 2006). When the perpetrator is someone from the child´s family, it is often referred to as intrafamilial CSA. When the perpetrator is from outside the

family, it is referred to as extrafamilial CSA. Hébert, Daigneault, Collin-Vésina and Cyr (2007) found that mothers of child victims of intrafamilial sexual abuse were more likely to report clinical levels of distress than when the abuse was extrafamilial. In contrast, Tavkar (2010) found that parents of children who had been sexually abused by a nonfamily member tended to have significantly higher scores stress scores. When it comes to other characteristics of CSA, like severity and duration of abuse, some researchers have argued that they does not have an effect on the mother´s level of distress; however, empirical results have not been in agreement. Manion et al. (1996, 1998) concluded that abuse-related variables, for example severity of abuse and relationship with the perpetrator, did not predict maternal emotional functioning. Hébert et al. (2007) found that duration of abuse was not a predictor of clinical levels of distress in mothers of sexually abused children, and recently, Cyr et al. (2016), found no significant correlation between parental health and intra- versus extrafamilial abuse, severity of abuse or duration of abuse. In contrast, severity of the abuse was found to be associated with the mother´s level of distress by Newberger et al. (1993). Finally, Chin, Murphy, Janicki-Deverts and Cohen (2017) tested whether marital status had an effect on stress in a large sample of healthy adults. Those who were married had lower cortisol levels than those who were not married. This may not be a surprising result, for past research have repeatedly suggested the health benefits of marriage, in particular a happy marriage (e.g., Robles, Slatcher, Trombello, & McGinn, 2014). Based on previous literature, it is important for the wellbeing of the child that we look closely at the needs of the caregivers themselves. For the caregiver to be able to support the child, it is vital to assess their stress level and then aiming appropriate recourses to those who need them the most, is vital. To do this, we must try to find which caregivers are the most stressed, and in need of additional support because of it, as well as what kind of support they need and want. Van Toledo and Seymour (2016) asked caregivers of children who had suffered CSA, who they went to for support. Fifty percent

reported that they got support from friends, 41.7% from family or spouses, 23.2% from counselors or psychologists, 20% from parents, 10% from the doctor, 6.7% from the church, 6.7% from a nongovernmental organization, 1.7% from social workers and 1.7% from school. Roughly 18% of the caregivers said that they received no support (van Toledo & Seymour, 2016). This tells us that there is a large group of caregivers in need of support.

The Perceived Stress Scale (PSS-10), developed by Cohen, Kamarck and Mermelstein (1983), is the most widely-used tool for measuring the perception of stress. The PSS-10 has shown satisfactory psychometric properties (Remor, 2006; Mitchell, Crane, & Kim, 2008; Reis, Hino, & Rodriguez-Anez, 2010; Wang, et al., 2011; Lee, 2012). Previously it has been translated into Icelandic and used with Icelandic participants (Jensdóttir, 2006), but the psychometric properties of the Icelandic version of the PSS have yet to be examined. The PSS-10 has been used to assess psychological stress for a long time. Cohen and Janicki-Devertset (2012) concluded, after looking at data from three national surveys administered in 1983, 2006, and 2009, that stress is higher among women than men. Looking at caregiver research where PSS-10 is used, one can see, for example in Bobbitt et al. (2016) that caregivers of individuals with fetal alcohol spectrum disorder (FADS) reported high levels of stress, with a mean total stress score of 29.5 (SD = 7.3).

The PSS-10 is a validated measure of psychological stress, which is why it was chosen for the current study. No research that used PSS-10 for measurement was found on stress levels of caregivers of sexually abused children. However, caregiver stress levels of sexually abused children have been studied somewhat, using other measurement instruments. Results of those studies have shown, for example, that caregivers have described an increase in stress due to a lack of support from some professionals, by way of being accused of promoting false allegations, being criticized for their parenting, perceiving lack of sensitivity about their worries, and being denied access to social services (Davies & Seymour, 1999a; Henry, 1997;

Hill, 2001; and Plummer & Eastin, 2007). Although no research that used PSS-10 for measurement was found on stress levels of caregivers of sexually abused children, the current study gives the opportunity to compare results to stress levels of caregivers of individuals with FADS, among other possible interpretations.

The aim of the present study is to measure the caregivers´ stress levels, to explore whether factors such as marital status of mothers of sexually abused children, characteristics of the abuse, and perceived social support are associated with perceived stress of the mothers. Also, the aim is to understand what type of support these mothers report they are most in need of. By understanding which group of mothers are in most need of support, it will be possible to better direct resources to them. If we find that there is a need for additional support for this group, it will be possible to influence both psychological wellbeing of the mothers, as well as that of the children. In fact, Forbes, Duffy, Mok, & Lemvig, (2003) found that therapeutic services for the nonoffending parents, with or without treatment for the child, had an effect on both the parent and the child. After treatment, parents had fewer psychological symptoms and emotional reactions, and the children had fewer sexual behavior difficulties. Based on the literature the following hypotheses were composed.

Hypothesis 1: High perceived social support from partners, friends and relatives predicts lower perceived stress of nonoffending mothers of sexually abused children.

Hypothesis 2: Intrafamilial CSA is predictive of higher perceived stress than extrafamilial CSA of nonoffending mothers of sexually abused children.

Hypothesis 3: Higher abuse severity level is predictive of higher perceived stress of nonoffending mothers of sexually abused children.

Hypothesis 4: Higher abuse duration is predictive of higher perceived stress of nonoffending mothers of sexually abused children.

Hypothesis 5: Being a single (nonoffending) mother of sexually abused child predicts higher perceived stress for the mother than being in a relationship/married.

Hypothesis 6: Mothers of sexually abused children would prefer therapy, as additional support, over emotional support, financial support and information and assistance with daily tasks.

In addition to these hypotheses, we seek to understand whether there is any correlation between perceived social support and perceived stress of mothers of sexually abused children if the group is divided into intrafamilial CSA, and extrafamilial CSA.

Method

Sample and Participant Selection

Participants were a sample of 48 female, nonoffending parents or legal guardians (hereafter referred to as 'mothers') of children who were undergoing therapy for child sexual abuse at the Children´s House, in Reykjavik, Iceland between the months of January 2014 to March 2015 and from August 2016 to January 2017. Four males were also in the sample data, however; because they were so few of them, and research have shown that women are generally more stressed than men (Cohen & Williamson, 1988), it was decided to exclude their answers from the data to prevent possible bias. The average age of the mothers was 40.54 years (*SD* = 6.6), with individual ages ranging from 23-52 years.

The Children's House is a multiagency center where professionals work in the investigation and treatment of child sexual abuse cases (Government Agency for Child Protection, n.d). It serves the entire country, and is the only center for child sexual abuse in Iceland. To meet the criteria for the study, the child had to be (a) six to eighteen years of age, (b) sexually abused, and (c) accompanied by a nonoffending mother or father or by a guardian of the child, as long as the guardian had maintained custody of the child for the previous six months or had an ongoing familial relationship with the child. There is no one clear definition

of CSA that is used globally, and some are more precise than others. The definition of CSA used in the current study was the same as at the Children's House, where the study was conducted. It is a 5-level rating system where level 1 is the least severe and 5 is the most severe. Further details for each level are described below.

Procedure

The therapist assigned to each case at the Children´s House screened potential participants and determined whether they met the criteria for the study. A questionnaire packet was provided to the mother to complete in the waiting room while the child was in the first therapy session. In addition to the questionnaires the, therapist completed a background variables sheet.

The National Bioethics Committee granted permission for the study, permission number VSN-16-106. The study received funding from RANNIS—The Icelandic Centre for Research. The study was conducted with permission from, and in collaboration with, the Icelandic Government Agency for Child Protection.

Measures

The Perceived Stress Scale-10 (PSS-10). The PSS-10 was used to measure parental stress. The scale was developed by Cohen, Kamarck and Mermelstein (1983) as a 14-item questionnaire, with seven being positively worded and seven being negatively worded. Later, it was split up into one 10-item questionnaire (six negatively worded and four positively worded questions) and one 4-item questionnaire (two negatively worded and two positively worded questions) (Cohen & Williamson, 1988). The scale measures the global perceived stress one has experienced across the past 30 days, on a Likert scale format, ranging from 0 to 4, (*never, seldom, sometimes, fairly often, very often*). Some sample items include "In the last month, how often have you felt nervous and stressed"; and, "In the last month, how often have you been able to control irritations in your life?" Of the ten items, six are negatively

worded (i.e., “How often have felt that you were unable to control the important things in your life?”), and are scored in a nonreversed direction. The remaining four items are positively worded (i.e., “How often have you felt that things were going your way?”), and are scored in a reversed direction. Total scores were obtained by summing across all ten items after reversing the scores on the four positive items; number 4, 5, 7 and 8. Total scores range from 0 to 40, and higher scores indicate greater overall stress. Normative data for the PSS-10 can be found from a large probability sample of the United States ($N = 2.355$), where the mean score for women ($n = 1.406$) was 13.7 ($SD = 6.6$) (Cohen & Williamson, 1988). The scale has demonstrated acceptable psychometric properties (see Remor, 2006, for a review). Exploratory factor analysis (EFA) of the PSS-10 was performed using a principal axis method with varimax rotation. Prior to the EFA a Kaiser-Meyer-Olkin (KMO) sample adequacy measure was performed along with Bartlett´s Test of Sphericity (Field, 2013). Factors with eigenvalues higher than 1.0 and items loadings with an absolute value greater than .4 were accepted (Stevens, 2009). Cronbach´s alpha was used to test the internal consistency (Field, 2013). Bartlett´s Test of Sphericity was 272.586 ($p < 0.0001$), and Kaiser-Meyer-Olkin (KMO) sample adequacy measure was 0.82, thus, both supported the use of the data in a factor analysis. Cronbach´s alpha of the scale overall was good ($\alpha = .892$). Principal axis analysis revealed two factors that had eigenvalues over Keiser´s criterion of 1, explaining in combination 67.96% of the variance. A Scree plot revealed a break after the second factor. Varimax rotation was performed and the rotated two factors explained, in combination, 61.44% of the variance. All the six positively worded items loaded highly on the first factor and explained 39.44% of the variance, while the four negatively worded items loaded on the second factor and explained 21.99% of the variance. In accordance with both how the PSS-10 scores are usually summed up in clinical settings, and what its authors recommend, the total

score used in the current study consists of the score of all the ten items into one number rather than two separate outcomes (Cohen & Williamson, 1988).

Sources of Social Support survey. This measure was designed by the research team and was used to measure perceived social support. It asks how often, using a Likert scale ranging from 0 to 4 (*never, seldom, sometimes, fairly often,* and *very often*), the mother received support, followed by a list of 17 people/organizations, including for example, partner, relatives, friends, acquaintance, The Children´s House personnel, other professionals, and the perpetrator. Of the 17 items, answers to only three were used for the current study: Partner, Relatives, and Friends.

Additional questions. Additional questions, designed by the research team, were in the packet of questionnaires that the mothers received. They were asked what type of support they felt that they still needed in order to better support their child. Four options were listed (*therapy, financial support, information and assistance with daily tasks,* and *emotional support*) and the mothers were instructed to prioritize them, from 1 to 4 (1 being the most important, 4 being the least important).

Child´s relationship with the perpetrator. If the perpetrator was the father, mother, stepfather, stepmother, or other close relative of the child, the abuse was considered intrafamilial. If the perpetrator was familiar with the child, a stranger, or his identity unknown, the abuse was considered extrafamilial. Intrafamilial CSA was coded 0 and extrafamilial was coded 1.

Severity of abuse. The Children´s House categorizes the severity of abuse into five levels, where 1 is the least severe and 5 is the most severe.

> (1) Adult's apparent sexual interest in the child, the touching of the child's body parts over clothing excluding sexual parts. (2) Masturbation in the presence of a child, touching of the child's sexual parts outside of the clothing. (3) Touching of

sexual parts inside of clothing, child masturbated or forced to masturbate the abuser. (4) Attempts at penetration with finger, penis or object, or oral sex performed. (5) Full sexual intercourse with vagina or anus penetrated (Gudjonsson, Sveinsdottir, Sigurdsson, & Jonsdottir, 2009, p. 576).

The severity variable was recoded so that the 5 levels fell in two groups, with severity levels 1-3 coded 0, and levels 4-5 coded 1.

Duration of abuse. This variable, before recoding, was in 7 categories, 0-2 weeks, 3-4 weeks, 1-3 months, 4-6 months, 7-12 months, 1-2 years, and more than 2 years. The first category, 0-2 weeks was coded 0, and the other six categories were coded 1.

Marital status. When a mother was single, divorced or widowed, it was coded 0, representing *Single*, and married was coded 1, representing *Not single*.

Statistical Analyses

Data analysis was performed using IBM SPSS Statistics software version 24 (SPSS Inc., IL, US). The relationship between marital status, intrafamilial versus extrafamilial CSA, duration of abuse, severity of abuse, and PSS-10 scores was measured using independent samples *t*-tests. The relationship between perceived social support and perceived stress was tested using bivariate Pearson´s correlation, and two analyses were calculated; one where the split-file method was used for intrafamilial versus extrafamilial CSA, and the other without split-file method. The relationship between perceived social support and perceived stress was tested using bivariate Pearson´s correlation. Descriptive statistics were used to understand what type of support the mothers felt that they still needed in order to better support their child.

Results

The response to the PSS-10 (dependent variable) produced the following outcomes: Six mothers (12.5%) were under mild or no stress with scores ranging between 3-13, 14

(29.2%) were under moderate stress with scores ranging between 14-20, and 28 (58.3%) were under severe stress with scores ranging from 21-37. The mean PSS-10 score was 22.06 (*SD* = 7.3), ranging between 3-37. Reliability coefficients, using Cronbach´s alpha, was .892. Table 1 presents means for the PSS-10 score and three questions (independent variables) from the Sources of Social Support survey. The mean scores of the Social support variables all showed a level of moderate support (means ranging from 1.94 to 2.34, on a scale of 0-4) from partner, relatives, and friends.

Table 1

Means for Perceived Stress Scale (PSS-10) Scores and Three Questions from the Sources of Social Support Survey

Group	*M*	*SD*	Range	*n*
PSS-10	22.06	7.30	3-37	48
Social support – partner	2.34	1.70	0-4	44
Social support – relatives	1.94	1.41	0-4	47
Social support – friends	1.96	1.46	0-4	47

Table 2 presents descriptive statistics for the four independent categorical variables. The sexual abuse occurred somewhat equally intrafamilially (45.8%), and extrafamilially (54.2%). Majority of abuse severity were level 4 and 5 (71.7%,). Abuse duration of 0-2 week was 56.5%. Of the 48 mothers, 36.7% were single.

Table 2

Descriptive Statistics for Independent Categorical Variables

Group	*n*	%
Intra vs. Extra CSA		
Intrafamilial	22	45.8
Extrafamilial	26	54.2
Marital status		
Single	18	36.7
Not single	31	63.3
Abuse severity		
Levels 1-3	13	28.3
Levels 4-5	33	71.7
Abuse duration		
0-2 weeks	26	56.5
Over 2 weeks	20	43.5

Hypothesis 1. As shown in Table 3, perceived social support from relatives had a weak positive correlation with PSS-10 scores ($r = .259$, $p < .05$), which means that greater support from relatives was correlated with higher stress levels. Perceived social support from partner and friends was not significantly correlated with PSS-10 scores. However, there was a strong positive correlation between perceived social support from relatives and perceived social support from friends ($r = .603$, $p < .01$), which means greater support from relatives was correlated with greater support from friends.

Table 3

Bivariate Pearson´s Correlations Between the Perceived Stress Scale Scores and Three Questions from the Sources of Social Support Survey

	PSS-10	Partner	Relatives	Friends
PSS-10	–	-.063	.259*	.164
Partner		–	.203	.151
Relatives			–	.603**
Friends				–

Note. * = $p < .05$, one-tailed. ** = $p < .01$, one-tailed.

Hypotheses 2, 3, 4, and 5. To test if mean levels of perceived stress differed depending on the child´s relationship to the perpetrator (intrafamilial CSA versus extrafamilial CSA), marital status of the mother, severity of abuse, or duration of abuse, independent *t*-tests were performed on those variables, using perceived stress as the dependent variable. Results, which are presented in Table 4, showed no significant difference on any of them.

Table 4

T-tests Results on Differences Between PSS-10 Mean Scores and Group Variables

Group	*M*	*SD*	*N*	*df*	*T*
Intra vs. Extra CSA					
Intrafamilial	22.32	6.07	22	45	*ns*
Extrafamilial	21.88	8.48	25	45	-
Marital status					
Single	21.35	8.35	17	46	*ns*
Not single	22.45	6.77	31	46	-
Abuse severity					
Levels 1-3	20.69	7.84	13	43	*ns*
Levels 4-5	22.41	7.16	32	43	-
Abuse duration					
0-2 weeks	22.62	7.08	26	43	*ns*
Over 2 weeks	21.79	8.13	19	43	-

Hypothesis 6. When asked to rank from 1-4 (1 being the most important, 4 being the least important) what type of support the mothers felt they still needed in order to better support their child, out of four options listed, 64.3% chose therapy, 26.2% chose emotional support, 7.1% chose information and assistance with daily tasks, and 2.4% chose financial support. Therefore, it seems that the most support needed for this group, from their own perspective, is therapy.

Lastly, a bivariate Pearson´s correlation test was performed to explore whether there is a relationship between perceived social support and perceived stress of mothers of sexually abuse children if the group is divided into intrafamilial CSA, and extrafamilial CSA. As shown in Table 5, perceived social support from relatives and friends had a weak-to-moderate positive correlation with PSS-10 scores (relatives, $r = .377$, $p < .05$, friends, $r = .431$, $p < .05$), but only when the abuse was intrafamilial, not extrafamilial. This means that, when the abuse was intrafamilial, greater social support from relatives and friends was associated with greater stress. Stress was not associated with social support when the abuse was extrafamilial. However, in both intrafamilial and extrafamilial CSA there was a moderate-to-strong positive correlation between perceived social support from relatives and perceived social support from friends (extrafamilial, $r = .584$, $p < .01$, intrafamilial, $r = .611$, $p < .01$), which implies that greater support from relatives was correlated with greater support from friends in both cases. To summarize, there was relationship between the mothers' perceived social support of relatives and friends in cases of intrafamilial CSA, not extrafamilial CSA, and there was a moderate to strong positive correlation between perceived social support from relatives and perceived social support from friends in both extra- and intrafamilial CSA.

Table 5

Bivariate Pearson´s Correlations Between the Perceived Stress Scale Scores and three Questions from the Sources of Social Support Survey, in Relation to Intrafamilial versus Extrafamilial CSA

	PSS-10	Partner	Relatives	Friends
Intrafamilial				
PSS-10	–	-.179	.377*	.431*
Partner		–	.096	.106
Relatives			–	.611**
Friends				–

	PSS-10	Partner	Relatives	Friends
Extrafamilial				
PSS-10	–	.026	.199	.025
Partner		–	.320	.174
Relatives			–	.584**
Friends				–

Note. * = $p < .05$, one-tailed. ** = $p < .01$, one-tailed.

Discussion

The aim of this study was to explore whether factors such as marital status of the mothers of sexually abused children, characteristics of the abuse, and perceived social support are associated with perceived stress of the mothers. It is clear that this group, mothers of sexually abused children, experience a lot of stress, as the mean of the PSS-10 scores (M = 22.06) in this study is in the *severe* stress category (scores ranging from 21-37). This mean score is much higher than, for instance, the mean score for women from a large probability sample of the United States (women, n = 1.406), which was 13.7 (Cohen & Williamson, 1988). Another research to look to is Bobbitt et al. (2016) where caregivers of individuals

with FADS had a mean total PSS-10 stress score in the *severe* stress category ($M = 29.5$). Unfortunately, there was no confidence interval used in said studies, so it is not a fair comparison. Also, the time point of data collection in the current study is during a time that is likely very stressful.

Hypothesis 1, predicting that high perceived social support from partners, friends and relatives predicts *lower* perceived stress of nonoffending mothers of sexually abused children, was not supported in the present study. An interesting finding was that it was actually the other way around. Analysis revealed that high perceived social support from friends predicted *higher* perceived stress for nonoffending mothers of sexually abused children. This is in stark contradiction to other studies on this matter (Bolen & Lamb, 2002; Cyr, McDuff, & Hébert, 2013), as well as from what we might expect when having social support theories in mind (Bronfenbrenner, 1986; Cutrona & Russel 1990; Hobfoll, et al., 1996). A possible explanation could be that people who are highly stressed actively seek out support, more than those who are less stressed, or that the people closest to them see that they are very stressed, and therefore provide greater support. In fact, with these results in mind, along with the fact that participants are all women, it supports Thoits' (1995) results that revealed that women, more often than men, seek out social support to deal with stress.

In hypotheses 2, 3, 4, and 5, it was stated that intrafamilial CSA (versus extrafamilial CSA), higher abuse severity level, higher abuse duration, and a being single (versus not single), nonoffending mother of sexually abused child, would all be predictive of higher perceived stress. However, statistical analysis revealed no difference between being single or not single, severity levels, different length of abuse, or intrafamilial and extrafamilial abuse, regarding perceived stress of the mothers. Although this means that hypotheses 2, 3, 4, and 5 of the present study were not supported, these results do support previous research regarding severity, duration of the abuse, as well as the child´s relationship with the perpetrator prior to

the abuse, having no relation to distress or emotional functioning of mothers of sexually abused children (Manion et al., 1996, 1998; Hébert et al., 2007). Also, it is supports results of Cyr et al. (2016) that found no significant correlation between parental health and severity of abuse, duration of abuse, or intra- versus extrafamilial abuse.

Hypothesis 6, which predicted that mothers of sexually abused children would prefer therapy, as additional support, over emotional support, financial support and information and assistance with daily tasks, was supported. Sixty four percent of the mothers reported that they would prefer therapy over the other three options. This is of importance, for it tells us that there is a need for additional support for a large part of mothers of sexually abused children. Forbes et al. (2003) strengthen this point in their study, as their results revealed that therapeutic services for the parent affect both the parent and the child in a positive way. Therefore, by seeing to the needs of the nonoffending parent, we can help not only the parent, but also see to the wellbeing of the child indirectly, through the same intervention.

In addition to these hypotheses, a correlation test was performed to explore whether there is a relationship between perceived social support and perceived stress of mothers of sexually abused children if the group is divided into intrafamilial CSA, and extrafamilial CSA. There was a weak-to-moderate positive correlation between social support from relatives and friends, but only when the abuse was intrafamilial, not extrafamilial. To simplify this finding, it means that when the abuse was intrafamilial the mothers reported high levels of stress and high levels of support from friends and relatives. This suggests that when the mothers are highly stressed they themselves seek, and/or get, more support from others, especially relatives and friends, at least when it comes to intrafamilial CSA. Again, this supports Thoits' (1995) results that revealed that women, more often than men, seek out social support to deal with stress.

Strength and limitations.

The results of this study should be interpreted with the limitations inherent to the small sample size. It would have been preferable to have a bigger sample size, as well as a comparison croup of, for instance, mothers of children who have not been sexually abused, or mothers of children who are facing a different kind of trauma. Moreover, since our sample consisted only of mothers of sexually abused children, the results should not be generalized to fathers of sexually abused children.

Nonetheless, the current study reveals a need for additional support for mothers of sexually abused children, particularly in form of therapy, to aid not only the psychological wellbeing of the mothers, but of the child as well.

Future research

The next step could be to collect data, using the PSS-10, from a comparison group in Iceland, to be able to compare the results of the current study with groups of caregivers of children with a different type of trauma, or no trauma at all. The PSS-10 is being used in a study of perceived stress in police officers in Iceland and it would be interesting to compare those result to the results of the current study, to see if there is any difference in stress levels of mothers of sexually abused children and police officers who work in a highly stressful environment. It would also be of importance to have a larger sample size than in the present study, as well as explore the relationship between perceived stress and perceived social support reported by the mothers, and how their children, who have been sexually abuse, perceive the support they receive from the mothers themselves.

Conclusions.

A large part of the nonoffending mothers of children undergoing therapy for CSA at the Children´s House experience high stress levels, and high social support from friends is predictive of higher stress levels for the mothers. There is no difference between being single

or not, severity levels, different length of abuse, or intrafamilial and extrafamilial abuse, regarding perceived stress of the mothers. The mothers prefer therapy over emotional support, financial support, and information and assistance with daily tasks, and clearly there is a need for additional support for them. Finally, when the CSA is intrafamilial the mothers report high levels of stress and high levels of support from friends and relatives. This tells us that we should pay special attention to this particular group, nonoffending mothers of children who have been sexually abused by a perpetrator known to the child, and preferably support these mothers by providing an opportunity to seek therapy.

References

Asgeirsdottir, B. B., Gudjonsson, G. H., Sigurdsson, J. F., & Sigfusdottir, I. D. (2010). Protective processes for depressed mood and anger among sexually abused adolescents: The importance of self-esteem. *Personality and Individual Differences, 49*(5), 402–407. http://dx.doi.org/10.1016/j.paid.2010.04.007

Barth, J., Bermetz, L., Heim, E., Trelle, S., & Tonia, T. (2013). The current prevalence of child sexual abuse worldwide: A systematic review and meta-analysis. *International Journal of Public Health, 58*(3), 469–483. http://dx.doi.org/10.1007/s00038-012-0426-1

Bobbitt, S. A., Baugh, L. A., Andrew, G. H., Cook, J. L., Green, C. R., Pei, J. R., & Rasmussen, C. R. (2016). Caregiver needs and stress in caring for individuals with fetal alcohol spectrum disorder. *Research in Developmental Disabilities, 55*, 100–113. http://dx.doi.org/10.1016/j.ridd.2016.03.002

Bolen, R. M., & Lamb, J. L. (2002). Guardian support of sexually abused children: A study of its predictors. *Child Maltreatment, 7*(3), 265–276. http://dx.doi.org/10.1177/1077559502007003008

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723–742. http://dx.doi.org/10.1037/0012-1649.22.6.723

Chin, B., Murphy, M. L. M., Janicki-Deverts, D., & Cohen, S. (2017). Marital status as a predictor of diurnal salivary cortisol levels and slopes in a community sample of healthy adults. *Psychoneuroendocrinology, 78*, 68–75, https://dx.doi.org/10.1016/j.psyneuen.2017.01.016.

Cohen, J. A., & Mannarino, A. P. (1998). Factors that mediate treatment outcome of sexually abused preschool children: Six- and 12-month follow-up. *Journal of the American*

Academy of Child & Adolescent Psychiatry, 37(1), 44–51. http://dx.doi.org/10.1097/00004583-199801000-00016

Cohen, S., & G. Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan, S. Oskamp (Eds.), *The Social Psychology of Health* (pp. 31–67). CA: Sage, Newbury Park. Retrieved from http://www.psy.cmu.edu/~scohen/Cohen%2C%20S.%20%26%20Williamson%2C%20G.%20(1988).pdf

Cohen, S., & Janicki-Deverts, D. (2012). Who's stressed? Distributions of psychological stress in the United States in probability samples from 1983, 2006 and 2009. *Journal of Applied Social Psychology, 42*(6), 1320–1334. http://dx.doi.org/10.1111/j.1559-1816.2012.00900.x

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 386–398. http://dx.doi.org/10.2307/2136404

Cutrona, C. E., & Russel, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 319–366). New York, NY: Wiley. Retrieved from https://www.researchgate.net/publication/232560583_Type_of_social_support_and_specific_stress_Toward_a_theory_of_optimal_matching

Cyr, M., Frappier, J. Y., Hébert, M., Tourigny, M., McDuff, P., & Turcotte, M. È. (2016). Psychological and physical health of nonoffending parents after disclosure of sexual abuse of their child. *Journal of Child Sexual Abuse, 25*(7), 757–776. http://dx.doi.org/10.1080/10538712.2016.1228726

Cyr, M., McDuff, P., & Hébert, M. (2013). Support and profiles of nonoffending mothers of sexually abused children. *Journal of Child Sexual Abuse, 22*(2), 209–230. http://dx.doi.org/10.1080/10538712.2013.737444

Davies, E., & Seymour, F. (1999). Sexual abuse investigations: What children and their carers really think. *Social Work Now: the Practice Journal of Child, Youth and Family, 12* (pp. 20–25). Retrieved from http://www.cyf.govt.nz/documents/about-us/publications/social-work-now/social-work-now-12-april99.pdf

Faravelli, C., & Pallanti, S. (1989). Recent life events and panic disorder. *The American Journal of Psychiatry, 146*(5), 622–626. http://dx.doi.org/10.1176/ajp.146.5.622

Field, A. P. (2013). *Discovering statistics using IBM SPSS Statistics: And sex and drugs and rock 'n' roll* (4th ed.). London, UK: Sage.

Finlay-Jones, R., & Brown, G. W. (1981). Types of stressful life event and the onset of anxiety and depressive disorders. *Psychological Medicine, 11*(4), 803–815. http://dx.doi.org/10.1017/S0033291700041301

Forbes, F., Duffy, J. C., Mok, J., & Lemvig, J. (2003). Early intervention services for nonabusing parents of victims of child sexual abuse. *British Journal of Psychiatry, 183*(1), 66–72. http://dx.doi.org/10.1192/bjp.183.1.66

Godbout, N., Briere, J., Sabourin, S., & Lussier, Y. (2014). Child sexual abuse and subsequent relational and personal functioning: The role of parental support. *Child Abuse & Neglect, 38*(2), 317–325. http://dx.doi.org/10.1016/j.chiabu.2013.10.001

Government Agency for Child Protection (n.d). *The Children's House in Iceland – "Barnahus"* [Fact sheet]. Retrieved from http://www.bvs.is/media/forsida/Barnahus,-an-overview.pdf

Gudjonsson, G., Sveinsdottir, T., Sigurdsson, J. F., & Jonsdottir J. (2010). The ability of suspected victims of childhood sexual abuse (CSA) to give evidence. Findings from

the Children's House in Iceland. *The Journal of Forensic Psychiatry & Psychology*, *21*(4), 569–586. http://dx.doi.org/10.1080/14789940903540784

Hammen, C. (2005). Stress and depression. *Annual Review of Clinical Psychology, 1*, 293–319. http://dx.doi.org/10.1146/annurev.clinpsy.1.102803.143938.

Hébert, M., Daigneaut, I, Collin-Vezina, D., & Cyr, M. (2007). Factors linked to distress in mothers of children disclosing sexual abuse. *Journal of Nervous Mental Disease, 195*(10), 805-811. http://dx.doi.org/10.1097/NMD.0b013e3181568149

Henry, J. (1997). System intervention trauma to child sexual abuse victims following disclosure. *Journal of Interpersonal Violence, 12*(4), 499–513. http://dx.doi.org/10.1177/088626097012004002

Hill, A. (2001). 'No-one else could understand': Women's experiences of a support group run by and for mothers of sexually abused children. *British Journal of Social Work, 31*(3), 385–397. http://dx.doi.org/10.1093/bjsw/31.3.385

Hobfoll, S. E., Freedy, J. R., Green, B. L., & Solomon, S. D. (1996). Coping in reaction to extreme stress: The roles of resource loss and resource availability. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 322–349). Oxford, England: John Wiley & Sons.

Jensdóttir, H. B. (2006). *Upplifun á ofbeldi í starfi: Viðbrögð og forvarnir.* (Unpublished undergraduate dissertation). Akureyri: University of Akureyri.

Kendler, K. S., Neale, M. C., Sullivan, P., Corey, L. A., Gardner, C. O., & Prescott, C. A. (1999). A population-based twin study in women of smoking initiation and nicotine dependence. *Psychological Medicine, 29*(2), 299–308. http://dx.doi.org/10.1017/S0033291798008022

Klika, J. B., & Herrenkohl, T. I. (2013). A review of developmental research on resilience in maltreated children. *Trauma, Violence, & Abuse, 14*(3), 222–234. http://dx.doi.org/10.1177/1524838013487808

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Lee, E. H. (2012). Review of the psychometric evidence of the Perceived Stress scale. *Asian Nursing Research, 6*(4), 121–127. http://dx.doi.org/10.1016/j.anr.2012.08.004

Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical Psychology Review, 29*(7), 647–657. http://dx.doi.org/10.1016/j.cpr.2009.08.003

Manion, I. G., Firestone, P., Cloutier, P., Ligezinska, M., McIntyre, J., & Ensom, R. (1998). Child extrafamilial sexual abuse: Predicting parent and child functioning. *Child Abuse & Neglect, 22*(12), 1285–1304. http://dx.doi.org/10.1016/S0145-2134(98)00103-3

Manion, I. G., McIntyre, J., Firestone, P., Ligezinka, M., Ensom, R., & Wells, G. (1996). Secondary traumatization in parents following the disclosure of extrafamilial child sexual abuse: Initial effects. *Child Abuse and Neglect, 20*(11), 1095–1109. http://dx.doi.org/10.1016/0145-2134(96)00098-1

Marriott, C., Hamilton-Giachritsis, C., & Harrop, C. (2014). Factors promoting resilience following childhood sexual abuse: A structured, narrative review of the literature. *Child Abuse Review, 23*(1), 17–34. http://dx.doi.org/10.1002/car.2258

McClure, F. H., Chavez, D. V., Agars, M. D., Peacock, M. J., & Matosian, A. (2008). Resilience in sexually abused women: Risk and protective factors. *Journal of Family Violence, 23*(2), 81–88. http://dx.doi.org/10.1007/s10896-007-9129-4

Mitchell, A. M., Crane, P. A., & Kim, Y. (2008). Perceived stress in survivors of suicide: Psychometric properties of the Perceived Stress scale. *Research in Nursing and Health, 31*(6), 576–585. http://dx.doi.org/10.1002/nur.20284

Newberger, C. M., Geremy, I. M., Waternaux, C. M., & Newberger, E. H. (1993). Mothers of sexually abused children: Trauma and repair in longitudinal perspective. *American Journal of Orthopsychiatry, 63*(1), 92–102.

Ólafsdóttir, H. (2011). Börn þvinguð til kynlífs – Rannsókn á kynferðislegri misnotkun á börnum. In Svala Í. Ólafsdóttir (Ed.), *Hinn launhelgi glæpur – Kynferðisbrot gegn börnum*, pp. 235–267. Reykjavík: Háskólaútgáfan.

Plummer, C. (2006). Nonabusive mothers of sexually abused children: The role of rumination in maternal outcomes. *Journal of Child Sexual Abuse, 15*(2), 103–122. http://dx.doi.org/10.1300/J070v15n02_07

Plummer, C. A., & Eastin, J. A. (2007). System intervention problems in child sexual abuse investigations: The mother's perspective. *Journal of Interpersonal Violence, 22*(6), 775–787. http://dx.doi.org/10.1177/0886260507300753

Reis, R. S., Hino, A. A. F., & Rodriguez-Anez, C. R. (2010). Perceived Stress scale: Reliability and validity study in Brazil. *Journal of Health Psychology, 15*(1), 107–114. http://dx.doi.org/10.1177/1359105309346343

Remor, E. (2006). Psychometric properties of a European Spanish version of the Perceived Stress scale (PSS). *The Spanish Journal of Psychology, 9*(1), 86–93. http://dx.doi.org/10.1017/S1138741600006004

Resick, P. A. (2001). *Stress and trauma*. Philadelphia, PA: Taylor & Francis Inc.

Robles, T. F., Slatcher, R. B., Trombello, J. M., & McGinn, M. M. (2014). Marital quality and health: A meta-analytic review. *Psychological. Bulletin, 140*(1), 140–187. http://dx.doi.org/10.1037/a0031859

Southwick, S. M., Vythilingam, M., & Charney, D. S (2005). The psychobiology of depression and resilience to stress: Implications for prevention and treatment. *Annual Review of Clinical Psychology; 1*, 255–291. http://dx.doi.org/10.1146/annurev.clinpsy.1.102803.143948

Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). Hillsdale, NJ: Erlbaum.

Tavkar, P. (2010). Psychological and support characteristics of parents of child sexual abuse victims: Relationship with child functioning and treatment. (Doctoral dissertations), *Theses, Dissertations, and Student Research: Department of Psychology*. Paper 17. Retrieved from http://digitalcommons.unl.edu/psychdiss/17

Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior. 35*, 53–79. http://dx.doi.org/doi:10.2307/2626957.

van Toledo, A., & Seymour, F. (2013). Interventions for caregivers of children who disclose sexual abuse: A review. *Clinical Psychology Review, 33*(6), 772–781.

Wang, Z., Chen, J., Boyd, J. E., Zhang, H., Jia, X., Qiu, J., & Xiao, Z. (2011). Psychometric properties of the Chinese version of the Perceived Stress scale in policewomen. *PLOS ONE, 6*(12). http://dx.doi.org/10.1371/journal.pone.0028610

Zielinsky, D. S., & Bradshaw, C. P. (2006). Ecological influences on the sequelae of child maltreatment: A review of the literature. Child Maltreatment, 11(1), 49–62. https://dx.doi.org/10.1177/1077559505283591