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Journal Title: Journal of Child Sexual Abuse
Volume: Volume 25, Number 8
Publisher: Taylor & Francis (Routledge): STM, Behavioural Science and Public Health Titles | 2016-11-16, Pages 813-826
Type of Work: Article | Post-print: After Peer Review
Publisher DOI: 10.1080/10538712.2016.1234532
Permanent URL: https://pid.emory.edu/ark:/25593/rwq1v

Final published version: http://dx.doi.org/10.1080/10538712.2016.1234532

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Accessed August 17, 2019 1:49 AM EDT
Maternal Child Sexual Abuse Is Associated With Lower Maternal Warmth Toward Daughters but Not Sons

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Abstract

Mothers with a history of child sexual abuse report less warmth toward their children, but whether this association differs by child gender is unknown. We examined the association of maternal child sexual abuse and warmth across child gender, accounting for depression, post-traumatic stress disorder, and child physical abuse. We verbally administered self-report measures to a cross-sectional sample of 154 mothers with a child between 8 and 12 years old. Eighty-five mothers based warmth responses on a son, and 69 on a daughter. We conducted a hierarchical multiple regression, including child gender, maternal child sexual abuse, child physical abuse, depression, post-traumatic stress disorder, and 4 two-way interaction terms with child gender. Maternal depression predicted decreased warmth, regardless of child gender, and maternal child sexual abuse predicted decreased warmth, but only toward daughters. Given previous research suggesting that maternal warmth predicts child well-being, the current finding may represent an important avenue of intergenerational transmission of risk in girls.

Keywords

Child sexual abuse; gender; intergenerational risk; maternal depression; parenting

Numerous studies demonstrate a positive relationship between maternal warmth (affection, positive regard, attentiveness) and child well-being. Higher maternal warmth is associated with lower anxiety and better self-regulation in children (Eiden, Colder, Edwards, &
Leonard, 2009; McCabe, Clark, & Barnett, 1999) and may even buffer against the effects of other negative parenting factors, such as maternal overcontrol and maternal depression as well as against long-term physiological and cognitive effects of poverty and low birth weight (Brennan, Le Brocque, & Hammen, 2003; Chen, Miller, K Tobor, & Cole, 2011; Ispa et al., 2004; Tully, Arseneault, Caspi, Moffitt, & Morgan, 2004). Understanding factors that predict maternal warmth may facilitate identification of at-risk families who may benefit from treatments that increase maternal warmth (e.g., Gross et al., 2009).

One factor that may be associated with lower maternal warmth is maternal child sexual abuse. In previous studies, mothers with a history of child sexual abuse reported less warmth toward their children, but effects were weak or based only on one child gender (Barrett, 2009; Cohen, 1995; Miller-Clayton, 2010). Given that parenting behavior, more generally, and warmth, specifically, may differ based on the gender of the child (Leaper, Anderson, & Sanders, 1998; Shanahan, McHale, Crouter, & Osgood, 2007), one might expect that the association of maternal child sexual abuse to maternal warmth would also vary by child gender. Moreover, considering the potential salience of gender to the experience of child sexual abuse, a finding of a difference between warmth toward sons compared to daughters would not be unexpected. For example, because most perpetrators of child sexual abuse against girls are male (Vogeltanz et al., 1999), and because many adult women survivors report a preference to avoid men (Esperat & Esparza, 1997; Wyatt, 1990), one might expect that mothers with a history of child sexual abuse would report less warmth toward sons than toward daughters. This hypothesis may be bolstered by broader research demonstrating overall greater warmth between mothers and daughters than between mothers and sons (Leaper et al., 1998). On the other hand, one study found that mothers with a history of child sexual abuse displayed permissive, peer-like rather than parent-like interactions with sons, and similar peer-like interactions with sons are associated with more hostility and lower intimacy toward daughters (DiLillo & Damashek, 2003; Sroufe, Jacobvitz, Mangelsdorf, De Angelo, & Ward, 1985). This pattern might suggest that mothers with a history of child sexual abuse would report less warmth toward daughters. Nevertheless, whether the association between child sexual abuse and maternal warmth is different depending on whether the mother is describing her relationship with a son versus a daughter has never been directly examined.

Other factors that may be important to consider include maternal depression and post-traumatic stress disorder (PTSD) as well as maternal child physical abuse. Depression and PTSD are well-established sequelae of child sexual abuse (Fergusson, McLeod, & Horwood, 2013; MacMillan et al., 2014) and are both implicated as risk factors for parenting problems (Dekel & Monson, 2010; Lovejoy, Gracyzky, O’Hare, & Neuman, 2000). Maternal depression is associated with less affection and more withdrawal/disengagement from one’s child (Radke-Yarrow, Nottelmann, Belmont, & Welsh, 1993), and maternal PTSD is associated with lower parental satisfaction (Bertz, Taft, Watkins, & Monson, 2008; Gold et al., 2007). An examination of the relationship between maternal child sexual abuse and maternal warmth would be incomplete with consideration of the role of depression and PTSD. Furthermore, because child physical and sexual abuse often co-occur (Dong et al., 2004), it is important to account for child physical abuse when examining child sexual abuse to better understand the potential unique impact of child sexual abuse on maternal warmth.
The primary goals of the current study were to examine (a) whether maternal child sexual abuse is associated with maternal warmth, even accounting for maternal depression, PTSD, and child physical abuse, and (b) whether that association would differ depending on whether mothers were describing their relationships with sons versus daughters. We predicted, based on previous studies, that child sexual abuse would be associated with less maternal warmth overall; however, given that no previous studies examined the role of child gender in this area and other studies offered only limited and conflicting support for a specific hypothesis, we did not have a specific prediction regarding whether that association would differ by child gender or, if it did, what the nature of that difference would be. Thus, our second goal was explicitly exploratory.

Method

Measures

Demographics form—Participant age, self-identified gender, self-identified race, education, and household monthly income were recorded at the time of the assessment. The parent-reported age and gender of the child on whom parental warmth responses were based was also recorded.

Childhood Trauma Questionnaire: The CTQ (Bernstein & Fink, 1998; Bernstein et al., 2003) is a 28-item retrospective self-report measure of frequency of 5 types of childhood trauma, including child sexual abuse and child physical abuse. Our primary analyses are based on continuous scores, though we present categorical abuse data in our description of sample characteristics. Following Bernstein and Fink’s score ranges for none, mild, moderate, and severe levels of abuse, we classified sexual and physical abuse into none/mild range and moderate/severe range (Bernstein & Fink, 1998). The CTQ has demonstrated good reliability and validity in both clinical and community populations (Bernstein et al., 1994, 2003) as well as within the current population (Binder et al., 2008). In our sample, internal consistency for both the sexual abuse scale (.96) and the physical abuse scale (.82) was good.

The Modified PTSD Symptom Scale: The MPSS (Foa & Tolin, 2000; Ressler et al., 2011) is a 17-item self-report measure of current (past 2 weeks) PTSD symptom frequency. The structure and content of the MPSS reflect the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision (DSM-IV-TR; American Psychiatric Association, 2000) criteria for PTSD. MPSS internal consistency for the current study was good (.92).

Beck Depression Inventory-II: The BDI (Beck, Steer, & Brown, 1996) is a 21-item self-report measure of current (past 2 weeks) depression symptom severity. BDI internal consistency for the current study was good (.93).

Parenting Questionnaire: The PQ; McCabe et al., 1999) is a 50-item parent self-report of parenting practices, including warmth. The measure was derived from other existing measures, including the Parenting Dimensions Inventory (Power, 1993) and the Family Environment Scale (Moos & Moos, 1994). The 22-item warmth subscale has demonstrated...
good internal consistency (.90) in a sample of African-American participants (McCabe et al., 1999) as well as within the current study sample (.83).

**Recruitment and procedure**

Participants were adult women who were legal guardians and primary caretakers of at least one child between the age of 8 and 12 years old. Eligibility requirements for all phases of the study included the ability to give informed consent. Exclusion criteria included intellectual developmental disorder or active psychosis. Written and verbal informed consent were obtained for all participants. All procedures in this study were approved by the institutional review boards of Emory University School of Medicine, Grady Hospital System, and Hughes Spalding Children’s Hospital.

Participants were recruited while waiting in primary care, obstetrical/gynecological (OB/GYN), and diabetic care clinics of a large, public hospital and an emergency department waiting area of a pediatric hospital. Participants were approached by a member of the research team and invited to participate in a study examining trauma exposure. Research team members in the emergency department waiting area did not approach individuals whose children were presenting with injury or life-threatening illness.

Those women who agreed to participate completed a battery of self-report measures, including demographics, the CTQ, MPSS, and BDI, which took 45–75 minutes to complete (largely dependent on the extent of trauma history and symptoms). Each participant was paid USD$15 for this initial phase of the study and invited to participate in a joint visit with her child during which she completed measures related to parenting, including the PQ. Participants with multiple eligible children were instructed to bring the youngest eligible child and to base their responses to parenting questions only on that child. Participants were paid USD$80–100 for this joint visit. Due to potential variable literacy between subjects, all self-report measures were obtained by verbal interview at all study phases. Mothers and children were interviewed separately, and the current study includes only data collected from the mothers.

**Sample description**

The current study includes 154 women, 85 of whom based their PQ responses on a son and 69 on a daughter. Most women self-identified as African American (96.75%) and reported at least a high school education (74.03%) and a household monthly income of less than USD $1,000 (52.60%). Most women indicated they were single (59.09%), and the remaining women indicated that they were married or cohabitating (16.23%) or were separated, divorced, or widowed (24.03%). One woman declined to indicate her relationship status. The mean number of individuals in the households was 5.01 (SD = 2.40), including 3.05 (SD = 2.40) children and 1.82 (SD = 3.05) adults. Sixty-two (40.26%) of the women in the study reported experiencing moderate to severe child sexual abuse, and 44 (28.57%) reported experiencing moderate to severe child physical abuse.

Women who indicated that they were separated, divorced or widowed reported higher child physical abuse than single or married or cohabitating women, $F(2, 153) = 5.02$, $MSE = 90.13$, $p = .008$. No differences were observed across maternal relationship status for any
other study variable. In addition, we found no significant association between number of children, adults, or total individuals in the household and any other study variable.

The mean age of the women was 34.41 (SD = 8.02), and the mean age of their child was 9.74 (SD = 1.67). Boys in the sample were older than the girls, $M = 9.72$, $SD = 1.59$ vs. $M = 9.16$, $SD = 1.72$, $t = 2.08$, $p < .05$. No other differences were observed for maternal age, maternal self-identified race, maternal relationship status, maternal income, maternal education, or number of individuals in the household between mothers of boys and mothers of girls. Likewise, no group differences were observed for maternal warmth, child sexual abuse, PTSD, or depression between mothers reporting on boys and those reporting on girls; however, mothers of boys reported experiencing more child physical abuse, 2.97, $p < .01$ (see Table 1).

**Data analysis**

We first conducted Pearson’s correlations among the major study variables (i.e., maternal warmth, maternal child sexual abuse total, child physical abuse total, PTSD total, and depression total) and, using Fischer’s transformation, compared the strength of the associations for mothers reporting on sons and mothers reporting on daughters. Next, in the primary analysis, we conducted a hierarchical multiple regression predicting maternal warmth. The first model of the regression included the following predictors: Child gender (0 = male, 1 = female), maternal child sexual abuse total, child physical abuse total, PTSD total, and depression total. All continuous predictors were centered on their respective means. The second model of the regression included the previous predictors as well as four interaction terms: Child gender by maternal child sexual abuse total, child gender by maternal child physical abuse total, child gender by maternal PTSD total, and child gender by maternal depression total. Interaction terms were generated by multiplying child gender (0 and 1) by the mean-centered score for each continuous predictor.

**Results**

Maternal child sexual and physical abuse, PTSD, and depression were significantly positively associated with one another for mothers of both boys and girls, though the association between sexual abuse and physical abuse was significantly stronger in mothers of boys, Fischer’s $Z = 2.92$, $p < .01$. For mothers of boys and girls, maternal warmth was negatively associated with maternal depression. For mothers of girls, maternal warmth was significantly negatively associated with both maternal child sexual and physical abuse. This was not the case for mothers of boys. Furthermore, a comparison of the correlation between maternal warmth and maternal child sexual abuse revealed a significantly stronger correlation among mothers reporting on girls than for those reporting on boys, Fischer’s $Z = 2.37$, $p < .05$. The correlation between maternal warmth and child physical abuse was not significantly different between mothers reporting on boys and those reporting on girls.

In the first step of the hierarchical multiple regression predicting maternal warmth, a significant main effect of maternal depression was observed such that as depression increases, warmth decreases (see Table 2). No other main effect was observed. In the second step, maternal depression continued to demonstrate a significant main effect on maternal
warmth. In addition, a significant interaction of child gender and maternal sexual abuse was observed. As shown in Figure 1, at high levels of child sexual abuse, mothers reported less warmth toward their daughters than their sons. No other interaction was observed.

Discussion

In a sample of primarily low-income, African American mothers recruited from outpatient primary care, diabetes, and OB/GYN clinics of an urban public hospital and an emergency department waiting area of a pediatric hospital we found that maternal depression predicted decreased maternal warmth and that child sexual abuse also predicted decreased maternal warmth, but only toward daughters. These effects were observed even accounting for maternal child physical abuse and maternal PTSD.

Findings from the current study support the limited body of research demonstrating that child sexual abuse is associated with lower maternal warmth (Barrett, 2009; Cohen, 1995; Miller-Clayton, 2010), though previous studies did not examine the impact of child gender on that relationship. It is unclear why maternal child sexual abuse was associated with reduced maternal warmth toward daughters and not sons in our sample. Mothers with a history of child sexual abuse may engage in more permissive/peer-like interactions with sons (DiLillo & Damashek, 2003), perhaps as a result of maternal lack of confidence to manage these interactions with greater authority. Mothers who engage in these peer-like interactions with sons may also tend to interact with daughters with more hostility and less intimacy (Sroufe et al., 1985). It is possible that perceived hostility and reduced intimacy in mothers who have experienced child sexual abuse are the result of a motivation to protect their daughters from what they believe is a harsh or dangerous world, and perhaps one way they seek to achieve that protection is by being harder on their daughters to promote strength and independence. In line with this interpretation, in a sample of African-American mothers reporting on their relationships with their daughters, Miller-Clayton (2010) found that for those with a history of child sexual abuse, maternal warmth was negatively associated with a sense of self-reliance. The study did not look at mothers’ relationships with sons.

Emotional numbing toward children and dissociation have both been observed in trauma-exposed parents and may contribute to reduced maternal warmth (Ruscio, Weathers, King, & King, 2002; Trickett, Noll, & Putnam, 2011). Thus, it is also possible that daughters remind abused mothers of themselves at the ages they experienced the abuse, and, therefore, mothers may be more likely to maintain emotional distance to prevent such uncomfortable reminders.

Lower maternal warmth toward daughters has the potential to increase long-term emotional, social, and physical dysfunction in the next generation of potential mothers and caregivers (Brennan et al., 2003; Chen et al., 2011; Eiden et al., 2009; Ispa et al., 2004; McCabe et al., 1999; Tully et al., 2004). Moreover, daughters of women who were sexually abused as children are 3.6 times more likely to be sexually abused themselves compared to daughters of women who were not sexually abused (McCloskey & Bailey, 2000). If a daughter experiences sexual abuse in a family context characterized by low maternal warmth, she may
be reluctant to disclose the experience. On the other hand, she may disclose the experience but not receive appropriate emotional support.

The results of this study also support previous findings that maternal depression is associated with maternal warmth. A robust body of literature demonstrates that maternal depression is associated with a range of negative parenting behavior, including decreased positive affect toward and increased withdrawal from children (Lovejoy et al., 2000; Radke-Yarrow et al., 1993). Moreover, both maternal depression and maternal warmth are associated with serious adverse outcomes for children (Brennan et al., 2003; Goodman et al., 2011). Interestingly, results do not support a relationship between maternal PTSD and maternal warmth.

There are several limitations of note in this study. Because these data are cross-sectional, no firm causal conclusions can be drawn regarding the onset of depression, PTSD, or warmth relative to child sexual or physical abuse. In addition, because the current study is based on self-report measures, issues of self-report bias may impact the findings. Participants are likely to minimize aspects of parenting that appear socially undesirable (Morsbach & Prinz, 2006). Participants may also be prone to underreporting trauma, particularly child maltreatment (Widom & Morris, 1997; Widom & Shepard, 1996). Socially desirable responding may be particularly relevant because all measures, including self-report questionnaires, were administered verbally by a trained interviewer. This procedure was adopted to account for potential variability in literacy within a broader sample from which these women were recruited (see Gillespie et al., 2009). In addition, although no main effect or interaction effect was observed for child physical abuse, a notably—but not significantly—greater negative relationship was observed between child physical abuse and warmth for mothers of daughters compared to mothers of sons. Future studies should consider examining conditions, if any, under which this difference might be significant. Relatedly, it is also possible that the relationships among child sexual abuse, maternal warmth, and child gender could present differently across children’s development. Mothers in our sample reported on children in a narrow age range (8–12 years old), and it is possible that the pattern of findings observed in this study could become stronger or weaker or even reverse in direction across development. Future studies should consider replicating these findings in samples of mothers of younger children and older adolescents. Finally, because existing literature provides robust support for bidirectional influences between parents and children (e.g., Neece, Green, & Baker, 2012), it is important to consider potential bidirectional relationships in the current study between maternal warmth and other child characteristics (e.g., child aggression or withdrawal) that may impact the relationship between maternal child sexual abuse and maternal warmth.

Despite these limitations, this study is one of the first to examine the differential impact of maternal child sexual abuse on the parenting relationship with daughters and sons separately. Given previous findings demonstrating the impact of trauma on parenting (Cohen, Hien, & Batchelder, 2008; Field, Muong, & Sochanvimean, 2013) and findings highlighting the different ways parents interact with their daughters and sons regardless of trauma and psychopathology (Fivush, Brotman, Buckner, & Goodman, 2000; Lansford et al., 2010), studies of the impact of trauma on families could benefit from examining the role of child
gender. After all, in the current study, the association of child sexual abuse to maternal warmth may have been overlooked if examined only broadly without regard to child gender.

Acknowledgments
We thank the Grady Trauma Project research staff and coordinators, Angelo Brown, Allen W. Graham, and Rebecca Roffman as well as the nurses in the Clinical Research Network of Grady Health Systems.

Funding
This work was supported by funding from the National Institute of Child Health and Human Development (MH018264), the National Institute of Mental Health (MH100122-01; MH071537), and the Howard Hughes Medical Institute.

References
Eiden RD, Colder C, Edwards EP, Leonard KE. A longitudinal study of social competence among children of alcoholic and nonalcoholic parents: Role of parental psychopathology, parental...


Figure 1.
Mothers with high child sexual abuse report less maternal warmth toward girls than boys.
Table 1


<table>
<thead>
<tr>
<th></th>
<th>Mothers of Boys (N = 85)</th>
<th></th>
<th>Mothers of Girls (N = 69)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 PQ Maternal Warmth</td>
<td>90.76</td>
<td>9.57</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2 CTQ Sexual Abuse Total</td>
<td>10.34</td>
<td>6.62</td>
<td>-0.02</td>
<td>-</td>
</tr>
<tr>
<td>3 CTQ Physical Abuse Total</td>
<td>9.38</td>
<td>4.84</td>
<td>-0.01</td>
<td>0.66 ***</td>
</tr>
<tr>
<td>4 BDI Current Depression Total</td>
<td>19.31</td>
<td>13.70</td>
<td>-0.33 **</td>
<td>0.38 ***</td>
</tr>
<tr>
<td>5 MPSS Current PTSD Total</td>
<td>15.69</td>
<td>13.70</td>
<td>-0.21</td>
<td>0.55 ***</td>
</tr>
</tbody>
</table>

Note: PQ = Parenting Questionnaire; CTQ = Childhood Trauma Questionnaire; BDI = Beck Depression Inventory-II; MPSS = Modified PTSD Symptom Scale.

* p < .05,
** p < .01,
*** p < .001.
### Table 2
Hierarchical Multiple Regression Predicting Maternal Warmth.

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (SE B)</td>
<td>( \beta )</td>
<td>B (SE B)</td>
<td>( \beta )</td>
</tr>
<tr>
<td>Constant</td>
<td>91.02 (.97)</td>
<td></td>
<td>90.88 (.97)</td>
<td></td>
</tr>
<tr>
<td>Child Sex</td>
<td>−.08 (1.48)</td>
<td>.00</td>
<td>−.46 (1.48)</td>
<td>−.02</td>
</tr>
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<td>Sexual Abuse Total</td>
<td>−.10 (.15)</td>
<td>−.07</td>
<td>.18 (.21)</td>
<td>.13</td>
</tr>
<tr>
<td>Physical Abuse Total</td>
<td>.15 (.20)</td>
<td>.07</td>
<td>.10 (.27)</td>
<td>.05</td>
</tr>
<tr>
<td>Current PTSD Total</td>
<td>−.01 (.08)</td>
<td>−.02</td>
<td>−.06 (.10)</td>
<td>−.09</td>
</tr>
<tr>
<td>Current Depression Total</td>
<td>−.24 (.07)</td>
<td>−.33 **</td>
<td>−.24 (.09)</td>
<td>−.33 *</td>
</tr>
<tr>
<td>Child Gender × Sexual Abuse Total</td>
<td></td>
<td></td>
<td>−.65 (.30)</td>
<td>−.29 *</td>
</tr>
<tr>
<td>Child Gender × Physical Abuse Total</td>
<td></td>
<td></td>
<td>−.26 (.45)</td>
<td>−.06</td>
</tr>
<tr>
<td>Child Gender × Current PTSD Total</td>
<td>.14 (.16)</td>
<td>.11</td>
<td>.03 (.15)</td>
<td>.03</td>
</tr>
<tr>
<td>Child Gender × Current Depression Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( R^2 )</td>
<td>.12</td>
<td>.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( F ) model</td>
<td>4.10 **</td>
<td></td>
<td>3.07 **</td>
<td></td>
</tr>
</tbody>
</table>

Note:
* \( p < .05 \),
** \( p < .01 \).