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Breaking the Cycle of Maltreatment: The Role of Safe, Stable, and Nurturing Relationships

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Abstract

Purpose—We examine two research questions. First, does a history of child maltreatment victimization significantly increase the likelihood of maltreatment perpetration during adulthood? Second, do safe, stable, and nurturing relationships (SSNRs) during early adulthood serve as direct protective factors, buffering protective factors, or both to interrupt intergenerational continuity in maltreating behaviors?

Methods—Data come from the Rochester Youth Development Study that followed a community sample from age 14 to 31 with 14 assessments. Maltreatment victimization records covering birth through 17 were collected from Child Protective Services records as were maltreatment perpetration records from age 21 to 30. Data on five SSNRs were measured during three interviews from age 21 to 23.

Results—There is a significant relationship between maltreatment victimization and maltreatment perpetration (OR = 2.57; 95% CI = 1.47, 4.50). Three of the five SSNRs investigated —relationship satisfaction, parental satisfaction, and attachment to child—served as direct

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Implications and Contributions

This study demonstrates a significant level of intergenerational continuity in child maltreatment—from a history of victimization to an increased likelihood of maltreatment perpetration. But it also demonstrates that intergenerational continuity is far from certain and that safe, stable, and nurturing relationships can help break the cycle of maltreatment.

protective factors, significantly reducing risk for those who had been maltreated. However, none of the interaction terms—between maltreatment victimization and the SSNR—were statistically significant, indicating that the SSNRs did not serve as buffering protective factors

Conclusions—Although a history of maltreatment significantly increases the risk of subsequent perpetration of maltreatment, enhancing safe, stable, and nurturing relationships with intimate partners and with children during early adulthood can decrease the odds that a victim of maltreatment will become a perpetrator. Mandated reporters and service providers should be aware of the risk posed by earlier maltreatment and be prepared to ameliorate that risk, in part by strengthening supportive social relationships.

Keywords

maltreatment; intergenerational continuity; safe; stable; and nurturing relationships

Introduction

Child maltreatment, a serious individual and public health problem in American society, generally encompasses physical, sexual, and emotional abuse, as well as several different dimensions of neglect (1). The Child Abuse and Prevention Treatment Act (CAPTA) of 1974 (re-authorized in 2010) defines maltreatment as "… any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm" to a person under the age of 18 (2). Research indicates that the majority of maltreatment cases involved neglect and perpetrators who were related to the victim (i.e., parents or other relatives) or close to the victim's family (i.e., unmarried partner of a parent) (3). National estimates of the extent of maltreatment are based on data from the National Child Abuse and Neglect Data System (NCANDS) and the fourth National Incidence of Child Abuse and Neglect (NIS-4). In 2010 NCANDS recorded about 3.6 million referrals of alleged maltreatment to state Child Protective Services (CPS) agencies and identified 695,000 victims of 754,000 substantiated cases of maltreatment (3). In 2005–2006 NIS-4 which relied on reports from a sample of sentinels estimated that approximately 1.25 million children experienced maltreatment using their harm standard, and slightly fewer than 3 million children—or about 1 in every 25 children—were maltreated using their endangerment standard (4). By any standard, these rates of child maltreatment are unacceptably high.

The burden of maltreatment is also unacceptable. Longitudinal studies have linked maltreatment to a host of negative emotional, psychological, and behavioral outcomes across the life course (5–11). Additionally, the total lifetime economic burden of child maltreatment has been estimated to be $124 billion, though in sensitivity analysis the estimate rose as high as $585 billion (12). Although the World Health Organization (WHO) stated that the "consensus from research is that individuals with a history of abuse in childhood are at increased risk of maltreating their own children" (13: p.8), continuity estimates range considerably—from 7% to 40% (14–16). This variability may be related to the fact that intergenerational studies rarely include longitudinal data, multiple respondents, representative samples and, in general, are methodologically weak (see 17, 18 for reviews).

Additional research based on longitudinal designs is needed to obtain more precise estimates of continuity, which is one of the aims of the present study.

The prevalence and consequences of child maltreatment, within and across generations, underscore the need for effective prevention efforts. Such efforts are critically dependent on understanding processes that give rise to risk and protection. Yet relatively little research has focused on either the developmental pathways associated with maltreatment perpetration or the buffering protective factors that safeguard against risk of perpetration (19, 20). A second aim of the current study, therefore, is to advance understanding of factors associated with interrupting the transmission of maltreatment from one generation to another by empirically testing whether positive social relationships act as either direct protective factors for individuals who have been maltreated (i.e., factors that reduce the odds of perpetration *among those who have been maltreated*), buffering protective factors (i.e., factors that change the effect of maltreatment history on the odds of perpetrating maltreatment), or both.

Literature Review

Although a history of childhood maltreatment may increase the chances of maltreatment perpetration, other factors may create turning points in this trajectory. Research on resilience, for example, finds that not all youth who experience serious risk, including maltreatment, experience negative outcomes (21, 22). Moreover, Caspi and Elder (23) remind us that protective experiences can occur at any phase of the life course as age-graded roles and social settings are patterned into and unfold over the entire life course. The present study focuses on early adult roles and relationships, examining in particular safe, stable and nurturing relationships (SSNRs), factors identified by the Centers for Disease Control and Prevention's (CDC) general strategy for child maltreatment prevention (24). The factors of interest in this study—relational attachment, satisfaction, and support—can affect the degree to which a parent interacts in nurturing ways to ensure their children navigate through safe and stable environments.

Relational perspectives predict that individuals who have been maltreated as children will struggle to have positive relationships with others in adulthood (25). Therefore, one would expect that parents maltreated in childhood who establish positive relationships with their children might be less likely to perpetrate abuse and neglect and thus be buffered from the ill effects of maltreatment victimization. Indeed, mothers who are understanding of children and show increased responsiveness and sensitivity are less likely to maltreat (26, 27).

Studies of intergenerational continuity in physical abuse have suggested that the perception of support from significant adults (28, 29) and the perception of current family support in the face of past maltreatment are linked to a reduction of maltreatment risk (30, 31). When maltreated parents are successful at accessing support, it has been shown to be helpful (32). Though findings are mixed, research has shown that positive partner relationships may be protective. Partners who are emotionally close tend to provide more concrete support which may help to enhance family functioning (33). Furthermore, a number of studies indicate that partner support is a potential buffering protective factor against poor parenting behaviors (21). However, a study of high risk mothers did not find that partner support affected or

moderated the impact of parenting risk on maltreatment outcomes (25). However, research indicates that the presence of violence in partner relationships increased the risk of child maltreatment perpetration; in contrast, separation reduced child maltreatment within violent relationships (34).

Intervention studies have also assessed the role of parent-child and adult-adult relationships in preventing maltreatment. Specifically, studies with at-risk mothers found that maltreatment is reduced when knowledge, skills, and comfort with parenting are strengthened (35, 36). Accordingly, parenting programs involving home visits to high risk mothers promote empathic care of children by mothers and alter dysfunctional parenting tendencies. The visitor model also provides a supportive relationship and resources to support positive parenting as well as child safety. Other interventions that promote improved parenting, parent-child attachment, and partner relationships include Triple-P (37) and Healthy Families America (38).

In summary, maltreatment appears to show intergenerational continuity, but given that most individuals with a maltreatment history do not become perpetrators, many factors are likely to shield or counteract risk and reduce the likelihood of perpetrating abusive and neglectful behaviors with the next generation. There is growing scientific evidence that substantiates the role of “supportive family environment and social networks” (39) in preventing maltreatment. Although research suggests SSNRs may protect against exhibiting maltreating behavior as an adult, rarely has this issue been explored with longitudinal data across multiple generations. Given both the conceptual and empirical possibilities that SSNRs might reduce maltreatment risk, it is timely to investigate these relationships in a longitudinal context, focusing attention on both those with substantiated histories of experiencing maltreatment and those without.

This study employs data from the Rochester Youth Development Study (RYDS)—a longitudinal study of an urban sample which includes a substantial proportion of youth with CPS substantiated maltreatment, as well as various measures of social relationships that can advance understanding of which factors interrupt the cycle of maltreatment. We investigate how a specific negative consequence of experiencing maltreatment— engaging in later maltreating behavior—may be averted by the presence of SSNRs in adulthood. The general aim of this research is to test three key hypotheses: 1) there is a significant degree of intergenerational continuity in maltreatment, 2) SSNRs in early adulthood decrease the likelihood of perpetration among maltreated individuals (i.e., SSNRs are direct protective factors), and 3) SSNRs in early adulthood offset or buffer the negative effect of maltreatment on perpetration (i.e., SSNRs are buffering protective factors).

Methods

Sample

The RYDS sample of 1,000 adolescents represented the entire 7th and 8th grade public school population of Rochester, New York in 1988. All procedures were approved by the IRB at the University at Albany. Participants age 18 and older provided informed consent

for their participation. Parents provided informed consent for their children under age 18; children also provided assent.

Youth at high risk for delinquency and drug use were overrepresented by disproportionately stratifying on gender (75% males) and proportionately stratifying on residence in high-crime areas of the city. To account for the oversampling, we adjust for these two variables in all models presented below. Participants were interviewed a total of 14 times from age 14 to 31 with high retention (85% at age 23 and 80% at age 31); those retained still represent the original sample.

A sub-sample of 711 participants—all participants who have data on both maltreatment victimization and perpetration, as well as at least one of the moderators—are included in the current study. Of the 711 participants considered in these analyses, 70.2% are male, 69.5% are Black, 14.8% are Hispanic, and 15.7% are White, non-Hispanic. The family of the majority of the participants (59.3%) lived in poverty at the start of the study. SSNRs were measured during three interviews at ages 21, 22, and 23. Given the fact that at the time of interview participants had varying statuses with respect to being in a relationship and being parents, only individuals who had a romantic partner and individuals who had children were able to provide responses about relationship satisfaction and parenting factors, respectively. Thus, each moderation model is limited to individuals who reported on the respective relationships during at least one of the three aforementioned interviews. As a result, the sample size in the analytic models differs by specific SSNR: N=552 for relationship satisfaction (77.6% of the 711 participants were in a relationship), N=401 for parenting satisfaction and attachment to child (56.4% of the 711 participants had a child), and N=711 for attachment to and support from a parent figure.

Measures

Dependent Variable: Maltreatment Perpetration—To measure perpetration, we conducted a statewide search of CPS records at the New York State Office of Children and Family Services in 2010 to identify all substantiated incidents of maltreatment perpetration by study participants. This included incidents of neglect, physical, psychological, or sexual abuse toward any child (not just their own). In the present analysis we limit the assessment of maltreatment perpetration to the ages of 21 to 30 to correspond better with the measurement of the moderators (ages 21 to 23). A total of 61 (8.6%) of the sample considered here perpetrated maltreatment one or more times between the ages of 21 and 30. An additional 26 individuals perpetrated after age 30.

Independent Variable: Experienced Maltreatment—To measure maltreatment victimization, we utilized Child Protective Services (CPS) records in Monroe County, New York, and collected all substantiated incidents from birth to age 18 in which our participants were the victims of maltreatment. A total of 148 (20.8%) of the sample considered here were maltreated during childhood or adolescence based on these official records. The average number of incidents per maltreatment victim is 1.69 (SD=1.47). Given the sample size and the number of maltreatment incidents, we cannot conduct analyses by type of maltreatment. We know, however, that in the case of both victimization and perpetration, co-occurrence of

types was present in over half of the incidents. In 130 of the 148 maltreatment cases (i.e., 87.8%), the victim's mother and/or father was the perpetrator.

Moderators—Five SSNR variables are considered as potential moderators. They were measured at three interviews conducted when the participants were on average ages 21, 22, and 23. *Relationship satisfaction* includes six items, measured on a four-point scale ranging from never to often, that assess such issues as the extent to which respondents get along well with their partner and that the relationship is close. Cronbach's α at each interview was .89. *Parental satisfaction* includes three items that assess satisfaction with their child's behavior, their role as a parent, and their relationship with their child, measured on a five-point scale ranging from very dissatisfied to very satisfied ($.74 \leq \alpha \leq .78$). *Attachment to child* includes nine items, measured on a four-point scale ranging from never to often, including how well they get along with the child, how much they enjoy the child, and how proud they are of the child ($.70 \leq \alpha \leq .75$). For relationship satisfaction, parental satisfaction, and attachment to child, the mean of the items at each wave was calculated to create three scales scores of each SSNR, one at each wave. At ages 21 to 23 we asked a series of questions about their current relationship with a "parent figure"; respondents could answer about as many as three relationships, for example, mother, father, and "another" caregiver. One set of questions, *attachment to parent figure,* includes eleven items that assess the extent to which they currently get along well with and like that person as measured on a four-point scale ranging from never to often ($.84 \leq \alpha \leq .89$). The second set, *support from a parent figure*, measured on a four-point scale ranging from very unlikely to very likely, includes six items that assess the extent to which the respondent received support from the person, for example talking about problems, getting help in an emergency, and borrowing money ($.85 \leq \alpha \leq .92$). For each scale, since we were interested in the overall level of SSNRs available to the respondent and not SSNRs from a particular person, we use the maximum score available at each wave. For all five SSNR's, we used the scale scores from each wave (3 in total) as latent variable indicators of the corresponding SSNR factor in a series of structural equation models.

Control Variables—Gender and neighborhood arrest rate are included as control variables because they are the stratifying variables. Age, race/ethnicity (comparing African American, Hispanic, and white respondents), socio-economic status of the family, and neighborhood poverty rate are included as control variables because they have been related to maltreatment in previous studies. All control variables were centered at the mean in the sample.

Analysis

The first incident of official maltreatment perpetration between the ages of 21 and 30 was modeled using a discrete time survival analysis (DTSA) in Mplus, Version 6.11. A robust maximum likelihood estimator with a logit link was employed. This is a full information maximum likelihood estimator (FIML); therefore, missing data on some of the moderator indicators was accommodated. In five separate models, one for each moderator, the ten perpetration indicators (corresponding to onset at each age between 21 and 30) were regressed on child maltreatment status, the moderator of interest, a child maltreatment status by moderator variable interaction term, and the control variables described above.

Results

Intergenerational Continuity

Adjusting for the control variables, a history of maltreatment substantially and significantly increased the odds of maltreatment perpetration between the ages of 21 and 30 (odds ratio = OR = 2.57, 95% confidence interval = 95% CI = 1.47, 4.50). That is, the odds of perpetration were about 2.6 times higher for study participants who were maltreated as compared to study participants who were not maltreated.

SSNRs as direct protective factors

A direct protective factor is a variable that decreases the likelihood or level of a problematic outcome among those at risk. We sought to determine if the SSNR factors lowered the odds of perpetration for maltreatment victims. We also estimated the effect of SSNRs on the odds of perpetration among those who were not maltreated. Table 1 presents the effect of each SSNR factor on the odds of perpetration for the maltreated group and the non-maltreated group. For those who were maltreated as a child or adolescent, positive adult-intimate partner and adult-child relationship factors lowered the odds of maltreatment perpetration. Specifically, a better relationship with a romantic partner, more satisfaction with parenthood, and better attachment to child reduced the odds of perpetrating maltreatment through age 30. However, neither current attachment to nor support from a parent figure reduced the odds of maltreatment continuity. In contrast, among those who were not maltreated, SSNRs did not lower the odds of maltreatment perpetration; specifically none of the SSNR factors were significant (at $p < .05$), although all effects were in the expected direction.

SSNRs as buffering protective factors

A buffering protective factor is a variable that significantly offsets the harmful effect of a risk factor (i.e., maltreatment) on an outcome (i.e., perpetration). A significant interaction between the risk (i.e., maltreatment) and protective factor (i.e., SSNR) is indicative of a buffering effect. Despite finding that several of the SSNRs were compensatory for the maltreated group but not for the non-maltreated group, none of the maltreatment status by SSNR interaction terms reached statistical significance: relationship satisfaction (Est. = −1.30, SE = 1.11, $p = .24$), parental satisfaction (Est. = −1.38, SE = 1.08, $p = .20$), attachment to child (Est. = −2.45, SE = 1.77, $p = .17$), attachment to parent figure (Est. = .67, SE = 1.28, $p = .60$), and support from parent figure (Est. = −.14, SE = 1.03, $p = .90$).

To depict the results of each DTSA, Figure 1 presents the model estimated survival probabilities (i.e., the probability of not perpetrating) as a function of maltreatment status and level of the SSNR (Low SSNR = 1 SD below the sample mean; High SSNR = 1 SD above the sample mean). Focusing on the three significant SSNRs—relationship satisfaction, parental satisfaction, and attachment to child—the compensatory effect of the SSNRs for the maltreated individuals is represented by the difference between the dotted lines. Here, we see that among those who were maltreated, individuals with high SSNRs were substantially less likely to perpetrate maltreatment as compared to those with low SSNRs. Despite the fact that the difference in the effect of these SSNRs on perpetration

between those who were maltreated (dotted lines) and those who were not maltreated (solid lines) seems pronounced in the figure, the non-significant interaction terms indicate that the harmful effect of maltreatment on the odds of subsequent perpetration between the ages of 21 and 30 is not significantly offset by these SSNRs in young adulthood. In sum, we can conclude that relationship satisfaction, parental satisfaction, and parental attachment to child —but not relationships with the parent figure—likely decrease the odds of perpetration among maltreated individuals (i.e., they serve as direct protective factors), but we cannot conclude that these are true buffering protective factors that offset the ill effect of maltreatment on subsequent perpetration.

Discussion

Overall, we find support for two of the three research hypotheses. First, the design of the current study addressed methodological limitations of previous studies which likely have resulted in the wide range of intergenerational continuity estimates that currently exist in the literature (17, 18). Here, participants who experienced a history of maltreatment victimization were significantly more likely to perpetrate maltreatment in adulthood, even when controlling for important covariates. In particular, between the ages of 21 and 30, 14.9% of those who were maltreated perpetrated abusive and neglectful behaviors toward children, compared to 6.9% of those who were not maltreated.

Second, three of the five SSNRs—relationship satisfaction, parental satisfaction, and attachment to child—served as direct protective factors. For individuals with a history of maltreatment these positive social relationships in early adulthood significantly reduced the odds of maltreatment perpetration; for those individuals without a maltreatment history these relationships were not related to subsequent perpetration. Despite the pattern of these cross-group differences, none of the interaction terms between the SSNRs and maltreatment victimization are statistically significant. While the sharp differences between the curves presented in Figure 1 are suggestive of buffering protective factors (i.e., the compensatory effect of several SSNRs appears larger for maltreatment victims), the estimated discrete time survival models do not provide evidence for SSNRs as moderators of the effect of maltreatment on subsequent perpetration. Nevertheless, identifying that these relationship variables play a compensatory role in reducing the chances of perpetrating maltreatment among victims is consistent with CDC's overall goal of promoting, safe, stable, and nurturing relationships to increase positive child outcomes. Our findings are consistent with previous theory and findings relevant to the CDC strategy that suggest that improving critical and healthy relationships can serve an important function in breaking the cycle of maltreatment (29, 31).

It is important to note, however, that only some of the hypothesized relationship factors were significant. The null findings for current attachment to and support from a person's primary caregiver during adolescence remind us that not all positive relationships provide preventive benefit. Relationships with parents were significantly related to reductions in problem behaviors during adolescence for this sample (40), but not to perpetration of maltreatment during adulthood. This pattern is consistent with the general life-course perspective (23) which posits that the same types of social relationships have different

impacts at different stages of the life course. Thus, it is imperative to identify the most salient relationships that can influence reductions in maltreatment risk at different developmental stages.

We also note that we examined the impact of the parent figure for all members of the current sample regardless of whether or not they had a partner. It is possible that the impact of a positive relationship with a parent figure would be more needed and therefore more powerful for participants who do not have a current partner. Relatedly, we were unable to take into account whether the parent figure was also the perpetrator of the earlier maltreatment, which is the preponderance of the cases in our data. That prior behavior may influence the nature of the positive relationship between the focal respondent and his/her parent figure, as well as the magnitude of its impact. Unfortunately, given the overall sample size it was not feasible to conduct these types of analyses for smaller subgroups (i.e., only 10 maltreated participants who had a child at early adulthood did not have a romantic partner). Nevertheless, these are obviously important issues for future research to address.

The findings of this study have important implications for child maltreatment intervention and prevention services. First, since maltreatment victimization is an important and sizable risk factor for later perpetration of maltreatment, it is important that professionals in many different disciplines identify and connect maltreatment victims to programs that can help interrupt continuity. It is also important that therapists in programs for high risk parents be aware of such a history, possibly via intake assessments, and that they be prepared to address its implications throughout treatment (29). Second, programs should work to enhance supportive current relationships for the parent, especially with respect to partner relationship satisfaction, parental satisfaction, and attachment to their children in order to break the cycle of maltreatment. There are a number of interventions, with supportive evidence, that promote improved parenting, parent-child attachment, and partner relationships (36, 38) that can be used as models.

As is true of all studies, this one has limitations. We were not able to investigate types of maltreatment, either for victimization or perpetration, because of small cell sizes. Second, our measures are based entirely on substantiated CPS incidents and, even though they have demonstrated validity (20, 41), they are only one window into the complex phenomena of child maltreatment victimization and perpetration and are likely to underestimate the extent of maltreatment. Third, some of the measures, for example relationship satisfaction, are only available for the subset of the sample that was in a relationship and therefore asked these questions. Finally, the current analysis focuses on one specific issue with respect to the pathways that lead from maltreatment victimization to maltreatment perpetration. There are many other important pathways, for example, whether the victims of adolescent maltreatment end up in an abusive partner relationship and how that contemporary level of intimate partner violence influences both maltreatment perpetration and the mediating role of safe, stable, and nurturing relationships. These and other relationships are all potentially important and worthy of future investigation. Despite these limitations, the present study does contribute in important ways to the literature on this topic. Using prospective longitudinal data, we demonstrate support both for the cycle of maltreatment hypothesis and for the important role that safe, stable, and nurturing relationships can play in influencing

the interruption of the cycle of child maltreatment between generations. Prevention programs that can address relational factors such as attachment, satisfaction, and support are likely to reduce the level of child maltreatment and to improve both the physical and mental health of subsequent generations within these families.

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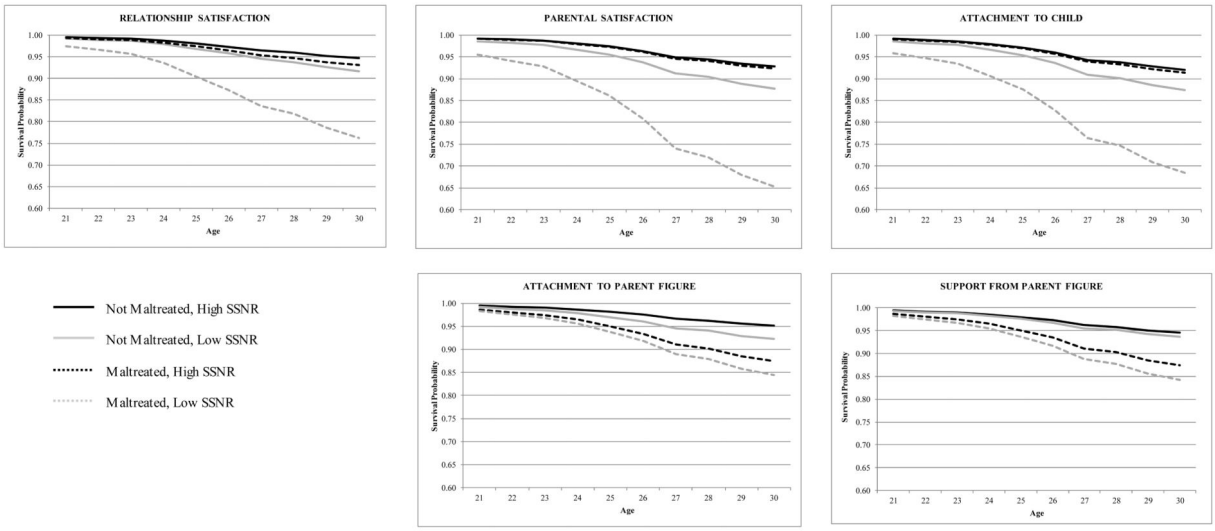

Figure 1.

Survival probabilities for maltreatment perpetration between the ages of 21 and 30 as a function of maltreatment status and level of SSNR. All control variables held constant at the sample mean.

Table 1

Effect of SSNR factors on the odds of perpetration by maltreatment status

	Maltreated Youths				Non-Maltreated Youths			
	Est.	**SE**	**OR**	***p-value***	**Est.**	**SE**	**OR**	***p-value***
Relationship Satisfaction	−1.99	0.97	0.14	0.039	−0.69	0.69	0.50	0.317
Parental Satisfaction	−2.07	0.97	0.13	0.034	−0.69	0.47	0.50	0.138
Attachment to Child	−3.67	1.66	0.03	0.027	−1.22	0.80	0.29	0.127
Attachment to Parent Figure	−0.61	1.02	0.54	0.548	−1.28	0.80	0.28	0.110
Support from Parent Figure	−0.42	0.88	0.66	0.633	−0.29	0.58	0.75	0.623

Est. = Estimate in log odds (i.e., the natural logarithm of the odds of onset of perpetration between ages 21 and 30); SE = Standard Error; OR = Odds Ratio. Regression estimates are adjusted for gender, race/ethnicity, age at baseline, socio-economic status, neighborhood arrest rate, and neighborhood poverty rate.