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## Female sexual-offenders: Personality pathology as a mediator of the relationship between childhood sexual abuse history and sexual abuse perpetration against others

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### Abstract

**Objective:** : The goal was to examine, in an all female sample, possible mechanisms for the relationship between a history of childhood sexual abuse and the likelihood of perpetrating sexual abuse as an adult. It was hypothesized that Borderline and Antisocial Personality Disorder tendencies would mediate the relationship between these two forms of abuse.

**Method:** : One hundred forty two female participants (61 sex-offenders and 81 non-sex offenders) were recruited from a woman's prison in the Midwest. The participants completed measures that included a childhood history of sexual abuse, socially desirable responding, primary and secondary psychopathy, and Borderline Personality Disorder tendencies.

**Results:** : Participants in the sexual-offender group reported more frequent instances of childhood sexual abuse ( $p < .05$ ,  $M = 16.4$ ,  $SD = 7.2$ ) than participants in the non-sex offender group ( $M = 12.2$ ,  $SD = 7.7$ ). Consistent with past research, childhood sexual abuse was related to Borderline Personality Disorder tendencies ( $r = .36$ ,  $p < .01$ ). However, discriminant function analyses did not reveal support for our mediational hypotheses. Finally, the results indicated that participants in the sexual-offender group experienced childhood sexual abuse for a greater duration of time ( $p < .05$ ,  $M = 27.8$ ,  $SD = 20.5$  months) than participants in the non-sex offender group ( $M = 16.6$ ,  $SD = 10.4$ ).

**Conclusions:** : This study replicated previous research conducted on all male samples suggesting that the nature of the sexual abuse suffered in childhood is an important variable in predicting future sexual abuse perpetration.

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**Keywords:** Female sex-offenders; Childhood sexual abuse; Personality disorders

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## Introduction

Relatively little research has been conducted on female sex-offenders in comparison to males. Although not without its critics (Rivera & Widom, 1990), the research that does exist suggests that the experience of childhood sexual abuse (CSA) may be a risk factor for the later perpetration of sexual abuse of children (Becker, Hall, & Stinson, 2001; Christiansen & Thyer, 2002). The current study is designed to explore mechanisms for this possible link between childhood victimization and sexual abuse of children perpetrated by women. A second aim is to examine whether the nature of women's own history of CSA (e.g., duration and relationship to the abuser) is associated with perpetration of sexual abuse of children.

### *Predictors of sexual abuse perpetration in females*

Social scientists have begun to develop an increased interest in addressing the question of why females, in particular, sexually victimize children (Becker et al., 2001; Christiansen & Thyer, 2002; Grayston & De Luca, 1999). Most of the studies on this topic are qualitative in nature and consist of sample sizes that are too small to be used to draw firm conclusions (Christiansen & Thyer, 2002). Not only are the samples sizes inadequate, but the participants are also typically psychiatric patients or prisoners (e.g., Nathan & Ward, 2002). As a result, the generalizability of these studies may be substantially limited (Becker et al., 2001). An additional limitation is that much of this work is cross-sectional, correlational research, and, therefore, precludes causal claims. Two variables that have received considerable attention are the child sexual-offender's history of CSA and the psychopathology of these perpetrators.

*Childhood history of sexual abuse.* A history of CSA is a widely investigated potential risk factor for perpetration of sexual abuse of children (Becker et al., 2001; Christiansen & Thyer, 2002). However, as is the case with other studies exploring possible causes of sexual abusing behavior in women, many of these studies rely upon small sample sizes and are qualitative in nature. For instance, Lewis and Stanley (2000) examined a sample of 15 women who were being evaluated on charges of sexual assault. Of these women, 12 reported a past history of sexual abuse. Similar results have been found for adolescent female perpetrators (Fehrenbach & Monastersky, 1988; Hunter, Lexier, Goodwin, Browne, & Dennis, 1993; Mathews, Mathews, & Speltz, 1999). For instance, a study ( $N = 16$ ) by Mathews et al. (1999) found that 78% of their sample of female, adolescent sex-offenders reported a history of CSA. Additionally, in a small study by Hunter et al. (1993), all 10 adolescent, female sexual-offenders reported a history of sexual abuse prior to their first victimization.

A large scale study ( $N = 1,575$ ) by Rivera and Widom (1990) using a prospective cohort design suggests that the relationship between CSA and adult sexual offending may not be as straightforward as other research might suggest. Specifically, their study revealed a relationship between CSA and perpetration of sexual abuse in adult males, but not adolescent males. In contrast, this relationship was significant in adolescent females, but not adult females. These investigators speculated that the lack of a demonstrated effect in adult females may reflect the relatively low number of identified female sex-offenders compared to males.

*Psychopathology.* Several studies of female, child sexual-offenders have also focused on the role of personality or mood disorders to help explain their behavior (e.g., Green & Kaplan, 1994; Travin, Cullen,

& Protter, 1990). In a sample of 11 incarcerated female sex-offenders (ages 21–68), Green and Kaplan (1994) found that eight demonstrated Posttraumatic Stress Disorder and alcohol and substance abuse. The results indicated that the sexual-offender group was more likely than the non-sexual offender group to be diagnosed with personality disorders associated with impulse control problems, such as Borderline Personality Disorder and Antisocial Personality Disorder (Green & Kaplan, 1994). Another study of nine (ages 19–35) female sexual-offenders found Borderline Personality Disorder to be a prominent characteristic in their sample (Travin et al., 1990).

When researchers examine adolescent, female sexual-offenders, they find similar results in that these young women often have diagnoses that are typically viewed by clinicians as childhood precursors of Antisocial or Borderline Personality Disorders. For example, using a sample of young male and female sex-offenders, Gray, Busconi, Houchens, and Pithers (1997) found that these participants had high rates of Conduct Disorder, Attention Deficit Disorder, and Oppositional Defiant Disorder. Additionally, Vick, McRoy, and Mathews (2002) found that in a large survey of clinicians who work with young female sex-offenders the most common diagnoses included PTSD, Conduct Disorder, and Dissociative Disorders. Other common problems that were noted among this population were self-injurious behaviors and substance abuse. The findings of Vick et al. (2002) are particularly noteworthy in that this study included a much larger sample than is typical for this population.

Taken together these studies on psychopathology as a risk factor for sexually abusive behavior suggest that Antisocial or Borderline Personality Disorder characteristics may be common concurrent features of female sex-offenders. Borderline Personality Disorder is characterized by severe interpersonal disruptions, impaired coping skills, and problems in affect regulation (Kehrer & Linehan, 1996). These deficits in interpersonal functioning and affect regulation may account for the observed link between Borderline Personality Disorder and the committing of sexual offenses. A study by Nathan and Ward (2002) examining the expressed motivation for the sexual offenses of 12 incarcerated females (ages 19–34) found that over half of these women gave revenge, anger, or jealousy as the reason for their crime. Based on these results, these investigators asserted that more attention needs to be given to the possibility of a subtype of female sex-offenders who have significant impairments in emotional regulation and use sex crimes against children as a coping strategy.

The act of sexual abuse perpetration is also congruent with many of the features of Antisocial Personality Disorder in that this disorder in the DSM (American Psychiatric Association, 1994) is defined by socially deviant behaviors such as lying, frequent arrests, and physically aggressive behavior. According to the authors of the DSM-IV, individuals with Antisocial Personality Disorder are also more likely than persons without the disorder to be irresponsible and exploitive in their sexual relationships (American Psychiatric Association, 1994). Further, Antisocial Personality Disorder is thought to represent behavioral indicators of the hypothetical construct of psychopathy (Hare, Hart, & Harpur, 1991) which embodies both antisocial acts, as well as personality traits such as a grandiose sense of self-worth, a contempt for the rights or suffering of others, callousness, impulsivity, and lack of empathy or feelings of remorse for their misdeeds against others (Hare, 1991). Empirical investigations of male psychopathic offenders suggest that they are among the most prolific and violent of criminals, committing a wider variety and number of crimes than the average criminal (Hare, McPherson, & Forth, 1988; Kosson, Smith, & Newman, 1990). Research using male samples suggests that sexual-offenders who possessed psychopathic features (e.g., lack of empathy for others and contempt for the suffering of others) have higher recidivism rates than sexual-offenders low on these attributes (Serin, Mailloux, & Malcolm, 2001), but no studies, to our knowledge, have examined psychopathy in female sex-offenders.

### *Nature of abuse*

In view of the evidence at least partially supporting a relationship between CSA and perpetration of sexual abuse as an adult, some researchers have begun to explore whether specific characteristics of the abuse increase the likelihood of the victims becoming a sexual-offender themselves. For instance, studies of male sex-offenders indicate that they are more likely to have experienced other types of trauma such as physical or emotional abuse than non-offenders or those sex-offenders who were rehabilitated (Burton, 2000; Dhawan & Marshall, 1996). Studies on female sex-offenders have utilized small samples without comparison groups, but seem to indicate that physical and emotional abuse may be common among female sex-offenders (Travin et al., 1990) as is having been sexually victimized by someone trusted or familiar to the victim (Johnson, 1989). Although duration of sexual abuse has been hypothesized as an important factor in predicting later perpetration of sexual abuse (Garland & Dougher, 1990), few studies have explored whether sexual-offenders suffered longer periods of sexual abuse than non-offenders with abuse histories, especially in an all-female sample. However, duration of CSA has been linked to a wide variety of other impairments in functioning among adult women, such as physical health problems and a greater degree of psychiatric symptoms (Lange et al., 1999; Lundqvist, Hansson, & Svedin, 2004; Merrill, Thomsen, Sinclair, Gold, & Milner 2001; Wyatt & Newcomb, 1990).

### *Our model and the current study*

In summary, the research concerning women suggests that CSA, sexual offending behavior, and Borderline or Antisocial Personality Disorder tendencies are variables that are all inter-correlated (Fehrenbach & Monastersky, 1988; Green & Kaplan, 1994; Hunter et al., 1993; Lewis & Stanley, 2000; Luntz & Widom, 1994; Travin et al., 1990; Trull, 2001). These findings imply that Antisocial and Borderline Personality traits may mediate the relationship between the experience of CSA and the later perpetration of sexual abuse in adulthood. That is, sexual abuse suffered in childhood may lead to the severe disruption in social functioning and affect regulation seen in such disorders as Borderline and Antisocial Personality Disorder. This disruption in social functioning and affect regulation then may become a risk factor for committing sex crimes. While some scholars have proposed this as a mechanism for the abused-abuser cycle of some women and adolescent girls (Friedrich & Luecke, 1988; Green & Kaplan, 1994), this hypothesis has yet to be tested directly. A few studies, using samples of both young adult males and females, have found Antisocial Personality Disorder or psychopathy to serve as mediators of the relationship between the experience of abuse as a child and violent behavior as adults, but these studies did not specifically address sexual abuse perpetration (Weiler & Widom, 1996; White & Widom, 2003). Thus, the current study is unique in two respects. First, we examined CSA, personality traits, and sexual abuse perpetration simultaneously as opposed to examining the relationship between personality disorders and either form of abuse in isolation. Second, we examined a large sample of females, a group that has been under-investigated with respect to the perpetration of sexual abuse against children.

A second purpose of the current study is to investigate whether the *nature* of the abuse endured by female sex-offenders as children is an important predictor of sexual abuse perpetration in adulthood. In the current study, we examined duration of CSA, the relationship between the participant and their own abuser as a child, and the presence of a history of physical or emotional abuse.

In the current study, we compared two groups: female prisoners convicted of sexual offenses against children and female prisoners convicted of other crimes. Using Baron and Kenny's (1986) model of

mediation we hypothesized the following Personality Disorder Mediation Hypotheses:

- H1: Women in the sexual-offender group would be more likely to report a history of CSA than those in the non-sex offender group.
  - H2: Antisocial and Borderline Personality tendencies would be positively correlated with a history of CSA.
  - H3: After statistically controlling for the effects of CSA, Antisocial and Borderline tendencies would predict sexual-offender versus non-sex offender group membership. Specifically, women in the sexual-offender group would score higher on Antisocial and Borderline Personality tendencies than women in the non-sex offender group.
  - H4: In contrast, after statistically controlling for Antisocial and Borderline personality tendencies CSA would not predict sexual-offender versus non-sex offender group membership.
- Nature of Abuse Hypotheses:
- H5: Women in the sexual-offender group would report having suffered longer periods of CSA than the women in the non-sex offender group.
  - H6: Women in the sexual-offender group would be more likely to report having been sexually victimized as a child by a family member (as opposed to a stranger or casual acquaintance) than the women in the non-sex offender group.
  - H7: Women in the sexual-offender group would be more likely to have experienced a combination of sexual abuse and either physical or emotional abuse than the women in the non-sex offender group.

## **Methods**

### *Participants*

Eligible participants were all inmates residing in a women's correctional facility in the Midwest at the time of the study. This incarcerated sample was selected due to difficulties inherent in identifying and recruiting female sex-offenders within the general population.

All inmates who were convicted of sexual crimes against minors (a total of 122 women) were given a pass to report to a room within the prison at a pre-designated time. These women were drawn from the prison's sex-offenders treatment program, a program in which all convicted sex-offenders within the prison were mandated to participate. Participants completed the study questionnaires in maximum groups of 25 throughout the day with 64 out of 122 agreeing to participate.

Prison staff constructed a randomized list of 150 inmates for the comparison group that were not part of the sex-offenders treatment program, and therefore, not convicted of a crime involving sexual assault. Inmates were removed from the list if they were in solitary confinement or enrolled in the Residential Treatment Unit. Passes were given to 143 inmates, and 88 agreed to participate.

Three participants from the sexual-offender group and three from the comparison group were omitted from the analyses due to failure to complete the survey and/or obvious reading comprehension difficulties. In addition, four participants from the comparison group were excluded from the analyses because a prison database made available to the investigators indicated that these women were in prison for committing sexual offenses.

Thus, the resultant sample consisted of 142 participants: 61 participants who had sexually victimized or aided in the sexual victimization of another person and 81 who had committed crimes other than sexual victimization (e.g., theft, drug offenses, or murder). Of the participants, 58% were Caucasian, 33% were African American, and 9% were of other racial identities.

### *Measures*

*History of childhood sexual abuse.* The Childhood Trauma Questionnaire (CTQ; Bernstein, Fink, Handelsman, & Foote, 1994) is a 28-item scale, which is used to identify traumatic experiences in childhood. Participants were asked to rate questions related to their exposure to various forms of abuse during childhood on a 5-point Likert scale. Response options range from “never true” to “very often true.” Thus, the scores for each subscale can be viewed as representing frequency or degree rather than a dichotomous judgment of whether they had experienced this type of abuse. This scale has five subscales including physical, emotional and sexual abuse, and emotional and physical neglect. The current study only used the sexual (e.g., being touched in a sexual way, being threatened physically unless she/he performed a sexual act, etc.), physical (e.g., being punched or hit with an object), and emotional abuse (e.g., being called insulting names or feeling that one of their parents hated them) subscales in the primary analyses. These subscales each consist of five items with possible values ranging from 5 to 25. The Cronbach’s alphas in the current study were .93, .87, and .90 for the sexual, physical and emotional subscales respectively.

The CTQ was modified for the current study by creating two follow-up, fill-in-the-blank questions after each of the five sexual abuse items: “If yes, then who? (examples a stranger, friend, cousin, sibling, etc.)” and “How long did this occur?” These two prompts after each of the abuse items formed the basis of the creation of the duration of abuse and relationship to abuser variables.

*Antisocial personality traits.* To measure antisocial personality traits, the Levenson’s Self-Report Psychopathy Scale was used (LSRP; Levenson, Kiehl, & Fizpatrick, 1995). This scale consists of 26 items which are answered on a four-point Likert-scale, with responses ranging from “disagree strongly” to “agree strongly.” Participants’ total scores may range from 26 to 104, with the primary psychopathy subscale ranging from 16 to 64 and the secondary psychopathy subscale ranging from 10 to 40. In the current study, we analyzed the two subscales separately. The primary psychopathy subscale largely assesses selfishness and lack of concern for the well-being of others. The secondary psychopathy subscale was designed to assess impulsivity and a self-defeating lifestyle. Some examples of questions for the primary psychopathy subscale include, “Success is based on survival of the fittest” and “For me, what’s right is whatever I can get away with.” Examples of the secondary psychopathy subscale include “I find myself in the same kinds of trouble, time after time,” and “I am often bored.” In the current study, the Cronbach’s alphas for these subscales were .77 (primary psychopathy) and .73 (secondary psychopathy).

*Borderline personality traits.* The Borderline subscale (the STB) of the Schizotypal Traits Questionnaire (STQ; Claridge & Broks, 1984) was used to assess Borderline Personality Disorder tendencies. The STB scale has 18 items consisting of a “yes/no” format, with scores ranging from 0 to 18. Examples of questions on the STB include “Do you often feel the impulse to spend money, which you know you can’t afford?” and “Do you hate being alone?” The Cronbach’s alpha of this measure in the current study was .82.



*Social desirability.* In order to assess the general tendency of a person to present an overly favorable impression of themselves, participants completed the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984). A unique advantage of the BIDR is that it measures two constructs: self-deceptive enhancement (i.e., the tendency to respond to questions in a manner that is honest, but positively biased) and impression management (i.e., the tendency to deliberately present an unrealistically positive impression of oneself). The Cronbach's alphas for this measure in our sample were .69 (self-deceptive enhancement) and .77 (impression management).

### *Procedures*

A consent form was administered and explained to the participants prior to the completion of the study measures. The questionnaires were counterbalanced using a random starting order with rotation (e.g., CBA, BAC, ACB). The advantages of this procedure are simplicity and that each questionnaire appears in each ordinal position equally often (Shaughnessy, Zechmeister, & Zechmeister, 2003). This study was approved by both the Institutional Review Boards of the University of Dayton and the prison from which the participants were recruited.

### *Data analyses*

Preliminary analyses were first conducted in order to determine whether the sexual-offender and non-sexual offender groups differed on the descriptive (age, education, number of prior convictions, and length of current prison sentence) or social desirability variables (self-deceptive enhancement or impression management). Specifically, a series of *t*-tests were calculated using sexual-offender versus non-offender group membership as the independent variable and the descriptive or social desirability variables as the dependent variable. The results indicated that there were no differences in age between the two groups (see Table 1). However, the women in the sexual-offender group had less education, fewer prior convictions, and were serving longer prison sentences than the women in the non-sex offender group. Consequently, these three variables were statistically controlled in the primary study analyses. Table 1 also depicts the results of analyses in which group membership as the independent variable and the two social desirability subscales as the dependent variables. Results indicated that there were not significant group differences in standing on these two subscales.

To test Hypothesis 1, an ANCOVA was calculated using sexual-offender versus non-sex offender group membership as the independent variable, CSA as the dependent variable, and three significant descriptive variables as the covariates. Hypothesis 2 was evaluated by calculating partial correlations between CSA and Borderline Personality tendencies and primary and secondary psychopathy while controlling for the three significant descriptive variables. Hypotheses 3 and 4 were tested simultaneously by calculating a discriminant function analysis with sexual-offender versus non-sex offender group membership as the criterion variable and CSA, Borderline Personality tendencies, primary and secondary psychopathy, and the three significant descriptive variables as the predictor variables.

In order to assess Hypotheses 5, an ANCOVA was calculated using sexual-offender versus non-sex offender group membership as the independent variable, duration of the CSA suffered by the participant as the dependent variable, and three significant descriptive variables as covariates. Only participants who were sexually abused and who indicated a time frame of the abuse were included in these analyses. Hypothesis 6 was assessed by calculating a chi-square using participants' relationship with the person

Table 1  
Descriptive statistics for continuous measures

Variables	Sex-offender ( <i>n</i> = 61)		Non-sex offender ( <i>n</i> = 81)		<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Demographic					
Age	37.2	8.3	35.2	9.3	<i>ns</i>
Education	9.7	3.9	9.9	5.1	.04
Prior # convictions	.3	.6	2.2	10.3	.05
Years in prison	6.4	4.8	2.9	3.7	.00
Predictor					
Sexual abuse	16.4	7.2	12.2	7.7	.04
Mediators					
Primary psychopathy	27.6	7.6	28.3	6.5	<i>ns</i>
Secondary psychopathy	23.9	6.4	24.8	5.4	<i>ns</i>
Borderline PD	6.6	4.5	7.2	4.2	<i>ns</i>
Social desirability					
Self-decept. enhancement	8.3	5.0	6.9	4.9	<i>ns</i>
Impression management	10.8	5.1	8.6	4.7	<i>ns</i>

who sexually abused them as a child and sexual-offender versus non-sex offender group membership as the two variables. Finally, to test Hypothesis 7, only women with a history of CSA were selected for this analysis. Specifically, women who chose the response option of “3” or greater on the item (“I believe that I was sexually abused”) were selected for this analysis. Two ANCOVAs were calculated using sexual-offender versus non-sex offender group membership as the independent variable. The dependent variable for these analyses was either childhood physical or emotional abuse, and the three significant descriptive variables were used as covariates.

## Results

### *Personality disorder mediation hypotheses*

Consistent with Hypothesis 1, participants in the sexual-offender group reported more frequent instances of CSA [ $F(1, 123) = 4.7, p < .05; M = 16.4, SD = 7.2$ ] than participants in the non-sex offender group ( $M = 12.2, SD = 7.7$ ). Consistent with Hypothesis 2 (see Table 2), CSA was significantly positively associated Borderline Personality tendencies ( $r = .36, p < .01$ ). However, CSA was not associated with primary ( $r = -.06, p > .05$ ) and secondary psychopathy ( $r = .14, p > .05$ ).

Hypotheses 3 and 4 were tested simultaneously by calculating a discriminant function analysis with sexual-offender versus non-sex offender group membership as the criterion variable and CSA, Borderline Personality tendencies, and primary and secondary psychopathy as the predictor variables. Support for these Hypothesis 3 would be obtained if the hypothesized mediators (Borderline tendencies and primary and secondary psychopathy) predicted sexual-offender versus non-sex offender group membership after the effects of CSA were statistically controlled. However, no significant differences in the hypothesized



Table 2

Partial correlations between experience of sexual abuse, borderline tendencies, and primary and secondary psychopathy controlling for education, number of prior convictions and length of current prison sentence

Variable	Sexual abuse	Primary psychopathy	Secondary psychopathy	Borderline PD
Sexual abuse	–			
Primary psychopathy	–.06	–		
Secondary psychopathy	.14	.43**	–	
Borderline PD	.36**	.31**	.67**	–

Note. \* $p < .05$ , \*\* $p < .01$ .

mediators were observed as a function of the type of offender group membership. Support for Hypothesis 4 would be indicated by a *failure* of CSA to predict sexual-offender versus non-sex offender group membership after the effects of Borderline tendencies, and primary and secondary psychopathy were statistically controlled. The results revealed that CSA continued to predict sexual-offender versus non-sex offender group membership even after the effects of the hypothesized mediators were statistically controlled [ $F(1, 116) = 9.9, p < .01$ ]. Thus, neither of these two essential conditions of mediation received support in the current study. Overall, the two groups (i.e., sex-offender and non-sex offender) were classified correctly 76.3% of the time, with participants in the sex-offender group correctly classified 72.3% of the time, and non-sex offenders correctly classified 78.9% of the time.

#### Nature of abuse hypotheses

When Hypothesis 5 was examined, a significant group difference [ $F(1, 32) = 4.6, p < .05$ ] was found, indicating that the women in the sexual-offender group suffered from longer periods of sexual abuse ( $M = 27.8, SD = 20.5$ ) than did the women in the non-sex offender group ( $M = 16.6, SD = 10.4$ ). With respect to Hypothesis 6, the results indicated that there was no significant relationship between membership in the sexual-offender versus non-sex offender group and the type of relationship between the participant and the person who sexually abused them as a child ( $\chi^2 = .002, p > .05$ ). Finally, when Hypothesis 7 was examined the results indicated that, of participants who were sexually abused as children, there were no sexual-offender versus non-sex offender group differences in physical [ $F(1, 63) = 3.1, p > .05$ ] or emotional abuse [ $F(1, 63) = .4, p > .05$ ].

## Discussion

In one of the first studies of its kind, we found that female prisoners convicted of sexual offenses against children reported more frequent instances of CSA than female prisoners who were not convicted of sexual offenses. Further, in terms of the nature of the CSA history, we found that women in the sexual-offender group experienced CSA for a greater duration of time than women in the non-sex offender group

#### Predictors of sexual abuse perpetration

One of the central results of the current study was that we replicated the observed relationship between CSA and perpetration of abuse with a large sample and quantitative measures. This is notable because

the relatively low base rate of sexual abuse perpetration by women has meant that few studies have been able to obtain such a large sample of female sexual-offenders. The relative lack of research in this area has precluded making strong claims about the relationship between CSA histories and sexual abuse perpetration in women. It has been assumed that the research linking these two variables in men (Aromaki, Lindman, & Eriksson, 2002; Ford & Linney, 1995; Hummel, Thomke, Oldenburger, & Specht, 2000; Rudin, Zalewski, & Bodmer-Turner, 1995; Weeks & Widom, 1998) applies to women as well.

One strength of the current study was the use of the CTQ in order to assess CSA. Specifically, the majority of studies examining the victim-abuser cycle in women assess CSA with a single question. However, some researchers have suggested that the validity of CSA is enhanced if several items inquiring about specific behaviors are included and when items tap both violent and non-violent sexual contact (Hamby & Finkelhor, 2000).

An interesting lack of an effect in the current study was that personality disorder tendencies did not seem to distinguish between sexual and non-sexual offenders. This may, in part, reflect a ceiling effect because criminal behavior in females, in general, may in part be a result of Borderline and Antisocial Personality tendencies. Higher prevalence rates of Antisocial Personality Disorder and Borderline Personality Disorder in the prison system may have decreased the probability of finding significant differences between the two groups. The use of a different comparison group may have yielded a stronger relationship between personality disorder tendencies and perpetration of sexual abuse. Consistent with past research, the results indicated that the experience of CSA was related to personality disorders (Luntz & Widom, 1994; Trull, 2001).

#### *Nature of the abuse*

Another interesting finding from the current study is that duration of abuse appeared to be a much stronger predictor of sex-offending than the experience of abuse alone. Although duration of sexual abuse has been hypothesized as an important factor in predicting later perpetration of sexual abuse (Garland & Dougher, 1990), few studies have explored whether sexual-offenders suffered longer periods of sexual abuse than non-sex offenders with abuse histories, especially in a female sample. That duration of abuse would be a risk factor for perpetration of such crimes in adulthood makes sense in the context of Social Learning Theory (Bandura, 1973). Specifically, it stands to reason that the greater exposure a child has to such acts of violence, the more likely they are to view sexual relationships with children as “normal” and to model these actions when the opportunity presents itself. Based on the current findings, it is imperative that clinicians and other mental health workers are aware of the effects of long-standing CSA. Thus, in the service of identifying the problem early and preventing the more severe outcomes associated with repeated sexual abuse incidents, clinicians need to continue to inquire about abuse when working with children as well as work with the proper authorities to ensure a safe environment for the children if the child is experiencing abuse.

#### *Limitations*

The methods used in the current study pose some problems that could be addressed further in future research. For instance, limiting our sample to a prison population may have presented certain difficulties. First, the reading comprehension of the participants may have caused problems with understanding the items presented in the questionnaires. Some of the questionnaires were not completed, and many partic-

participants asked questions during the testing about words and their meanings. Another potential difficulty with using a prison sample is that the results may not be generalizable to all female sexual-offenders. For instance, female sexual-offenders in prison who have been arrested may have failed to escape detection from the criminal justice system because their crimes were especially severe or of long duration. Therefore, one might expect more severe problems with personality pathology and a history of sexual abuse as well.

Another concern is the extent to which the participants responded in a truthful fashion to study questionnaires. Concerns with socially desirable response sets could be especially serious in studies such as ours that ask participants to answer questions that can be extremely painful or embarrassing. However, the fact that the self-report measure of perpetration of sexual abuse used in our study appeared to be related to more objective indices of perpetration of sexual abuse (such as membership in the sexual-offenders program and official prison documents summarizing the nature of the participant's current conviction) suggests that participants generally did not minimize their reports of the crimes they committed.

### Conclusions

More research is needed on mechanisms for the relationship between CSA and perpetration of sexual abuse among women. Research should also examine moderators of this relationship such as social support, coping skills, and involvement in early-intervention programs. Further, our results suggest that more attention should be paid to duration of CSA in future sexual abuse perpetration research. In terms of public policy decisions, our findings with respect to duration of CSA also signal the importance of early intervention programs in the service of preventing women from reliving their abuse through other innocent victims.

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