Sexual Revictimization: The Role of Sexual Self-Esteem and Dysfunctional Sexual Behaviors

Lisa K. Van Bruggen
Marsha G. Runtz
Helena Kadlec
University of Victoria

Disproportionately high rates of sexual revictimization have been noted among former victims of child sexual abuse (CSA), yet researchers have yet to determine the source of this apparent vulnerability to reexperience sexual violence. This study explores this issue by examining sexual self-esteem, sexual concerns, and sexual behaviors among 402 university women. Compared to women without a history of CSA (n = 348), women with a history of CSA (n = 54) had lower sexual self-esteem, poorer sexual adjustment, and were 2 times more likely to have experienced sexual assault since the age of 14 years. Structural equation modeling indicated that the relationship between child abuse (i.e., CSA and child psychological maltreatment) and sexual revictimization was partially mediated by sexual self-esteem, sexual concerns, and high-risk sexual behaviors. This study emphasizes the need for further research on child maltreatment, revictimization, and women's sexual adjustment.

Keywords: *child abuse; sexual revictimization; sexual self-esteem; sexual behavior*

Sexual revictimization refers to the recurrence of sexual assault across different developmental periods of the lifespan (e.g., as a child and as an adult; Davis, Combs-Lane, & Jackson, 2002). Empirical research has revealed that approximately 15% of college or university women have experienced sexual assault since age 14 years (Koss, Gidycz, & Wisniewski, 1987; Rozee & Koss, 2001). Given that 20% to 30% of university women also report a history of child sexual abuse (CSA; Mayall & Gold, 1995; Roche, Runtz, & Hunter, 1999), it is likely that there is some overlap between these two groups of women who have been victimized. In fact, a connection between sexual abuse during childhood and later sexual assault during adolescence or adulthood has been substantiated by an increasing number of researchers.

Rates of sexual revictimization tend to range from between 15% and 72% (Briere & Elliott, 2003; Briere & Runtz, 1988b; Classen, Gronskaya-Palesh, & Aggarwal, 2005; Gold, Sinclair, & Balge, 1999; Irwin, 1999; Kessler & Bieschke, 1999; Krahe, Scheinberger-Olwig, Waizenhoeffer, & Kolpin, 1999; Messman & Long, 1996). Messman-Moore and Brown (2004) found that women with a history of CSA were almost twice as likely to experience rape as women without a history of CSA (while controlling for child physical and emotional abuse and family functioning). Classen et al. (2005), in their review of revictimization literature, cited more than 30 studies showing that CSA is a risk factor for adult sexual assault. Similarly, Roodman and Clum (2001), in their meta-analytic review of revictimization rates, demonstrated that the relationship between CSA and adult sexual assault is quite robust (e.g., having a moderate effect size of .59).

Risk Factors for Revictimization

Although the phenomenon of sexual revictimization has been well documented, the factors that

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contribute to this risk are not fully understood. A variety of explanations have been put forth to explain why women with a history of CSA might be at increased risk for later sexual assault. However, variables such as attributional style, coping patterns, attachment style, parental support and caring, and dissociation do not appear to adequately explain the apparent vulnerability to revictimization of survivors of CSA (Irwin, 1999; Jankowski, Leitenberg, Henning, & Coffey, 2002; Kessler & Bieschke, 1999; Mayall & Gold, 1995; Runtz, 1987). Although alcohol and substance use have been shown to be situational risk factors for sexual assault, they do not appear to mediate the relationship between CSA and sexual revictimization (Breitenbecher, 2001; Merrill et al., 1999; Messman-Moore & Long, 2002). However, characteristics of the CSA experience itself, such as abuse severity (Mayall & Gold, 1995; Roodman & Clum, 2001), use of force (Koverola, Proulx, Battle, & Hanna, 1996), duration of abuse (Arata, 2000), intrafamilial sexual abuse (Kessler & Bieschke, 1999), and adolescent and adult sexual behaviors (Messman-Moore & Long, 2003) have been found to increase the risk of sexual revictimization.

Child sexual abuse and high-risk sexual behavior. There is increasing evidence that women with a history of CSA are more likely to engage in risky or dysfunctional sexual behaviors in comparison to women without a history of CSA (Browning & Laumann, 1997; Fergusson, Horwood, & Lynskey, 1997) and that these behaviors might contribute to a vulnerability to further victimization. Although the judgment of what constitutes *dysfunctional sexual behaviors* is somewhat subjective, one definition that has been used is "sexual behavior that is indiscriminant, or has a potential for self-harm, or is inappropriate in its use to accomplish nonsexual goals" (Briere, 1995, p. 2). Examples of risk-related sexual behaviors that have been found more frequently among women with a history of CSA include early engagement in consensual sexual activity, unprotected sexual intercourse, and higher numbers of casual sexual partners (Browning & Laumann, 1997; Fergusson et al., 1997; Hillis, Anda, Felitti, & Marchbanks, 2001). These types of behaviors, although being potentially harmful in their own right (e.g., increasing the risk of teenage pregnancies and sexually transmitted infections), may also place women in situations involving a greater risk of physical danger. For example, researchers have demonstrated that having a larger number of consensual sexual partners increases the risk of revictimization in women with a history of CSA (Krahe et al., 1999; Mayall & Gold, 1995; Merrill et al., 1999). Indeed, in their review of revictimization studies, Messman-Moore and Long (2003) found that sexual behavior was the only factor that consistently predicted sexual revictimization in women with a history of CSA.

Traumatic Sexualization and Stigmatization

A useful theoretical framework for understanding the relationship between high-risk sexual behavior and later revictimization in women who have been sexually abused is Finkelhor and Browne's (1985) traumagenic dynamics model. Within this model, Finkelhor and Browne identified the concept of *traumatic sexualization*, which "refers to a process in which a child's sexuality, including both sexual feelings and sexual attitudes, is shaped in a developmentally inappropriate and interpersonally dysfunctional fashion as a result of sexual abuse" (p. 531). For example, a perpetrator may offer gifts or privileges in exchange for sexual contact with a child or capitalize on feelings of guilt, shame, and fear to gain compliance. In addition, as sexual contact between a child and adult is likely the first introduction to adult sexuality a child who is abused, such sexual contact may lay a "sexual script" for the child, on which future sexual experiences are then assimilated (Browning & Laumann, 1997, p. 557). As a result of sexual abuse, the child may experience conflicted and distressing emotions that may affect his or her developing sexual self-concept and ultimately influence his or her sexual activity in the future (Finkelhor & Browne).

Another traumagenic dynamic identified in Finkelhor and Browne's (1985) model is *stigmatization*, which reflects the "badness, shame, and guilt" that might become incorporated into the self-image of a survivor of CSA as a result of the abuse (p. 532). For a woman who has experienced CSA, stigmatization may affect her self-esteem and, perhaps, result in vulnerability to shame and guilt associated with her sexuality. In addition, stigmatization may alter the sense of her own value and self-worth.

Briere (1992) suggested that a premature introduction to sex (as occurs with CSA) may lead to an increased interest in and preoccupation with sex at a young age. For instance, women with a history of CSA may have learned at a young age that one way to gain interpersonal closeness is through sexual availability (Briere & Runtz, 1993). As well, another reason for increased sexual activity among some survivors of CSA might be that sex is used for distraction, or for avoiding the feelings of emptiness that may result from CSA (Briere, 1992; Briere & Runtz, 1993).

Other Forms of Childhood Maltreatment and Revictimization

Although the link between CSA and later dysfunctional sexual behaviors and attitudes has been dem-

onstrated, an association between other forms of child maltreatment and sexual factors that may contribute to a risk for revictimization has not yet been firmly established. For example, although Meston, Heiman, and Trapnell (1999) found that a history of CSA was related to frequency of sexual intercourse, unrestricted sexual behaviors, and liberal sexual attitudes among university women, a history of child physical abuse (CPA), emotional abuse, and neglect were not related to these sexual attitudes and behaviors. Similarly, Briere and Elliott (2003) found that a history of CSA (but not CPA) in women was associated with greater sexual concerns and dysfunctional sexual behaviors on the Trauma Symptom Inventory.

Child physical maltreatment. Although a history of CPA does not appear to be related to sexual behaviors and attitudes, CPA has been found to be associated with interpersonal aggression (Briere & Runtz, 1990), and to low self-esteem and depressive symptomatology (Toth, Manly, & Cicchetti, 1992). This suggests that a history of CPA could serve as a general risk factor for women in relation to sexual assault during adolescence or adulthood whereas CSA may influence revictimization through traumatic sexualization. Overall, researchers who have examined the relationship between CPA and sexual assault have found mixed results. Cloitre, Tardiff, Marzuk, Leon, and Portera (1996) found that a history of CSA and CPA was more predictive, than CSA alone, of sexual assault in a sample of female inpatients. While Arata and Lindman (2002) determined that CPA was a risk factor for adult sexual assault, Messman-Moore and Brown (2004) found that CPA was not associated with rape in adulthood. Similarly, Merrill et al. (1999) found that CPA (while controlling for CSA) did not predict sexual assault, yet victims of CSA (while controlling for CPA) were 5 times more likely to experience sexual assault in comparison to women without a history of CSA.

Child psychological maltreatment. Relatively few researchers have examined the potential role of child psychological maltreatment (CPM) in contributing to sexual revictimization. Messman-Moore and Brown (2004), however, found that CSA and child emotional abuse were significant predictors of rape in adult women. In addition, they determined that experiencing multiple forms of child abuse (sexual, physical, and emotional) dramatically increased the risk of rape in adulthood. Similarly, Stermac, Reist, Addison, and Millar (2002) found that women with a history of forceful sexual assault were more likely to report CPM by their mothers, compared to women with no sexual assault history or sexual assault involving only coercion. Although the mechanism by which CPM contributes to vulnerability to sexual revictimization has not yet been clarified, CPM has been found to be associated with later low self-esteem (Briere & Runtz, 1990; Gross & Keller, 1992), interpersonal sensitivity (Briere & Runtz, 1988a), dissociation and depression (Briere & Runtz, 1988a; Ferguson & Dacey, 1997), anxiety (Ferguson & Dacey, 1997), insecure attachment and relationship difficulties (Sengsouvanh, 2003), personality disorders (Johnson et al., 2001), and trauma symptoms (Demaré, 1996; Higgins & McCabe, 2000). In fact, it appears that psychological maltreatment may even be a stronger predictor of later psychological difficulties than are some other forms of childhood abuse, for example, physical abuse (Gross & Keller, 1992; Higgins & McCabe, 2000). These psychosocial difficulties may, in turn, influence women's vulnerability within relationships, wherein a significant proportion of sexual victimization experiences occur.

Given the link between CPA and CPM and self-esteem, it is possible that these forms of maltreatment might also be related to lower *sexual self-esteem* (i.e., the subjective appraisal of one's sexual thoughts, feelings, and behaviors; Zeanah & Schwarz, 1996). For some women, low sexual self-esteem may be related to problems in sexual adjustment, engagement in higher risk sexual behaviors, and ultimately to a greater risk of sexual revictimization. However, this is only conjecture as such roles that CPA and CPM might play in revictimization have yet to be fully determined.

Interrelationship Among Child Sexual, Physical, and Psychological Maltreatment

It is important to note that the different forms of child maltreatment tend to co-occur. In their review of studies that examined multiple forms of child maltreatment, Higgins and McCabe (2001) concluded that different types of child maltreatment are strongly intercorrelated, especially physical and psychological abuse and, to a lesser extent, sexual abuse and other forms of child maltreatment. For example, Briere and Runtz (1988a) found a correlation of .56 between CPA and CPM in young women and Bagley, Wood, and Young (1994) reported a correlation of .41 between CSA and a composite variable of child emotional and physical abuse in young adult men. Similarly, Runtz and Roche (1999) found that almost one fourth of their sample of women with a history of child abuse had experienced CSA and CPA. Because of the overlap among the various types of child maltreatment, it is important that researchers not limit their

examinations to only CSA but that they also explore the potential influence of CPA and CPM when examining sexual revictimization.

Purpose of the Current Study

In summary, researchers have demonstrated that experiencing CSA may have a negative effect on sexual attitudes and behaviors in adolescence and adulthood (e.g., resulting in frequent casual sexual partners), which may place women, in particular, in jeopardy of experiencing sexual assault. Therefore, a greater understanding of how women's sexual adjustment and sexual behavior may have been affected by previous sexual abuse might help us to understand why it is that women with a history of CSA appear to be particularly vulnerable to sexual revictimization. In addition, because CSA has been found to co-occur with other forms of child maltreatment, it is important to examine the effects of multiple forms of maltreatment on sexual revictimization. To that end, the current study explored the relationships between experiences of child maltreatment (CSA, CPA, and CPM) and later sexual assault among young adult university women. Associations among sexual self-esteem, sexual concerns, and dysfunctional and uncommitted sexual behaviors were evaluated to determine their contributions to the potential link between child maltreatment and later sexual assault.

Hypotheses

Compared to women without a history of CSA, it was expected that women with a history of CSA would have lower sexual self-esteem scores on all five subscales of the Sexual Self-Esteem Inventory for Women (SSEI-W; Zeanah & Schwarz, 1996), indicating poorer sexual self-esteem. It was also expected that a history of CPA and CPM would each be related to lower sexual self-esteem scores on all five subscales.

Compared to women without a history of CSA, it was expected that women with a history of CSA would be more likely to report greater sexual concerns and higher levels of dysfunctional sexual behaviors on the Trauma Symptom Inventory (TSI; Briere, 1995), and greater uncommitted sexual behaviors on the Sociosexual Orientation Inventory (SOI; Simpson & Gangestad, 1991). However, CPA was expected to be unrelated to sexual concerns, dysfunctional sexual behaviors, or uncommitted sexual behaviors. Because of the relative lack of research in the area, examinations of the potential link between CPM and sexual concerns, dysfunctional sexual behaviors, and uncommitted sexual behaviors were exploratory in nature.

Compared to women without a history of CSA, it was expected that women with a history of CSA would be more likely to experience sexual assault since age 14 years (i.e., sexual revictimization) and to have had more-severe sexual assault experiences (e.g., rape) than women without a history of CSA. It was also expected that CPA and CPM would be related to later sexual assault and to more severe sexual assault experiences.

Structural equation modeling was used to test the hypothesis that the relationship between child maltreatment and sexual assault would be mediated by sexual self-esteem, sexual concerns, and sexual behaviors (see Figure 1).

METHOD

Participants and Procedure

Research participants were 402 women enrolled at a medium-size western Canadian university. Of eligible female students in the first-year Introductory Psychology course, 40% participated in the study. All participants received course bonus points for their involvement in the study. Participation involved the completion of a 13-page pencil-and-paper questionnaire in groups of about 15 to 20 and took between 30 and 45 minutes to complete. Participants were informed that the study would include questions that were "personal in nature," that their responses were confidential and anonymous, and that they were free to discontinue the study (or leave questions blank) without losing their bonus points. None withdrew from the study.

Participants ranged in age from 17 to 43 years, with a median age of 19.0 years ($SD = 2.6$; 98% were age 25 years or younger). Most were not married (97%), were of European descent (84%),[1] and spoke English as their first language (89%). Of the participants' mothers and fathers, 72% had at least a postsecondary education, and 63% of the participants' parents had an annual gross income of at least $60,000 Canadian (approximately U.S. $50,000).

Participants in the two main groups of interest (i.e., CSA and no CSA history) were classified according to their responses on the child maltreatment measures (see below). Women with a history of CSA ($n = 54$) differed from women without a history of CSA ($n = 348$) on the following demographic variables: age (CSA: $M = 21$ years; no CSA: $M = 19$ years; $t[394] = -4.67$, $p < .01$) and marital status (married, living common law, or previously married: CSA: 11%; no CSA: 2%; $\chi^2(3) = 17.9$, $p < .01$).[2] Women in the two groups did not differ

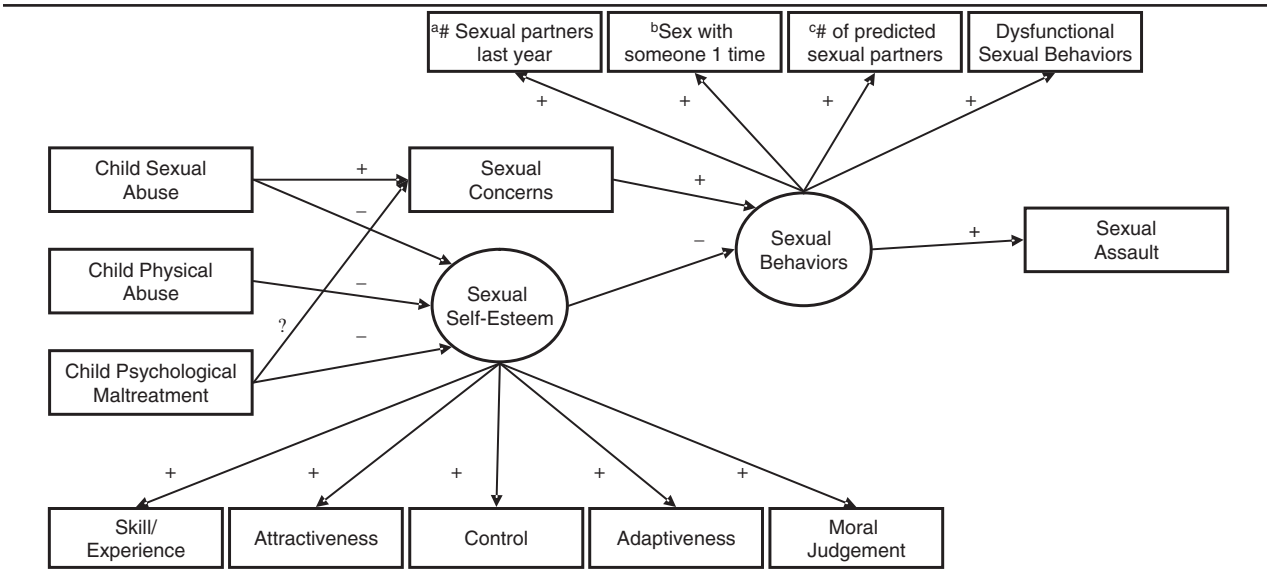

FIGURE 1: Path Diagram of the Hypothesized Model of the Mediation of Child Maltreatment and Sexual Assault By Sexual Self-Esteem, Sexual Concerns, and Sexual Behaviors.

NOTE: Plus signs indicate expected positive relationships; minus signs indicate expected negative relationships. Latent variables are represented by circles; measured variables are represented by rectangles.

a. Number of sexual partners in the last year.

b. Number of partners had sex with on one and only one occasion.

c. Number of predicted sexual partners in the next 5 years.

significantly on family income, race, family size, or birth order.

Measures

Child Maltreatment History

Briere's (1992) Childhood Maltreatment Interview Schedule Short Form (CMIS-SF) was used to assess three forms of child maltreatment prior to age 14: CSA, CPA, and CPM. This is in contrast to the original measure, wherein upper age limits of 17 years for CSA and CPA and 16 years for CPM were used.

Of the 402 women in the current study, 13% (n = 54) reported a history of CSA and 14% (n = 55) reported a history of CPA prior to age 14. Most women (77%, n = 309) reported neither CSA nor CPA. Only 1% (n = 3) of the women did not endorse any items on the CPM scale. CSA and CPA were significantly associated with one another ($\chi^2(1) = 13.43$, $p < .01$); 30% (n = 16) of the women who experienced CSA indicated they had also experienced CPA. CPA and CPM were also related, with individuals with a history of CPA experiencing higher levels of psychological maltreatment than those without CPA, $M = 24.05$ ($SD = 11.43$) versus $M = 12.72$ ($SD = 8.60$), $t(397) = -8.64$, $p < .001$. However, CSA and CPM were unrelated, $t(397) = -2.28$, *ns*.

CSA. The CMIS-SF, as modified for the current study, required participants to respond *yes* or *no* to two questions regarding sexual activities that occurred before age 14 years. The first question inquired about nonconsensual sexual experiences that involved being touched in a sexual way, or having to touch the sexual parts of another person's body. The second question asked about nonconsensual sexual experiences involving oral, anal, or vaginal intercourse. Additional questions explored the nature of the sexual experience (e.g., participant's age when the sexual contact occurred, age of the other person, relationship to the other person, and use of physical force). For the purpose of the current study, CSA was defined as sexual contact before age 14 years that involved force or was with someone 5 or more years older than the participant. In addition, a woman was considered to have experienced sexual abuse if she answered affirmatively to the question, "to the best of your knowledge, before age 14, were you ever sexually abused?"

Of the 54 women who met the current study's criteria for CSA, 39% (n = 21) had been sexually abused by a family member: grandfather (11%, n = 6), other male relative (11%, n = 6), unidentified family member (11%, n = 6), and father or stepfather (6%, n = 3). CSA by someone outside of the family occurred among 65% (n = 35) of the CSA survivors, including two women who had also been abused by a family member. Nonfamilial offenders included known adults (e.g., teacher, priest, nanny; 31%, n = 17), boy-

friends or dates (15%, *n* = 8), friends or acquaintances (7%, *n* = 4), other known males younger than age 18 years (e.g., friend's brother; 6%, *n* = 3), and strangers (6%, *n* = 3). Of the 54 survivors of CSA, CSA involving intercourse occurred among 31% (*n* = 17) of the women, and 20% (*n* = 11) of the women indicated that force had been used. Most of the women's CSA experiences (70%, *n* = 38) occurred on three or fewer occasions. The majority of the women (56%, *n* = 30) defined their experience as *sexual abuse*.

CPA. Using the CMIS-SF to measure CPA prior to age 14 years, participants were asked if a parent, stepparent, foster parent, or other adult in charge of them as a child ever did something to them on purpose (e.g., "hit, punch, cut, or push you down") that "made you bleed or gave you bruises or scratches, or that broke bones or teeth." An affirmative response to this question resulted in the case being classified as CPA. Follow-up questions added to the CMIS-SF inquired about the identity of the perpetrator, the frequency of CPA, the victim's age the first and last time it happened, and if medical attention was required.

Among the 55 women who had experienced physical abuse, 48 of the perpetrators were identified as follows: father (44%, *n* = 21), stepfather (4%, *n* = 2), mother (40%, *n* = 19), both parents (8%, *n* = 4), older sibling (2%, *n* = 1), or another adult in charge (2%, *n* = 1). The average frequency of CPA before age 14 years was 5.8 occurrences (*SD* = 6.5, median = 3); none of the women indicated that they had needed medical attention as a result of the CPA. Of the 55 women who met our criteria for CPA, 40% (*n* = 22) defined their experience as physical abuse.

CPM. The psychological maltreatment scale of the CMIS-SF was used to assess CPM. This scale includes seven statements on a 6-point Likert-type scale, ranging from 0 (*never*) to 6 (*20+ times a year*). Participants were asked to rate how often in an average year they experienced certain events by a parent, stepparent, foster parent, or other adult in charge of them as a child; this included items such as, "yell at you," "criticize you," and "ridicule or humiliate you." Briere and Runtz (1988a) found an internal consistency reliability of .87 for the CPM scale. In the current study, an internal consistency of .90 (Cronbach's alpha) was found. In the current sample, the average psychological maltreatment score across the seven items was 14.28 (*SD* = 9.84) with a range from 0 to the maximum score of 42. The most common experience endorsed by participants was being yelled at (e.g., for 28% of participants, this occurred 20 or more times a year).

TABLE 1: Descriptive Statistics for Sexual Self-Esteem, Sexual Concerns, Dysfunctional Sexual Behaviors, and Uncommitted Sexual Behaviors

Indicators	M	SD	*Minimum*	*Median*	*Maximum*	α
SSE[a]: Skill and/or experience	4.12	1.05	1.39	4.17	5.94	.94
SSE: Attractiveness	3.74	.98	1.31	3.82	5.71	.92
SSE: Control	4.48	.93	2.18	4.59	5.94	.91
SSE: Adaptiveness	4.44	.92	2.00	4.47	6.00	.87
SSE: Moral judgment	4.65	.86	1.71	4.79	6.00	.86
TSI: Sexual concerns[b]	6.01	4.50	.00	5.00	24.00	.78
TSI: Dysfunctional sexual behaviors[b]	4.85	4.31	.00	4.00	24.00	.78
# sexual partners last year	1.25	1.34	.00	1.00	10.00	
Sex with someone 1 time[c]	.84	1.79	.00	2.00	18.00	
# of predicted partners[d]	2.66	2.65	.00	.00	30.00	

NOTE: SSE = Sexual self-esteem; TSI = Trauma Symptom Inventory.
a. Higher scores indicate higher sexual self-esteem, with a possible range of 1 to 6.
b. Higher scores indicate poorer sexual adjustment with a possible range on each subscale from 0 to 27.
c. Number of partners had sex with on one and only one occasion.
d. Number of predicted sexual partners in the next 5 years.

Sexual Self-Esteem

Sexual self-esteem, that is, "a woman's affective reactions to her subjective appraisals of her sexual thoughts, feelings, and behaviors", was measured with the SSEI-W (Zeanah & Schwarz, 1996, p. 3). The five subscales of this measure include Skill/Experience (i.e., ability to please, or be pleased by a sexual partner), Attractiveness (i.e., participant's self-perceived attractiveness), Control (i.e., ability to manage one's sexual thoughts, feelings, and interactions), Moral Judgment (i.e., congruence of sexual thoughts, feelings, and behaviors with one's own moral standards), and Adaptiveness (i.e., compatibility of one's sexual experiences or behavior with other personal goals). Evidence supporting the construct validity of the subscales has been reported by Zeanah and Schwarz (1996). Zeanah and Schwarz found each of the five subscales to have high internal consistency, ranging from a Cronbach's alpha of .85 for Moral Judgment to .94 for Attractiveness. The values in the current study were similar (see Table 1).

Sexual Concerns and Dysfunctional and Uncommitted Sexual Behaviors

Two scales from the TSI (Briere, 1995) were used in the current study: Sexual Concerns (SC; e.g., "Wishing you didn't have any sexual feelings"; "Not being satisfied with your sex life") and Dysfunctional Sexual Behaviors (DSB; e.g., "Having sex or being sexual to keep from feeling lonely or sad"; "Using sex to feel powerful or important"). In a validation of the TSI in a university sample, Runtz and Roche (1999) found reliabilities (Cronbach's alpha) of .80 and .81 for the SC and DSB scales, respectively. In the current study, similar internal consistency reliabilities were found (see Table 1).

Three questions from the SOI (Simpson & Gangestad, 1991) were used to assess uncommitted sexual behaviors: the number of sexual partners in the last year, the number of partners that the participant had sex with on one and only one occasion, and the number of predicted sexual partners in the next 5 years (see Table 1). Evidence supporting convergent and discriminant validity of the SOI is reported by Simpson and Gangestad (1991).

Sexual Assault at Age 14 Years or Older

Sexual assault was measured with the 10-item Sexual Experiences Survey (SES; Koss & Oros, 1982), which assesses unwanted sexual contact, sexual coercion, attempted rape, and rape. In the current study, participants were asked to report unwanted sexual experiences that occurred from age 14 years (inclusive) to the present time, and that they had not already answered about in the child maltreatment section. If a participant endorsed any of the items on the SES, she was then asked additional descriptive questions that were added to the SES (e.g., relationship to the offender). The SES is scored by recording the most severe assault experience identified by the participant (Koss et al., 1987); that is, if a woman responded affirmatively for sexual coercion and rape, her experience was classified as rape. In addition to this dichotomous classification scheme, sexual assault was also coded as a continuous variable to assess for severity of sexual assault experiences. For example, the absence of any sexual assault experiences was coded as 0, unwanted sexual contact was 1, sexual coercion was 2, attempted rape was 3, and rape was 4.

In a sample of female university students (Koss & Gidycz, 1985), the SES had an internal consistency reliability of .74 and a 1-week test-retest reliability of .93; the correlation between reports of sexual assault on the SES and reports made to interviewers several months later was .73. In the current study, the internal consistency reliability (Cronbach's alpha) of the SES was .71.

Of the women in the current study, 36% ($n = 145$) endorsed at least one of the 10 questions on the SES. Regarding the most serious sexual assault that occurred, 28% ($n = 41$) experienced rape, 6% ($n = 9$) experienced attempted rape, 2% ($n = 3$) experienced sexual coercion, and 63% ($n = 92$) experienced unwanted sexual contact. Of the 198 identified perpetrators (some participants indicated two or more assaults), the majority of the unwanted sexual acts were committed by someone that the participant knew: boyfriends or dates (52%, $n = 103$) and friends or acquaintances (36%, $n = 72$) were the most common offenders. Other offenders included strangers (6%, $n = 11$), other known males (e.g., coworker, boss, Internet chat partner; 4%, $n = 7$), teachers (2%, $n = 3$), and nanny (< 1%, $n = 1$). Only one participant indicated being sexually victimized by a woman.

RESULTS[3]

The results are presented in the following order: the relationships between child maltreatment and sexual self-esteem, sexual concerns, and dysfunctional sexual behaviors, and uncommitted sexual behaviors; revictimization findings; and then the structural equation models. MANOVA was used to test for group differences between categorical maltreatment variables (CSA and CPA) and sexual self-esteem, whereas t tests were used for these same variables in relation to sexual concerns and behaviors. Because CPM is a continuous variable, Pearson correlations were used to test the relationships between CPM and all outcome variables. Logistic regression and odds ratios were used to assess the direct relationships between the child maltreatment variables and sexual revictimization, whereas t tests, MANOVAs, and correlations were used to examine the relationships between child maltreatment and the continuous sexual assault severity variable. Structural equation modeling (SEM) was used to test the hypothesis that sexual concerns and behaviors and sexual self-esteem mediate the relationship between child maltreatment and sexual revictimization.

Child Maltreatment and Sexual Self-Esteem

Partial support was found for the first hypothesis as two of the three forms of childhood maltreatment were related to some aspects of poorer sexual self-esteem. A MANOVA with the five sexual self-esteem subscale scores as dependent variables and CSA as the independent variable indicated that CSA was related to sexual self-esteem, $F(5, 385) = 3.13$, $p < .01$. Post hoc

TABLE 2: Means and Standard Deviations of Maltreatment Group Main Effects on Indicators

Scale	*No CSA* (n = *348*) M (SD)	*CSA* (n = *54*) M (SD)	*No CPA* (n = *345*) M (SD)	*CPA* (n = *55*) M (SD)
SSE: Skill and/or experience	4.13 (1.02)	4.02 (1.17)	4.12 (1.04)	4.12 (1.07)
SSE: Attractiveness	3.73 (.97)	3.79 (1.01)	3.77 (.94)	3.49 (1.18)
SSE: Control	4.52* (.89)	4.18* (1.12)	4.48 (.92)	4.47 (.96)
SSE: Adaptiveness	4.48 (.90)	4.20 (1.03)	4.43 (.93)	4.47 (.88)
SSE: Moral judgment	4.71* (.82)	4.29* (1.02)	4.66 (.86)	4.62 (.85)
TSI: Sexual concerns	5.78* (4.28)	7.48* (5.53)	6.09 (4.58)	5.51 (4.02)
TSI: Dysfunctional sexual behaviors	4.70 (4.15)	5.87 (5.16)	4.79 (4.25)	5.29 (4.72)
# sexual partners last year	1.23 (1.36)	1.39 (1.25)	1.24 (1.36)	1.36 (1.22)
Sex with someone 1 time	0.77 (1.75)	1.29 (1.99)	0.79 (1.76)	1.11 (1.92)
# of predicted partners	2.72 (2.69)	2.27 (2.28)	2.70 (2.74)	2.43 (1.94)

NOTE: CSA = child sexual abuse; CPA = child physical abuse; SSE = Sexual self-esteem; TSI = Trauma Symptom Inventory.
*$p < .01$.

TABLE 3: Intercorrelations Among Proposed Indicators

Indicator	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*
1. Child sexual abuse														
2. Child physical abuse	.18*													
3. Child psychological maltreatment	.11	.40*												
4. SSE: Skill and/or experience	–.04	.00	–.23*											
5. SSE: Attractiveness	.02	–.10	–.27*	.53*										
6. SSE: Control	–.13	.00	–.25*	.74*	.40*									
7. SSE: Adaptiveness	–.10	.01	–.21*	.82*	.44*	.78*								
8. SSE: Moral judgment	–.17*	–.02	–.21*	.44*	.25*	.66*	.68*							
9. TSI: Sexual concerns	.13*	–.04	.16*	–.46*	–.22*	–.55*	–.62*	–.57*						
10. TSI: Dysfunctional sexual behaviors	.09	.04	.19*	–.26*	–.23*	–.40*	–.37*	–.36*	.59*					
11. # sexual partners last year	.04	.03	.01	.23*	.02	.08	.13*	.01	.09	.39*				
12. Sex with someone 1 time	.10	.06	.20*	.12	.01	–.01	.02	–.07	.08	.16*	.34*			
13. # of predicted partners	–.06	–.03	.04	–.08	–.12	–.09	–.09	.07	.11	.32*	.42*	.12		
14. Sexual assault after age 14 years	.20*	.12	.18*	.02	–.03	–.17*	–.15*	–.23*	.25*	.31*	.27*	.32*	.02	

NOTE: SSE= Sexual self-esteem; TSI = Trauma Symptom Inventory.
Child sexual abuse and child physical abuse are categorical variables; all other variables are continuous measures. All correlations are Pearson's correlations.
*$p < .01$.

ANOVAs demonstrated that CSA was related to two subscales of the SSEI-W: Moral Judgment, $F(1, 395) = 12.0$, $p < .01$ and Control, $F(1, 393) = 6.53$, $p < .01$. Women with a history of CSA had lower scores on both subscales, indicating lower sexual self-esteem (see Table 2). CSA was not related to the following subscales: Skill/Experience, Attractiveness, or Adaptiveness.

A similar MANOVA using CPA as the independent variable indicated that CPA was not related to the subscales of the SSEI-W, $F(5, 385) = 1.28$, *ns* (see Table 2). An examination of the relationship between CPM and the SSEI-W revealed significant negative correlations between CPM and all five sexual self-esteem subscales (see Table 3).

Sexual Concerns and Dysfunctional and Uncommitted Sexual Behaviors

Sexual concerns. As predicted, women with a history of CSA reported greater sexual concerns on the SC scale compared to those without a history of CSA, $t(397) = –2.6$, $p < .01$. Although CPA was not related to SC scores, CPM was positively correlated with SC (see Tables 2 and 3).

Dysfunctional and uncommitted sexual behaviors. Contrary to our expectations for CSA, neither CSA nor

CPA was related to the DSB scale; however, CPM was positively correlated with DSB. Similarly, neither CSA nor CPA was related to any of the sexual behavior items from the SOI. CPM was correlated with only one of the sexual behavior items: the number of different partners that a woman has had sex with on only one occasion (see Tables 2 and 3).

Child Maltreatment and Sexual Revictimization

A logistic regression was conducted and odds ratios were estimated to determine the presence of increased risk of revictimization in association with the three forms of child maltreatment. The overall model indicated a good fit ($\chi^2(3, N = 399) = 13.34$, $p < .01$) indicating that the groups differed in their risk levels. As expected, odds ratios (OR) revealed that compared to women without a history of CSA, women with a history of CSA were twice as likely to have experienced any type of sexual assault (OR = 2.22, with a 95% confidence interval (CI) = 1.22 - 4.04; Wald = 6.85, $p < .01$). Among the 54 survivors of CSA, 56% ($n = 30$) had experienced a sexual assault after age 14 years, whereas this was the case for only 33% ($n = 115$) of women without a history of CSA. Contrary to our expectations, neither CPA (OR = 1.41, 95% CI: .74 - 2.68; Wald = 1.09, *ns*) nor CPM (OR = 1.01, 95% CI: .99 - 1.04; Wald = 1.53, *ns*) was associated with a higher risk of experiencing sexual assault.

In an examination of the severity of sexual assault experiences (using sexual assault as a continuous variable), women with a history of CSA were more likely than women without a history of CSA to experience more-severe (i.e., more invasive) forms of sexual assault such as rape, $t(400) = -4.10$, $p < .01$. Sexual assault experiences that met the definition of *rape* occurred among 24% ($n = 13$) of the women with a history of CSA, yet for only 9% ($n = 31$) of those women without a history of CSA. The relationship between CSA and sexual assault severity remained significant even after controlling for CPA, $F(1, 399) = 13.42$, $p < .001$, and CPM, $F(1, 396) = 12.20$, $p = .001$.

Although women with a history of CPA initially appeared to experience more-severe sexual assaults compared to women without a history of CPA, $t(400) = -2.50$, $p < .01$, this relationship was no longer significant after controlling for CSA and CPM. Pearson correlations indicated that CPM was related to sexual assault severity ($r = .18$, $p < .01$); this relationship, although weak, remained significant after controlling for CSA ($r = .16$, $p < .01$) and CPA ($r = .14$, $p < .01$).

Structural Equation Model

Data preparation. Data were screened for outliers, univariate skewness, and kurtosis. There were no outliers, although there were some minor violations of the normality of the data (i.e., data were either positively or negatively skewed). A correlation table was generated with all the indicators (see Table 3). This table showed significant correlations between the outcome variable, *sexual assault* (using sexual assault as a continuous variable), and the following predictor variables: CSA, CPM, Control, Adaptiveness, Moral Judgment, Sexual Concerns, Dysfunctional Sexual Behaviors, number of sexual partners last year, and sex with someone on only one occasion. The correlation table showed that there were nonsignificant zero-order correlations between sexual assault and CPA, Skill/Experience, Attractiveness, and number of predicted sexual partners in the next 5 years.

TABLE 4: Fit Indices for Measurement and Structural Equation Models

Model	df	χ^2	χ^2/df	*CFI*	*RMSEA*	Δdf	$\Delta\chi^2$
Initial measurement model	8	99.32*	12.41	.90	.17		
Modified measurement model	4	7.54	1.89	.99	.05	4	91.78*
Structural models							
Model A	23	291.78*	12.69	.77	.17		
Model B	23	95.35*	4.15	.94	.09	0	196.43*
Model C[a]	25	96.45*	3.86	.94	.08	–3	195.33*

NOTE: CFI = Comparative Fit Index; RMSEA = root mean square error of approximation.
a. This is the final model shown in Figure 2.
Smaller chi-square values indicate a greater fit. CFI: values above .90 are very good, and 1 indicates the best possible fit. RMSEA: values below .06 indicative of a very good fitting model.
*$p < .001$.

Structural equation modeling. A measurement model was tested based on the findings from the correlation table. As previously mentioned, there were some predictor variables that were not significantly related to sexual assault. The measurement model thus excluded the indicators *Skill/Experience*, *Attractiveness*, and *number of predicted sexual partners*. All parameter estimates for path loadings in the initial measurement model were significant at $p < .01$, except for the loading from Sexual Behaviors to number of sexual partners in the past year, $p = .67$. A modified measurement model that eliminated the number of sexual partners in the past year from the latent variable *Sexual Behaviors* was found to be a better fitting model (see Table 4).

The structural model, based on Figure 1, was tested next. The initial structural model, *Model A*, included

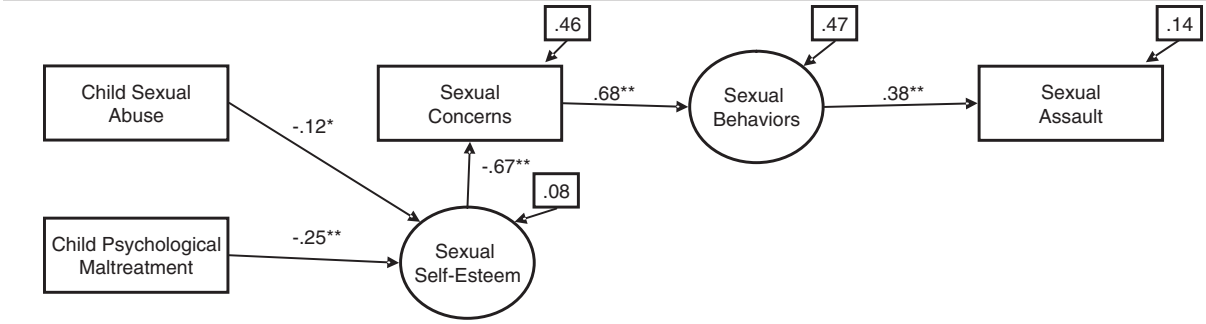

FIGURE 2: Final Mediational Model of Child Maltreatment With Standardized Estimates and Squared Multiple Correlations (in the Squares).

NOTE: $\chi^2(25) = 96.45$, $p < .001$; $\chi^2/df = 3.86$; Comparative Fit Index = .94; root mean square error of approximation = .08.
*$p = .05$. **$p < .01$.

the following indicators: the measured variables of CSA and CPM (CPA was dropped as it was not related to sexual assault); Sexual Self-Esteem, a latent variable with three indicators (Control, Adaptiveness, and Moral Judgment); the measured variable of Sexual Concerns; Sexual Behaviors, a latent variable with two indicators (number of partners she had sex with on only one occasion and the Dysfunctional Sexual Behaviors scale); and the measured variable of sexual assault. This model did not provide a reasonable fit to the data (see Table 4). Consequently, post hoc modifications were performed in an attempt to develop a better fitting model.

Modification indices in Model A indicated that allowing Sexual Self-Esteem to predict Sexual Concerns as a free parameter would result in a better fitting model. In addition, eliminating a nonsignificant path, from Sexual Self-Esteem to Sexual Behaviors ($SE = .02$, $p = .14$), would also result in a better fitting model. Therefore, a second directional path was added to the model, going from Sexual Self-Esteem to Sexual Concerns, and the nonsignificant path was dropped (Model B). Although the fit indices indicated that this was a better fitting model compared to Model A (see Table 4) there were two nonsignificant pathways, from CPM to Sexual Concerns ($SE = .02$, $p = .51$), and from CSA to Sexual Concerns ($SE = .51$, $p = .39$). All other paths were significant at $p < .01$ or $p < .05$. A final modification to the model (Model C) involved the elimination of the nonsignificant directional paths from CPM and CSA to Sexual Concerns. We reestimated the model and found that all the path loadings were significant at $p < .01$ or $p < .05$. Therefore, Model C was the final model tested. The structural portion of the model is presented in Figure 2 with standardized estimates and squared multiple correlations. Although the chi-square remained significant, there was a significant improvement in fit for Model C over Model A. The final model can be said to fit adequately even with the significant chi-square results, given that a statistically significant chi-square can occur even when there are only small differences between groups' factor patterns and because the chi-square test is sensitive to non-normality (Hoyle & Panter, 1995; Hu & Bentler, 1995). For the final model the indicators loaded in the expected direction. This model estimated that CSA, CPM, sexual concerns, sexual self-esteem, and sexual behaviors explained 14% of the variance in sexual assault ($R^2 = .14$).

DISCUSSION

The current study substantiates previous findings that have determined that an association exists between experiences of CSA and later sexual assault in women. This research demonstrates that CPM is also associated with the severity of sexual assault experiences in adolescence and early adulthood. Although it was expected that a history of CPA would be related to later sexual assault, this is not the case within this sample.

The finding that women with a history of CSA are two times more likely to be sexually revictimized, when compared to women without a history of CSA, supports and extends prior research in this area (e.g., Messman & Long, 1996). In the current study, more than one half (56%) of the women with a history of CSA have also been sexually assaulted, with almost one fourth of them (24%) having experienced rape. Furthermore, ours is one of the few published studies to examine the role of CPM and its relationship to later sexual assault, signifying the importance of including this form of child maltreatment in studies of sexual revictimization.

The main focus of the current study was the exploration of the relationships among the three forms of child maltreatment (i.e., sexual, physical, and psychological abuse) and various aspects of sexual attitudes and behaviors, and to examine, using a path analysis, the roles of sexual self-esteem, sexual concerns, and dysfunctional and uncommitted sexual behaviors as potential contributors to sexual revictimization.

In the examination of the relationships between CSA and sexual attitudes and behaviors, women with a history of CSA evidenced more difficulty managing their sexual thoughts, feelings, and interactions, and they reported greater incongruence between their sexual thoughts and behaviors, and their moral standards. In addition, consistent with past research (e.g., Briere & Elliott, 2003; Runtz & Roche, 1999), women with a history of CSA report greater sexual concerns than women without a history of CSA. These results indicate that women who have experienced CSA tend to be less comfortable with their sexuality and their sexual behaviors and are less satisfied with their ability to manage their sexual relationships compared to women without a history of CSA. However, contrary to our expectations, women with a history of CSA do not indicate higher levels of dysfunctional or uncommitted sexual behaviors when compared to women without a history of CSA. This is not as we expected, as other researchers have found an association among these variables (e.g., Runtz & Roche, 1999).

An important finding from the current study is that CPM is associated with women's sexual attitudes and behaviors. Regarding sexual self-esteem, higher levels of CPM are associated with feeling unattractive; having more difficulty managing sexual thoughts, feelings, and interactions; experiencing greater incongruence between moral standards and sexual thoughts and behaviors; incompatibility of sexual experiences or behavior with other personal goals; and a self-perception of being less able to please or be pleased by a sexual partner. In addition, higher levels of CPM are associated with greater sexual concerns and dysfunctional sexual behaviors, and a higher number of casual sexual partners.

A history of CPA is not related to any of the measures of sexual attitudes and behaviors in the current sample. Although women with a history of CPA initially appeared to experience more severe sexual assaults, this relationship is no longer significant when either sexual abuse or psychological maltreatment is taken into account. This is consistent with other reports in the literature of a lack of an association between physical abuse and later sexual assault (e.g., Merrill et al., 1999; Messman-Moore & Brown, 2004). Given that CPA and CPM often occur together in the current sample, it may be that the verbal messages that tend to accompany physical abuse (e.g., criticism and insults) are more likely than the actual physical abuse itself to negatively influence the development of healthy sexual attitudes and behaviors. It is also possible that the current sample included relatively less severe examples of physical abuse and that the relationship to revictimization might appear in samples with a greater range of severity of abuse experiences.

In our best fitting structural equation model for this data, 14% of the variance in sexual assault was accounted for when CSA and psychological maltreatment are entered simultaneously into the model, along with the mediating variables of sexual self-esteem, sexual concerns, and sexual behaviors. This indicates that for some young women (i.e., those with histories of either CSA or psychological maltreatment), low sexual self-esteem, higher levels of sexual concerns, and engagement in dysfunctional and uncommitted sexual behaviors may partially explain their greater vulnerability to later sexual assault. Of interest is that the combination of CSA and psychological maltreatment provides an important contribution to the final model. Although some women who experience CSA also experience psychological maltreatment (thus appearing to provide support for theories of the deleterious effect of cumulative trauma), the correlation between CSA and CPM is nonsignificant, indicating that the final model reflects risk factors for women who experience either type of child maltreatment (rather than cumulative trauma). This is an important finding as it demonstrates the need to extend research beyond examining only the relationship between CSA and sexual revictimization, and to move toward examining a larger range of child maltreatment variables with later negative outcomes such as sexual assault.

The current study also provides partial support for the importance of two of Finkelhor and Browne's (1985) traumagenic dynamics (i.e., traumatic sexualization and stigmatization) in relation to revictimization. Consistent with traumatic sexualization (i.e., developmentally inappropriate and interpersonally dysfunctional sexual behaviors) and stigmatization (i.e., feelings of guilt and shame in relation to abuse), we found that women with a history of CSA report greater sexual concerns and lower sexual self-esteem in two particular areas—control and moral judgment. Women in the current study with a history of CSA did not, however, evidence greater dysfunctional or high-risk sexual behaviors. It is also apparent that difficulties with sexual self-esteem and other related concerns are not exclusively linked to sexual abuse expe-

riences. In fact, having a history of psychological maltreatment is associated with more of the sexuality-related variables than is CSA. This suggests that there may be a more-generalized abuse-related process underlying the development of sexual difficulties in these areas that is not exclusively associated with sexual trauma. For example, women who experience psychological maltreatment may feel a particular sense of powerlessness, especially in their relationships with others (Finkelhor & Browne). Powerlessness might contribute to a risk of later sexual assault if one's sense of self-efficacy is continually contravened, potentially resulting in lower self-esteem (in particular, sexual self-esteem).

Women who experience CSA or psychological maltreatment may feel uneasy regarding the role of sex and sexuality in their interpersonal relationships (e.g., uncertainty about sexual norms, sexualizing interpersonal relationships, and misconceptions about the role of sex in interpersonal relationships), and having negative feelings associated with their sexuality. This suggests that sexual self-esteem may be appropriately considered as one component of self-esteem that is vulnerable to a variety of interpersonal traumas early in life. Our findings are consistent with research that demonstrates that women who have experienced either sexual or psychological maltreatment in childhood may be more likely to suffer from lower self-esteem as young adults (Briere & Runtz, 1990; Finkelhor & Browne; Gross & Keller, 1992). The current study also emphasizes the continued importance of exploring the role that sexual self-esteem and other aspects of sexuality may have in the relationship between women's early experiences of child maltreatment and their vulnerability to later sexual assault.

There is a distinct need for additional research examining the relationship between CPM and sexual assault in adulthood, as this form of maltreatment has been vastly understudied. Psychological maltreatment is a pervasive problem, with approximately 15% of all individuals experiencing severe and chronic psychological maltreatment during childhood (Hart, Brassard, Binggeli, & Davidson, 2002). We now know that psychological maltreatment in childhood is associated with a variety of psychological and social difficulties such as interpersonal sensitivity, depression, anxiety, and dissociation (Briere & Runtz, 1988a, 1990; Kent & Waller, 1998), as well as low self-esteem (Gross & Keller, 1992). As a result, future examinations of sexual assault risk factors and sexual revictimization should take into account the potential influence of CPM and related childhood experiences such as emotional and physical neglect, exposure to parental partner violence, or being raised with parents who abuse substances.

There are some unexpected findings from the current study that should be noted. Whether they have a history of CSA or not, women show similar levels of dysfunctional sexual behaviors and uncommitted sexual behaviors. This finding is somewhat surprising, as prior research has demonstrated support for a relationship between CSA and the Dysfunctional Sexual Behavior scale of the TSI (e.g., Briere & Elliott, 2003; Runtz & Roche, 1999) and between CSA and higher numbers of consensual sexual partners (e.g., Krahe et al., 1999). One possible reason why this difference did not emerge in the current study may be related to the youthful age of the participants, and hence, their relative inexperience in sexual and dating relationships compared to the somewhat older participants examined in other studies. In addition, our definition of *CSA* is sexual contact occurring before age 14 years, and as such, the percentage of women who meet our criteria for CSA was lower than that found in other studies that used higher age limits (e.g., Runtz & Roche, 1999). It is interesting to note, although CSA was not directly related to specific high-risk sexual behaviors in the current study, it is the case that the number of casual sexual partners that a woman has had, the number of sexual partners she had in the previous year, and her endorsement of dysfunctional sexual behaviors are all related to sexual assault. This is a noteworthy result as it supports the idea that sexual assault may be more likely to be related to proximal factors such as sexual behaviors, and less directly linked to distal factors, such as child maltreatment. Instead, CSA appears to influence sexual behaviors (and ultimately, sexual revictimization) indirectly through a pathway to poor sexual self-esteem, which is then linked to greater sexual concerns, which then influences risky and dysfunctional sexual behaviors.

Limitations

Caution is needed in interpreting results from any SEM, as SEM can lead to competing models that offer equally acceptable accounts of the association among the variables (Hoyle & Panter, 1995). For instance, although the model examined in the current study indicates a significant pathway from sexual concerns to sexual behaviors, the reverse situation might also be plausible; that is, characteristics of women's sexual behaviors, positive (e.g., consensual and pleasant sexual experiences) and potentially negative (e.g., frequent casual sexual partners), are likely to influence the development of sexual concerns (albeit in opposite directions). Similarly, an experience of sexual assault might lead to poorer sexual self-esteem,

greater sexual concerns, and a change in sexual behaviors. Last, when making post hoc model modifications in SEM, it is important to note that such modifications are based on empirical modification indices and as such, are not necessarily theory driven (Hoyle & Panter, 1995).

Although the results of the current study provide an important contribution to the current literature in this area, there are drawbacks associated with using a university sample, such as limitations to the generalizability of the findings. For instance, studies of university students might underestimate the relationship between child maltreatment and later sexual assault because of the young age of the respondents; this provides for a relatively brief amount of time for revictimization to have occurred. Similarly, the effect sizes associated with correlations between CSA and revictimization within university samples tend to range from small (as found in the current study) to moderate (Arata, 2002; Roodman & Clum, 2001). In part, this may be because of the predominance of less severe forms of CSA within university populations and greater access to resources to promote recovery among these types of participants. Therefore, studies that use students to examine the phenomenon of revictimization would be complemented by additional studies that use community samples with older and more varied participants. On the other hand, student-based studies of sexual assault are highly relevant because of the fact that women on campuses are at particular risk for sexual assault (M. D. Schwartz & DeKeseredy, 1997).

Another limitation of the current study is the relative lack of cultural diversity in the sample. The participants in the current study were predominantly European-Canadian women (although this is fairly representative of the local population), and therefore the results should not be generalized to women with diverse racial and cultural backgrounds. Furthermore, the sample consisted only of women, which means that any conclusions drawn in the current study are relevant only for women. This is, however, consistent with the majority of the published literature on revictimization that has focused primarily on women's experiences (Arata, 2002).

Suggestions for Additional Research and Clinical Implications

The findings of the current study have important implications for research and clinical practice. Given that sexual revictimization is a complex problem that likely has multiple causal factors (Arata, 2002), researchers should endeavor to employ ecological models (that emphasize a wide range of factors involved in resilience or vulnerability) to help further understand the multiple pathways by which early maltreatment experiences may contribute to risk of sexual assault in adulthood (Grauerholz, 2000). Our results also illustrate the need for increased prevention efforts aimed at educating young women about the risk factors that may contribute to sexual victimization. Such prevention strategies would ideally begin when girls are entering their adolescent years, as research suggests that an increased risk of sexual assault occurs in early adolescence (Humphrey & White, 2000; C. Schwartz, 2003). Prevention efforts may also be particularly important for female adolescents who have already experienced child maltreatment or sexual assault, and those who are exhibiting high-risk sexual behaviors. Prevention strategies may include assertiveness training (Classen, Field, Koopman, Nevill-Manning, & Spiegel, 2001), identifying high-risk interpersonal situations, focusing on self-protection (e.g., increasing physical defense skills), and developing problem-solving and communication skills around making sexual decisions (Marx, Calhoun, Wilson, & Meyerson, 2001; Yeater & O'Donohue, 1999). Women may also benefit from information on how the psychological effects of childhood victimization (e.g., feelings of self-blame and guilt) may influence their sexual self-esteem and self-protective behaviors, thereby putting them at a higher risk for revictimization. Last, it is important to inform women that although it is imperative that they arm themselves with knowledge and skills, that it is the presence of an opportunistic perpetrator who is ultimately responsible for any sexual victimization a woman may experience. Although preventative efforts should target all adolescent girls and young women, sexual assault prevention programs, in general, also need to be aimed toward young men so as to educate them in the development of appropriate and respectful sexual and relationship behaviors with young women.

NOTES

1. Participants' ethnicity: 84% (n = 331) European-Canadian/White; 11.4% (n = 45) Asian; less than 1% (n = 2) African Canadian/Black; and 4% (n = 16) Other (e.g., Aboriginal, East Indian, and Latino).

2. When using age as a covariate, it was found that CSA continued to have a significant relationship with sexual assault, $F(1, 393) = 10.58$, $p < .01$. Similar results were found when using marital status as a covariate, $F(2, 395) = 18.17$, $p < .01$. These findings indicate that although age and marital status are associated with CSA in the current sample, they do not appear to play a significant role in the relationship between CSA and sexual assault.

3. To guard against Type I error due to multiple tests, an adjusted alpha of .01 was used for all analyses.

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Lisa K. Van Bruggen completed her BA (Hons.) at Queen's University in Kingston, Ontario, Canada, and her MA in clinical psychology at the University of Victoria in British Columbia, Canada. She is currently doing her PhD in the Clinical Life-Span Psychology program at the University of Victoria. Her research centers on trauma-related symptoms in relation to interpersonal and noninterpersonal traumatic events for men and women, women's experiences with various forms of child maltreatment, and other forms of interpersonal violence (e.g., sexual assault), and examining variables that mediate the relationship between child maltreatment and adult victimization and trauma.

Marsha G. Runtz is an associate professor of clinical psychology and acting director of clinical training at the University of Victoria in British Columbia, Canada. Her research and clinical work centers on the long-term effects of child sexual, physical, and psychological maltreatment and the exploration of variables that mediate the relationship between child maltreatment and adult adjustment. Most recently she has been examining the influence of victimization on women's physical health and sexual well-being and the role of coping strategies, social support, posttraumatic stress, and adult attachment style as mediators of psychological and physical well-being.

Helena Kadlec is an associate professor of psychology and associate dean of the Faculty of Social Sciences at the University of Victoria, British Columbia, Canada. Her primary research and teaching areas are in mathematical models of perception and cognition and research methods and statistics for the behavioral sciences. Specifically, her recent theoretical and methodological research has centered on extending signal detection theory (statistical decision making) to multidimensional domains.