

ADULT SEXUAL OUTCOMES OF CHILD SEXUAL ABUSE VARY ACCORDING TO RELATIONSHIP STATUS

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This study tested a moderation model in which the association between child sexual abuse severity and negative sexual outcomes (i.e., sexual avoidance and compulsivity) differed as a function of relationships status (i.e., single, cohabiting, and married individuals). A sample of 1,033 adults completed self-report questionnaires online, and 21.5% reported childhood sexual abuse. Path analyses indicated that child sexual abuse severity was associated with higher sexual compulsivity in single individuals, both higher sexual avoidance and compulsivity in cohabiting individuals, and higher sexual avoidance in married individuals. The moderation model was invariant across men and women. These results suggest that the time course of negative sexual outcomes associated with child sexual abuse may follow distinct patterns of expression according to relationship status.

Couple and family therapy guidelines and manuals generally pay relatively little attention to past child sexual abuse in their adult patients and, on those occasions when it is discussed, tend to consider it a specialty practice issue (Gurman, Lebow, & Snyder, 2015). Yet, recent studies show significant rates of childhood sexual abuse in clinically treated couples, especially when sexual difficulties are present (Berthelot, Godbout, Hébert, Goulet, & Bergeron, 2014). These findings suggest a need to better understand the repercussions of child sexual abuse on couple outcomes, including sexual problems, and support the routine implementation of empirically based assessment of past child sexual abuse in couple and family therapy. This is important not only because of the prevalence of the phenomenon, but also given recent research indicating that sexual abuse may partially explain the interplay of couple issues and may contribute to some of the difficult-to-treat sexual

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avoidance or compulsive problems found in some partners presenting for treatment (Vaillancourt-Morel et al., 2015). The objective of this study was to determine whether the specific nature of childhood sexual abuse-related sexual symptoms, as they are experienced in adulthood, can partly be explained by relationship commitment processes.

Child Sexual Abuse and Adult Sexual Outcomes

A growing empirical literature suggests that childhood sexual abuse can result in a range of long-term adverse sexual outcomes (Rellini, 2014). These sexual reactions have been reported in prospective studies of a variety of different populations, including survivors of child maltreatment with substantiated official records (Wilson & Widom, 2008), community samples of adolescents (Jones et al., 2013), and gay, bisexual, or heterosexual adults (Icard, Jemmott, Teitelman, O'Leary, & Heeren, 2014). They also have been assessed through retrospective self-reports in representative international samples (Plant, Plant, & Miller, 2005) and in diverse clinical groups of persons suffering from sexual dysfunctions (Randolph & Reddy, 2006) or attending health centers for sexually transmitted diseases (Senn & Carey, 2010).

An examination of these studies reveals that sexual reactions to childhood sexual abuse are highly variable: notably absent in a significant portion of survivors (Hullfish et al., 2009), and, in others, ranging from sexual inhibition, sexual avoidance or aversion, low desire, and vaginal or pelvic pain (McCallum, Peterson, & Mueller, 2012) to sexual disinhibition, compulsive or impulsive sex, risk-taking sexual behaviors, and numerous sequential or simultaneous sexual partners (Wilson & Widom, 2008). As shown in a recent literature review (Aaron, 2012), this variability in negative sexual outcomes is well represented by a compulsive-avoidance continuum. Studies show that compulsive and avoidant sexual behaviors may coexist in survivors of child sexual abuse (Noll, Trickett, & Putnam, 2003; Vaillancourt-Morel et al., 2015) and that more severe abuse experiences tend to lead to more negative sexual outcomes (Randolph & Reddy, 2006; Trickett, Noll, & Putnam, 2011).

Survivors' negative sexual outcomes might be explained through the convergence of traumagenic dynamics (i.e., early sexualization, betrayal, stigmatization, and powerlessness; Finkelhor & Browne, 1985), self-capacity disturbances (i.e., alterations in interpersonal relatedness, identity, and affect regulation; Briere & Scott, 2014), and unresolved intrapersonal issues (i.e., mentalization deficits, disorganized attachment; Kwako, Noll, Putnam, & Trickett, 2010). However, as Rellini (2014) observed, this juxtaposition of factors do not fully explain why sexual reactions to sexual abuse are highly variable. Indeed, we know little about why some survivors respond with compulsive sexual problems, while others develop avoidance symptoms (Aaron, 2012). Most studies have focused either on inhibited or on disinhibited sexual responses to child sexual abuse, but not both. When examined concurrently, sexual avoidance and compulsivity are associated with child sexual abuse, but with small effects or high variability among survivors (Najman, Dunne, Purdie, Boyle, & Coxeter, 2005; Noll et al., 2003; Vaillancourt-Morel et al., 2015). Interestingly, clinical case observations suggest that, over time, sexual outcomes may evolve from no noticeable effects, to compulsivity, and then progress to systematic avoidance (Jacob & Veach, 2005). This hypothesis, although congruent with clinical experience, has not been evaluated empirically.

Variability in Adult Sexual Outcomes of Child Sexual Abuse as Explained by Relationship Status

We propose that adult sexual outcomes of child sexual abuse may be partly explained by relational commitment, which is represented by relationship status. We hypothesized that a higher commitment to a steady partner (i.e., in married individuals) may interact with traumagenic processes, self-capacity disturbances, and unresolved intrapersonal issues to engender sexual avoidance responses that are not as readily apparent in noncommitted survivors (Briere & Scott, 2014; Finkelhor & Browne, 1985; Kwako et al., 2010). In contrast, when commitment is lower (i.e., in single individuals), child sexual abuse might be more likely to lead to sexual compulsivity, based on its sexualization effects. In the intermediate situation (i.e., in cohabiting individuals), sexual abuse would be associated with both compulsivity and avoidance.

Clinical case observations support this proposition and suggest that sexual compulsivity may predominate in single individuals, or in the very early stages of relationships (Jacob & Veach, 2005; Rellini, 2014). In such cases, childhood sexual abuse survivors may use sexual behaviors as a way to pursue relationships, achieve proximity, maintain self-worth, reduce emotional distress,

and assuage abandonment anxieties. In low-commitment situations, early and intense sexual responses, need for approval and closeness, and/or the desire to distract from triggered emotional distress may override sexual safety barriers, intimacy fears, or sexual ambivalence and result in higher sexual compulsivity.

In contrast, as commitment intensifies, the development of intimacy may increase feelings of vulnerability, which can trigger unresolved past traumatic issues and feelings associated with having been violated by sexual abuse. As a result, the survivor may increasingly avoid sexual stimuli in the relationship in order to reduce the chances of being triggered and may, in fact, become increasingly dissociated in response to reactivated abuse-related trauma, leading to decreased desire or relational disconnection. As well, there may be a more cognitive component, in which the survivor has learned to use sex as a way to form relationships and gain approval—strategic behavior that, especially for the increasingly triggered survivor, may no longer appear relevant once a committed relationship has occurred.

Sexual preoccupation and avoidance have sometimes been assumed to fall along gender lines. Specifically, it is assumed that male sexual abuse survivors tend to experience more sexual compulsivity than female survivors, whereas female survivors report more sexual avoidance than male survivors (Aaron, 2012). Yet empirical support for these conclusions is, at best, incomplete (Vaillancourt-Morel et al., 2015). As a result, it is important that studies of the effects of relational status on sexual avoidance versus compulsivity be examined for both men and women.

To our knowledge, the moderating role of relationship status in the association between child sexual abuse and adult sexual outcomes has been assessed on only one occasion (Randolph & Reddy, 2006). Other studies have focused primarily on a specific relationship type (e.g., newlywed couples; DiLillo et al., 2009) or have combined participants regardless of their relationship status (Najman et al., 2005). In other cases, although the sexual outcomes of child sexual abuse have been examined while controlling for marital or cohabitation status (Noll et al., 2003) or relationship duration (Vaillancourt-Morel et al., 2015), these studies did not examine the possible interaction between abuse and relationship status. In the only relevant study, Randolph and Reddy (2006) examined sexual functioning according to child sexual abuse history in 63 women suffering from chronic pelvic pain. Controlling for age and relationship status, child sexual abuse was associated with lower rates of sexual activity, less satisfaction with orgasms and lower feelings of closeness with their sexual partner. However, the interaction effect between child sexual abuse and relationship status did not predict sexual functioning. Despite its attention to relationship status, this study overlooked sexual compulsivity. Moreover, the combination of cohabiting and married women into a single group may have obscured potential differences in commitment levels between these two categories of participants. As well, Randolph and Reddy limited their study to women, thereby constraining the generalizability of their findings.

The Current Study

This study was based on the clinical hypothesis that, in adult survivors of child sexual abuse, symptoms of sexual disturbances would differ as a function of survivors' level of relationship commitment. This hypothesis was examined using path analysis to test a moderation model in which the association between child sexual abuse severity and negative sexual outcomes (i.e., sexual avoidance and compulsivity) differs across relationships status. More specifically, we hypothesized that child sexual abuse severity would be associated with higher sexual compulsivity in single individuals, as opposed to both higher sexual avoidance and compulsivity in cohabiting individuals, and higher sexual avoidance in married individuals. The second goal of the study was to examine whether this model fit well for both women and men (i.e., gender invariance). Finally, to avoid confounds between current age, length of present relationship, and relationship status, our third aim was to verify whether the final moderation model held after controlling for participants' age and length of relationship.

METHOD

Procedure

Adults participants were recruited from French-speaking Canadians from the general population and university students through various methods: messages on social networks such as

Facebook and Twitter (using a page specifically created for this “Study on the determinants of sexuality in adulthood”), emails sent using university electronic lists, and posters at various locations (e.g., stores, service centers, coffee shops, nonprofit community organizations, and support centers for victims of sexual assault). Individuals were invited on a voluntary basis to participate in a 45-min online survey assessing the determinants of sexuality in adulthood. Interested participants accessed a hyperlink which led them to Lime Survey, a secured website holding the online anonymous survey. All participants electronically signed a consent form and then completed the survey, after which the data were automatically stored in a secure and private database. No compensation was offered for participating in the study. The Laval University Institutional Review Board evaluated this study concluded that it carried a “greater than minimal risk” and approved it after a full board review.

Participants

Of the 1,475 voluntary French-speaking Canadians who began the survey, 1,033 (70.0%) completed the question on child sexual abuse history and were included in this study. Of these, 73.6% ($n = 760$) were women and 26.4% ($n = 273$) were men. Participants’ mean age was 27.05 years ($SD = 8.85$, ranging from 18 to 77 years). A total of 9.5% ($n = 98$) were married, 33.7% ($n = 348$) were in a nonmarital cohabiting relationship, and 56.8% ($n = 587$) were single (323 single, 2 widowed, 23 divorced/separated, 239 dating). For participants who were either dating, married, or cohabiting, the length of time in the current relationship averaged 5.29 years ($SD = 6.93$). Most participants identified themselves as heterosexual (84.4%, $n = 872$), 4.6% ($n = 48$) reported being homosexual, and 8.4% ($n = 87$) reported being bisexual. The majority of participants were students (63.2%, $n = 652$), and a third were employed full- or part-time (34.0%, $n = 351$). Among participants, 33.9% ($n = 350$) earned less than Can\$10,000; 32.5% ($n = 336$) earned between Can\$10,000 and Can\$29,999; 16.6% ($n = 171$) earned between Can\$30,000 and Can\$49,999; and 16.1% ($n = 166$) earned Can\$50,000 or more. For international comparison, in Canada, the low income threshold for one person is Can\$22,720 and the 2014 average exchange rate from U.S. dollars to Canadian currency was 1.10 (Statistics Canada, 2014). The majority of participants had some college or university level education (91.9%, $n = 949$).

Measures

Four variables were analyzed in this study: (a) relationship status, (b) child sexual abuse severity, (c) sexual compulsivity, and (d) sexual avoidance.

Relationship status. Relationship status is frequently used as a proxy variable to measure a hierarchy of commitment levels. Traditional classification systems generally refer to legal status, such as being single, in a common-law or cohabitating union, or in a marital relationship (Stanley, Rhoades, & Whitton, 2010). Using relationship status to assess commitment, marriage is placed at the top of the commitment hierarchy to indicate that the economic, legal, religious, sexual, and social norms governing married people’s behavior are stronger than those regulating the relationship of cohabiting or single individuals. Marriage also represents a public long-term commitment, whereas cohabitation is by nature more informal, private, easier to break, or based on decision-making processes that require less commitment (Stanley et al., 2010; Van der Lippe, Voorpostel, & Hewitt, 2014). In this commitment hierarchy, common-law unions may represent an intermediate position between marriage and singlehood. Finally, singlehood is placed at the bottom of the commitment hierarchy to reflect low or no commitment to a steady partner. Despite variations in definitions, singlehood is usually thought to include all individuals not presently in a formal couple relationship, (i.e., single, separated, divorced, or widowed, and dating). Indeed, dating is a noncohabiting form of romantic involvement that is not bound by the legal rights and obligations attached to cohabitation or marriage, and where values regarding sexual exclusivity may be ambiguous and mirror a low level of commitment (Stanley et al., 2010).

In the present study, relationship status was assessed using a sociodemographic questionnaire that included personal and relationship information (e.g., gender, age, relationship status, length of relationship, occupation, sexual orientation, income, and education). Participants who reported themselves to be “married” were coded *married* (1), participants who endorsed “cohabiting with

their partner” but not being married were coded *cohabiting* (2), and participants who reported “dating,” “single,” “widowed,” “separated,” and “divorced” were coded *single* (3).

Child sexual abuse severity. To assess severity of child sexual abuse, a 10-item measure, based on past questionnaires proposed by Finkelhor (1979) and Fromuth and Burkhart (1989), was developed. A child sexual abuse history was defined as any sexual act (i.e., noncontact, touching, oral, anal, or vaginal penetration) between a child under 16 years of age and a person 5 or more years older, or in a position of authority, with or without the presence of physical force or violence, and with or without the “consent” of the child. The first item evaluated if, before 16 years old, participants had any sexual experience with one (or more) individuals at least 5 years older or in a position of authority. To categorize potential abusers, 12 choices were presented: natural or adoptive mother, natural or adoptive father, stepmother, stepfather, grandmother, grandfather, sister, brother, other family member, family friend or an acquaintance at least 5 years older, teacher/babysitter/instructor, or stranger at least 5 years older than the respondent. Participants who responded negatively to all of those choices were coded as nonvictims. Those who responded affirmatively to one of those 12 items were classified as having experienced child sexual abuse. Those two categories were used to compare nonvictims vs. survivors of child sexual abuse in the descriptive analyses.

Based on previous empirical findings (e.g., Berthelot et al., 2014; Godbout, Sabourin, & Lusier, 2009; Vaillancourt-Morel et al., 2015; Watson & Halford, 2010), a severity composite index was then constructed by summing the coding of three separate indices: the frequency of abuse, the intrusiveness of the act perpetrated, and the relationship with the perpetrator, resulting in a scale ranging from zero to 11 where a high score indicated greater CSA severity. Child sexual abuse frequency represented the number of times the abuse occurred and was coded from zero (nonvictim), one (one time), two (two to five times) to three (more than five times). The act perpetrated was coded according to the intrusiveness of sexual abuse and varied from zero (nonvictim), one (without direct contact, i.e., voyeurism or exposure), two (sexual touching), three (oral contact) to four (anal or vaginal penetration). Relationship with the abuser was coded according to the closeness to the abuser and varied from zero (nonvictim), one (stranger), two (known person), three (family member) to four (parental figure). For participants reporting multiple sexually abusive episodes, the most intrusive incident was coded. In the present sample, the correlations between these three severity components ranged between .87 and .91, with a total child sexual abuse severity scale alpha coefficient of .86.

Sexual compulsivity. Sexual compulsivity was measured using a French version of the Sexual Compulsivity Scale (Kalichman et al., 1994). This 10-item measure assesses participants’ obsessive preoccupation with sexuality, their inability to manage their sexual thoughts and/or behaviors, and the consequent effects on daily functioning. Sample items include “My sexual thoughts and behaviors are causing problems in my life” and “I have to struggle to control my sexual thoughts.” This scale is rated on a four-point Likert scale ranging from one (*not at all like me*) to four (*very much like me*). The global score ranges from 10 to 40 and is computed by summing the items. A high score indicates high levels of sexual compulsivity. The structural validity of this total score was confirmed in recent exploratory and confirmatory factor analyses, indicating a good fit for a one-factor solution, with significant paths from the latent factor to each item ranging from .60 to .77 (Vaillancourt-Morel et al., 2015). The scale has demonstrated satisfactory internal consistency (e.g., Cronbach’s alpha ranging between .87 and .92; Kalichman & Rompa, 2001) and temporal stability over a 3-month interval ($r = .80$; Kalichman & Rompa, 1995). In the present study, the alpha coefficient of this scale was .86.

Sexual avoidance. Sexual avoidance was measured with a French version of the sexual avoidance subscale (Katz, Gipson, & Turner, 1992) of the Sexual Aversion Scale (Katz, Gipson, Kearl, & Kriskovich, 1989). This 10-item subscale assesses a general tendency to avoid sexual situations and sexual interactions with a sexual partner. Sample items include “I am afraid to engage in sexual intercourse with another person” and “I try to avoid situations where I might get involved sexually.” This subscale is rated on a four-point Likert-type scale ranging from one (*not at all like me*) to four (*very much like me*). Items are summed to obtain a total score ranging from 10 to 40, where a high score corresponds to a greater tendency to avoid sexual contact. The structural validity of this total score was confirmed in recent exploratory and confirmatory factor

analyses, indicating a good fit for a one-factor solution, with significant coefficients from the latent factor to each item ranging from .59 to .83 (Vaillancourt-Morel et al., 2015). This subscale also demonstrated good internal consistency (e.g., Cronbach's alpha of .87; La Rocque & Cioe, 2011) and good temporal stability over a 1-month period ($r = .90$; Katz et al., 1989). In the current study, Cronbach's alpha for the sexual avoidance subscale was .85.

Statistical Analyses

Descriptive statistics were computed using SPSS 20, and path analyses were conducted using *Mplus*, version 7.3 (Muthén & Muthén, 1998–2012). Frequencies, *t*-tests, ANOVA's, chi-square tests, and correlations between study variables were computed to examine rates and severity of child sexual abuse and to describe associations between study variables. The hypotheses were tested using path analyses, with child sexual abuse severity as the predictor, gender and relationship status as moderators, participants' age and length of relationship as control variables, and sexual avoidance and compulsivity as outcome variables. The covariance between sexual avoidance and compulsivity was estimated given their association observed in previous studies (Noll et al., 2003; Vaillancourt-Morel et al., 2015). Because studied variables are naturally nonnormally distributed, the *Mplus* option (i.e., MLR), allowing for maximum likelihood parameter estimation with standard errors and chi-square test statistic that are robust to nonnormality, was used in all analyses (Muthén & Muthén, 1998–2012). Missing data were treated using the pairwise method, and 65 participants were not included in path analyses because of missing values on both sexual outcome variables.

Path analysis. Path analysis is an efficient way to test complex moderated relationships among different variables that may be correlated. Path analysis simultaneously estimates the strength and significance of associations between the variables and assesses the overall model fit. The empirical covariance matrix is compared to the one expected from the theoretical model. If they match closely, then the data are said to fit the proposed model (Kline, 2010). Based on Kline's guidelines, we employed several fit indices: the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), the standardized root-mean-square residual (SRMR), and the ratio of chi-square to degrees of freedom (X^2/df). Indicators of good fit are a CFI value of .90 or higher, a RMSEA and a SRMR values below .05 and a ratio of chi-square to degrees of freedom less than three (Kline, 2010).

Moderation analysis. In path analysis, moderation effects are tested using intergroups invariance tests. A significant chi-square difference indicates that the structural paths differ across levels of a moderator (Edwards & Lambert, 2007). This intergroup path analysis approach is consistent with MacKinnon, Fairchild, and Fritz (2007) description of moderation and is recommended for categorical moderator variables (Rigdon, Schumacker, & Wothke, 1998).

Moderator effect of relationship status. To determine whether the associations between child sexual abuse severity, sexual compulsivity, and sexual avoidance differed according to relationship status, we used intergroup moderated path analyses. Specifically, we compared a model in which all paths were freely estimated in the three groups (i.e., married, cohabiting, or single individuals) to a model in which the structural paths leading from the predictor variable (i.e., child sexual abuse severity) to the two sexual outcomes were constrained to be equal. Three pairwise comparisons, using chi-square tests, were conducted to examine whether the model was invariant among the groups: married vs. cohabiting, married vs. single, and cohabiting vs. single individuals. A significant chi-square value indicates significant differences between the groups.

Adding the moderator effect of gender. We used intergroup moderated path analyses to assess gender invariance in the most parsimonious relationship status moderation model. In this approach, a saturated model, allowing all paths to be estimated freely between men and women, was compared to a model in which paths leading from child sexual abuse severity to sexual outcomes were constrained to be equal across gender. A significant chi-square value indicates significant differences between men and women.

Controlling for participants' age and length of relationship. Because age of the participants and length of present relationship could affect the generalizability and strength of the associations between child sexual abuse and sexual behaviors, participant's age and length of relationship were

added as control variables in the final model. Satisfactory fit indices would indicate that the model holds when controlling for age and length of relationship.

RESULTS

Descriptive Analyses

Child sexual abuse prevalence across gender and relationship status. In the present sample, 21.5% ($n = 222$) of participants reported a history of child sexual abuse. As reported in Table 1, the prevalence rates did not vary as a function of gender or relationship status.

Characteristics of child sexual abuse and severity reported in the survivor subsample. In the survivor subsample, the mean child sexual abuse severity score was 7.16 ($SD = 1.60$). Child sexual abuse frequency ranged from a single episode (23.9%, $n = 53$), two to five experiences (43.2%, $n = 96$), to more than five incidents (29.7%, $n = 66$). A majority of survivors (68.9%, $n = 153$) reported being abused by a family member who was not a parental figure, while 9.9% ($n = 22$) reported abuse by a parental figure, 12.2% ($n = 27$) by a nonfamily member who was known by the survivor, and 9.0% ($n = 20$) by a stranger. Finally, 55.9% of survivors indicated that the most severe abuse was limited to sexual touching or sexual fondling ($n = 124$), whereas 9.9% ($n = 22$) reported no physical contact, 14.4% ($n = 32$) reported oral sex, and 18.0% ($n = 40$) reported vaginal or anal penetration. As reported in Table 1, mean child sexual abuse severity scores did not differ according to gender or relationship status.

Sexual compulsivity and sexual avoidance among sexual abuse survivors and nonabused participants, according to gender. Means and standard deviations for sexual compulsivity and sexual avoidance as a function of child sexual abuse history and gender are reported in Table 2. Compared to nonvictims, child sexual abuse survivors reported more sexual compulsivity, $t(965) = 4.66$, $p < .001$, $\eta^2 = .028$, and more sexual avoidance, $t(966) = 2.48$, $p = .014$, $\eta^2 = .008$. Women survivors reported more sexual compulsivity and sexual avoidance than nonabused women (compulsivity: $t[722] = 3.62$, $p < .001$, $\eta^2 = .023$; avoidance: $t[723] = 2.16$, $p = .032$, $\eta^2 = .009$). Men survivors reported more sexual compulsivity than men that were not abused (compulsivity: $t[241] = 3.41$, $p = .001$, $\eta^2 = .046$; avoidance: $t[241] = 1.25$, $p = .212$, $\eta^2 = .006$).

Sexual compulsivity and sexual avoidance among sexual abuse survivors and nonabused participants, according to relationship status. We examined sexual outcomes according to child sexual abuse history in the three relationship status groups (see Table 2). Consistent with expectations, results indicated that single and cohabiting survivors reported more sexual compulsivity than their nonabused counterparts (single: $t[539] = 3.89$, $p < .001$, $\eta^2 = .027$; cohabiting: $t[330] = 3.32$, $p = .001$, $\eta^2 = .054$; married: $t[92] = -0.31$, $p = .758$, $\eta^2 = .001$). Inversely, married and cohabiting survivors indicated more sexual avoidance than nonabused individuals (single: $t[539] = 0.92$, $p = .360$, $\eta^2 = .024$; cohabiting: $t[331] = 2.01$, $p = .048$, $\eta^2 = .024$; married: $t[92] = 2.00$, $p = .048$, $\eta^2 = .042$).

Correlations between child sexual abuse severity, sexual compulsivity, and sexual avoidance. Pearson's correlations between variables in the path analysis model, according to gender and relationship status, were computed. Child sexual abuse severity was significantly associated with sexual compulsivity in both women ($r = .15$, $p < .001$) and men ($r = .21$, $p = .001$) as well as in single ($r = .17$, $p < .001$) and cohabiting individuals ($r = .21$, $p < .001$). Child sexual abuse severity was also correlated with sexual avoidance in women ($r = .07$, $p = .046$), as well as in married ($r = .24$, $p = .024$), and cohabiting ($r = .14$, $p = .013$), individuals. The correlation between sexual compulsivity and sexual avoidance was significant for both women ($r = .11$, $p = .003$) and men ($r = .19$, $p = .003$) as well as for single participants ($r = .12$, $p = .004$).

Path Analysis of Child Sexual Abuse Severity, Sexual Compulsivity, and Sexual Avoidance

Using the full sample, without gender or relationship subgroups, results of path analysis indicated that child sexual abuse severity was positively associated with sexual compulsivity ($\beta = .16$, $p < .001$) and sexual avoidance ($\beta = .08$, $p = .019$). The covariance between these sexual behaviors was significant, ($\beta = .12$, $p = .001$), indicating that sexual avoidance and sexual compulsion are positively associated.

Table 1
Child sexual abuse prevalence and severity across gender and relationship status

Variable	Gender		Relationship status			χ^2 or <i>F</i>
	Women	Men	Married	Cohabiting	Single	
CSA history % (<i>n</i>)	21.4 (163)	21.6 (59)	28.6 (28)	19.5 (68)	21.5 (126)	$\chi^2(2, 1033) = 3.70, p = .157,$ Cramer's <i>V</i> = .060
CSA severity <i>M</i> (<i>SD</i>)	7.18 (1.48)	7.10 (1.91)	7.32 (1.76)	7.21 (1.48)	7.10 (1.69)	$F(2, 219) = 0.25, p = .781,$ $\eta^2 = .002$
<p><i>Note.</i> CSA = childhood sexual abuse.</p>						

$\chi^2(1, 1033) < .01; p = .995;$
Cramer's *V* = .002

$t(220) = 0.30, p = .765,$
 $\eta^2 = .001$

Table 2
Means and standard deviations for sexual compulsivity and sexual avoidance among child sexual abuse survivors and nonabused according to gender and relationship status

Variable	Gender						Relationship status				
	History of CSA		Women		Men		Married		Cohabiting		Single
	No-CSA	CSA	M (SD)	No-CSA	CSA	No-CSA	CSA	M (SD)	No-CSA	CSA	M (SD)
Sexual compulsivity	15.45 (5.30)	17.76*** (6.51)	14.60 (4.73)	16.50*** (5.94)	18.02 (6.07)	21.32*** (6.75)	15.69 (5.27)	15.31 (5.69)	14.49 (4.57)	17.63*** (7.18)	16.02 (5.64)
Sexual avoidance	12.44 (3.97)	13.36* (4.88)	12.40 (3.80)	13.43* (4.90)	12.55 (4.46)	13.43 (4.84)	12.35 (3.74)	14.19* (4.58)	11.49 (2.62)	12.76* (4.85)	13.05 (4.56)

Note. CSA = childhood sexual abuse. * $p < .05$; ** $p < .01$; *** $p < .001$.

Moderator effect of relationship status. The comparison of the model in which all paths were freely estimated for married, cohabiting, or single individuals to the model in which equality constraints were placed on all structural paths for these three groups yielded a significant chi-square difference, $\chi^2_{diff}(4) = 9.94, p = .041$, indicating that child sexual abuse severity differentially predicts sexual compulsivity and avoidance within the three groups (i.e., married, cohabiting, and single individuals; see Figure 1). Results show that, in single individuals, sexual abuse severity was related solely to higher sexual compulsivity. In cohabiting individuals, sexual abuse severity was related to both higher sexual avoidance and compulsivity. In married individuals, sexual abuse severity was associated with sexual avoidance only. Finally, the covariance between sexual compulsivity and avoidance was significant only in single individuals.

Results of the pairwise model comparisons revealed that married individuals significantly differed from cohabiting ($\chi^2_{diff}(2) = 6.13, p = .047$) and single individuals, $\chi^2_{diff}(2) = 8.69, p = .013$, in relation to sexual compulsivity and avoidance. However, the difference between cohabiting and single participants was nonsignificant, $\chi^2_{diff}(2) = 2.15, p = .342$. Therefore, cohabiting and single individuals were combined into a single group and compared to married participants. The difference between these two groups was significant, $\chi^2_{diff}(2) = 8.37, p = .015$. Specifically, sexual abuse severity predicted sexual avoidance only in married participants while sexual abuse severity significantly predicted sexual compulsivity only in unmarried participants (see Figure 2). The moderation models were re-estimated excluding widowed, separated, and divorced participants ($n = 25$).

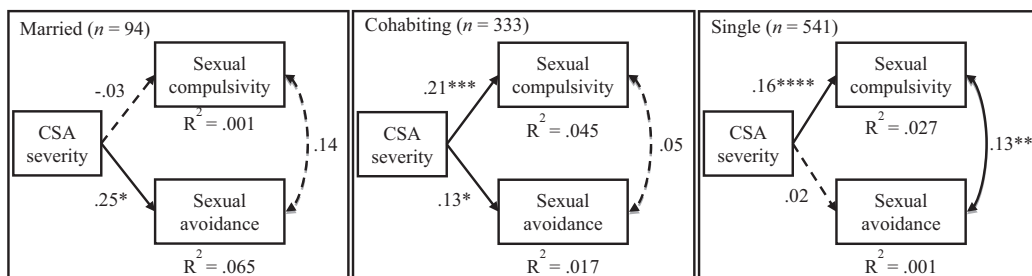


Figure 1. Freely estimated path analysis model of the association between child sexual abuse severity, sexual compulsivity, and sexual avoidance across relationship status.

Note. CSA = childhood sexual abuse. * $p < .05$; ** $p < .01$; *** $p < .001$.

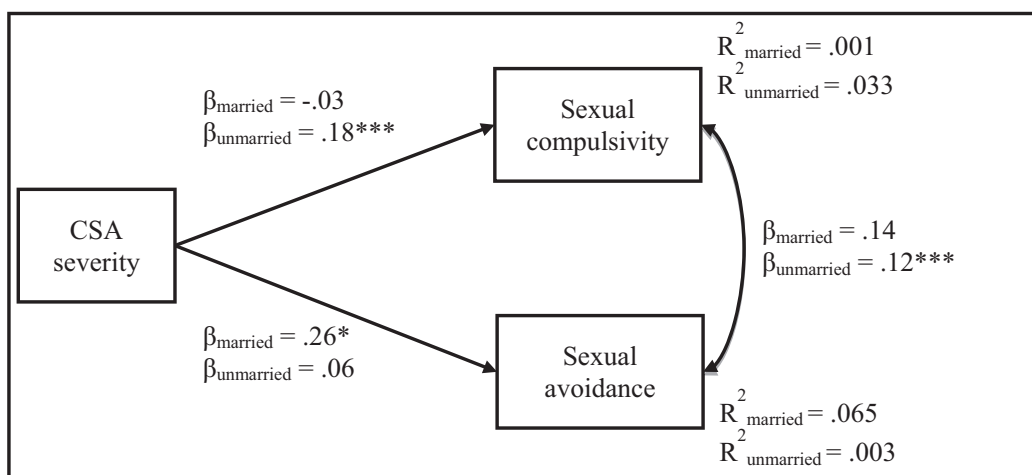


Figure 2. Freely estimated path analysis model of the association between child sexual abuse severity, sexual compulsivity, and sexual avoidance across married and unmarried participants.

Results yielded no meaningful difference in the significance or strength of the coefficients, nor in the fit characteristics of the model.

Adding the moderator effect of gender. The comparison of the model in which all paths were freely estimated between four groups (i.e., married women, married men, unmarried women, unmarried men), to the model in which paths from sexual abuse severity to sexual outcomes were constrained to be equal across men and women, produced a nonsignificant chi-square difference, $\chi^2_{diff}(4) = 3.66, p = .455$. Thus, the moderation model indicating differences in the sexual outcomes of sexual abuse severity among married versus unmarried participants held for both women and men. This final model, testing both relationship status and gender invariance, proved satisfactory, $\chi^2(4) = 3.66, p = .455$; RMSEA = .00, 90% CI (.00 to .09); CFI = 1.00; SRMR = .03; $\chi^2/df = 0.92$.

Respecifying child sexual abuse severity. As indicated in the Method section, the act perpetrated was coded on five point scale, where 0 = no child sexual abuse, 1 = voyeurism or exposure, 2 = touching, 3 = oral contact, and 4 = anal or vaginal penetration. Although this hierarchy was created based on the existing literature, the relative severity of various sexually abusive acts remains unresolved (Negriff, Schneiderman, Smith, Schreyer, & Trickett, 2014). Specifically, it was possible that oral contact or penetration might be of equal severity to vaginal or anal penetration in some cases. To evaluate this possibility, the model was re-estimated using a revised four-point act perpetrated scale where oral contact or penetration was coded at the highest level of severity, along with vaginal and anal penetration. This change in the severity scale made no meaningful difference in the significance, strength, or pattern of the model coefficients, nor in the fit characteristics of the resultant model, $\chi^2(4) = 3.72, p = .446$; RMSEA = .00, 90% CI (.00 to .09); CFI = 1.00; SRMR = .03; $\chi^2/df = 0.93$. As a result, the original model, in which oral contact was coded as less severe than vaginal or anal penetration, was retained.

Controlling for participant age and length of relationship. Because participants' current age and length of relationship were multicollinear in the present analysis ($r = .75$), these two variables were introduced separately as covariates in the final model. Adding participants' current age or length of relationship as a covariate in the final model did not change the significance or strength of the association between variables and resulted in satisfactory fit indices for both models; age: $\chi^2(4) = 3.95, p = .412$; RMSEA < .01, 90% CI (.00 to .10); CFI = 1.00; SRMR = .02; $\chi^2/df = 0.99$; length of relationship: $\chi^2(4) = 3.45, p = .485$; RMSEA < .01, 90% CI (.00 to .11); CFI = 1.00; SRMR = .03; $\chi^2/df = 0.86$. These additional analyses confirmed that the model held independently of participants' age and length of the relationship.

DISCUSSION

The results of the present study are consistent with a life-course perspective, whereby some child sexual abuse repercussions become more clearly observable in reaction to circumstances, events, and norms associated with the romantic partner role (Rellini, 2014). More specifically, results indicated that child sexual abuse survivors who have attained a relationship status consistent with high formal commitments (i.e., marriage) are more likely to report sexual avoidance. In comparison, single survivors are more likely to evidence sexual compulsivity, whereas cohabiting survivors report a mixture of sexual avoidance and compulsivity. Thus, the present findings suggest that sexual abuse-related sexual avoidance and sexual compulsivity may follow distinct patterns of expression according to relationship status. To our knowledge, this is the only study simultaneously comparing both inhibited and disinhibited sexual symptoms in adult child sexual abuse survivors, using the whole spectrum of the relationship status construct.

Theoretical and Clinical Implications

This complex moderator effect may have different interpretations. Although sexual compulsivity can be observed in adult survivors of child sexual abuse who are not seriously committed in an intimate relationship, the present study suggests that sexual avoidance may replace compulsivity for those who are married or cohabiting long-term, potentially due to internal and external dynamics that inhibit psychosexual intimacy. Before being involved in a couple relationship, or during its early phases, the child sexual abuse survivor may repeatedly engage in sexual behaviors

to bypass intimacy difficulties, downregulate distress, or to reduce abandonment anxieties. After a “honeymoon” period, idealization often fades (Murray, Holmes, & Griffin, 1996), after which the survivor may be repeatedly confronted with his or her own and his or her partner’s challenges and shortcomings in the context of the daily hassles and stressful events common to cohabiting and marital relationships (Kim, Noh, & Park, 2015). Over time, these challenges may trigger or interact with traumagenic processes, self-capacity disturbance, and unresolved intrapersonal issues associated with child sexual abuse. This convergence of sexual and relationship challenges may, in turn, trigger dysregulated, abuse-related feelings of pain, rage, betrayal, shame, or powerlessness (Briere, 1996). This may also be associated with the collapse of dissociative coping strategies designed to split intimacy and sexual issues. Moreover, in some less healthy relationships, survivors have to deal with pathogenic couple processes (i.e., domestic violence or emotional abuse) that may trigger stronger negative reactions associated with past child sexual abuse. Thus, sexual relations may become intermingled with past violations of trust and increasingly prevalent intimacy issues, lessening the compulsive use of sexuality as a coping mechanism, potentially changing the meaning of sexual activities, and ultimately inhibiting sexual responses toward the partner. When faced with such circumstances, dating or cohabiting survivors are able to opt out of the relationship more easily, whereas the constraining social contract embedded in marriage as a public, long-term, and exclusive commitment may exert a stronger pressure on the survivor to remain in the relationship, but engage in sexual avoidance.

Alternatively, or in addition, the causal pathway may be from sexual avoidance or sexual compulsivity to relationship status. Survivors who are sexually avoidant may engage in stable relationships characterized by commitment and intimacy in which the partner tolerates a low level of sexuality. Individuals who were sexually abused and who suffer from sexual compulsivity may self-select out of marriage and prefer the more informal, unstable, and less emotionally intimate option of serial dating or cohabitation. Nonmarried cohabiting relationships are a contemporary trend in union formation processes (Reimondos, Evans, & Gray, 2011) that may be more appealing to some sexual abuse survivors who, over the short run, feel more secure or protected in relationships that can be ended readily. They may also elect to remain single in order to avoid abuse-related anxieties about intimacy or potential abandonment that can arise in committed relationships. This hypothesis is supported by a study of shorter-term relationships in child sexual abuse survivors relative to nonsurvivors (Cherlin, Burton, Hurt, & Purvin, 2004). They found that cohabiting survivors appear to occupy an intermediary position along the inhibited/disinhibited sexual symptoms continuum, such that sexual abuse severity was associated with both sexual avoidance and sexual compulsivity. However, pairwise comparisons indicated that the relations between child sexual abuse severity and sexual outcomes for cohabiting individuals were more similar to single participants than married individuals. If replicated, these findings would be compatible with a *hierarchy of commitment* hypothesis, suggesting that the specific nature of sexual outcomes in child sexual abuse survivors may be a partial by-product of marital status, or that remaining single may be, in part, an abuse outcome for child sexual abuse survivors.

The finding that sexual outcomes of child sexual abuse vary according to relationship status, potentially as a function of intimacy issues, has relevance for clinicians working with sexually distressed individuals within couple relationships. The results highlight the need for systematic assessment of both partners’ sexual abuse history—and its severity—in face-to-face interviews, detailed questionnaires, or, preferably, using both. Unfortunately, some couple therapists are reluctant to directly assess past abuse when it is not spontaneously disclosed by the couple. Although it is possible that some patients will feel re-traumatized when narrating these aspects of their life-story, the available research suggests that, at least in research contexts, reporting past abuses is not associated with negative outcomes (Jaffe, DiLillo, Hoffman, Haikalis, & Dykstra, 2015). In contrast, failing to ask about a history of sexual victimization may inadvertently reinforce negative abuse-related internalizations, for example, the injunction not to break secrecy, the conviction that adults and professionals are not to be trusted, etc. In this regard, there may be potential reparative experiences associated with discussion of past abuse.

Some therapists also may not ask about sexual abuse history based on unease regarding mandatory reporting, especially when the presumed perpetrator still has access to minors. In such circumstances, however, it is ethically incumbent upon the clinician to protect other potential

victims, even above and beyond his or her duty to the client. Although this is a complex issue, it is often suggested that clients be informed of the therapist's duty to inform authorities if there is even a possibility of current risk to a child, so that the clinician's duties in this regard do not constitute an unexpected, seeming betrayal (Briere, 1996).

The assessment of child sexual abuse should preferably be initially conducted in individual interviews followed by a couple interview where potential disclosure to the partner can be addressed. It is also important to determine whether past sexual abuse has been disclosed to the partner, and, if the survivor wishes to disclose, what the partner's reactions to this disclosure may involve. Exploration and processing of the emotional issues surrounding the survivor's history, from both the survivor's and partner's perspective, may help to deepen the patients' and therapist's understanding of the potential contributions of abuse to the present sexual difficulties. Systematic assessment of childhood sexual abuse may cause some discomfort, but will typically help explicate ongoing sexual dynamics and potentially reduce the likelihood of therapeutic impasses or failures.

Couple interventions that identify sexual compulsion and avoidance as at least partially sexual abuse-related, and address the traumatic mechanism underlying compulsive and avoidance sexual symptoms, are likely to significantly benefit abuse survivors in couple, as well as individual, treatment. For example, couple interventions that focus on issues involving sexual abuse-related fears of vulnerability and closeness, and the role of sexual activity for both the clients and the relationship, may remediate attachment injuries within the relationship, enhance intimacy and communication, and foster healthier sexuality. Attachment-oriented couple therapy, to the extent it is relevant, may also help the survivor and his or her partner to understand how past sexual abuse has led to easily triggered, inappropriately negative internal models of the partner, and specific maladaptive sexual behaviors based on proximity and intimacy (Gurman et al., 2015). As well, recognition of the antecedents to sexual difficulties that predated the current relationship, such as compulsive sexual behaviors that were initially developed to reduce abuse-related distress, and the habitual use of avoidance to increase relational safety, also may be addressed in concurrent, trauma-focused individual psychotherapy (Briere & Scott, 2014).

Although different interpretations of the relationship status findings are possible, the current findings are statistically robust and generalizable across gender, age, and relationship duration. They support a gender similarity hypothesis, and point to parallel sexual coping mechanisms for men and women child sexual abuse survivors, thereby challenging the clinical assumption that child sexual abuse necessarily results in higher sexual compulsivity for men and increased sexual avoidance for women (Aaron, 2012). Yet, the debate regarding gender similarity versus gender differences in relational/sexual outcomes of child sexual abuse is still unresolved, and in need of additional research. It is possible that gender similarity applies for the specific sexual outcomes measured in the present study, whereas gender difference may be relevant for other sexual symptoms. Further studies should examine motivations for marriage in sexually abused participants versus nonvictims, including across gender. At minimum, our findings indicate that, for a significant number of survivors, sexual avoidance and compulsivity difficulties following child sexual abuse are more associated with relationship status than gender.

This research also suggests that a hierarchy of commitment hypothesis cannot be explained away by the documented association between age or relationship duration and marital status (Manning, Brown, & Payne, 2014). Because sexual desire and the frequency of sexual behaviors typically decrease with age and relationship duration (Murray & Milhausen, 2012), a competing hypothesis would be that married and cohabiting child sexual abuse survivors report more sexual avoidance because relationship duration is accompanied by a diminution of sexual activities in all couples. This is unlikely to be a major factor, however, because the findings reported here remained robust after controlling for age and relationship duration.

Limitations

Although our results are consistent with contemporary clinical hypotheses and provide a more complex picture of inhibited and disinhibited sexual responses to child sexual abuse in both men and women, they are limited by several methodological issues. First, although we used path analyses, the cross-sectional nature of this study precludes causal conclusions that can be confirmed only in longitudinal studies. Second, the generalizability of our results may be reduced by the use of a

convenience sample, recruited through an online survey, with a high proportion of women and university students. Moreover, differences potentially due to sexual orientation or socioeconomic status, or participants' level of sexual experience before marriage, were not evaluated, and thus, we could not further qualify the association between child sexual abuse, relationships, and sexual outcomes. Third, this investigation relied on retrospective self-report measures exclusively, which may introduce typical biases, including underreporting, over-reporting, and recall issues. Computerized questionnaires, neutral inquiry in child sexual abuse assessment, and the use of standardized scales to assess sexual attitudes and behaviors facilitated the truthful/valid report of sensitive material. Fourth, no validated clinical cutoffs are available for the sexual avoidance and compulsivity scales used in this study; thus, associations between CSA and these sexual outcomes should be interpreted with caution so as to not overly "pathologize" the findings reported here. As well, relationship status was used as a proxy variable to assess the commitment level of the relationship in this study, but confounding factors such as sociocultural scripts regarding marital status, religion, or the presence of children also may impact the validity of our results, as could individual participant differences in the amount of relational commitment actually invested in dating, cohabiting, and marital relationships. Similarly although the present study examined the moderating role of relationship status and gender, as well as controlling for the age of participants and length of relationship, other factors also may contribute to the within- and between-person variability of sexual reactions to child sexual abuse, such as the presence of other types of child abuse or neglect, and quality of childhood attachment. Finally, the amount of variance accounted for in the two sexual outcomes examined here was relatively modest, although not atypical for behavioral sciences research.

Further Study

This research illustrates the need, as emphasized by Dewitte (2014), to include individual and relational variables, in more complex models, to accurately account for the development of sexual distress or disturbance. Future investigations in this area ideally will include longitudinal studies employing large samples of adolescents and emerging adults, following them into older adulthood with multiple measures of sexual symptomatology (including more detailed assessments of sexual compulsivity and avoidance), and self-reports of relational status, commitment, and intimacy. Beyond a few prospective studies (Colman & Widom, 2004; Trickett et al., 2011), conclusions about the adverse sexual outcomes of sexual abuse are drawn from cross-sectional designs, precluding fine-grained analyses that give due consideration to the interplay of evolving child sexual abuse sequelae and sexual dynamics in dating, cohabiting, and marital relationships. Finally, although the current study indicates that relationship status is significantly associated with sexual compulsion and sexual avoidance, it is almost inevitable that alternative explanations and many other factors, mediators, and moderators of negative sexual outcomes in survivors of child sexual abuse are relevant to study in this area.

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