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Sexual Function and Satisfaction in Adults Based on the Definition of Child Sexual Abuse

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A B S T R A C T

Introduction. The literature shows a discrepancy in the association between child sexual abuse (CSA) and adult sexual function. One of the proposed explanations for this discrepancy is the different ways in which CSA is assessed. While some studies explicitly ask potential participants whether they are sexual abuse survivors, others ask whether participants experienced specific unwanted sexual behaviors.

Aim. This study investigated the differences between women who self-identified as CSA survivors, women who experienced similar unwanted sexual experiences but did not identify as CSA survivors (NSA), and women with no history of sexual abuse (control). CSA was defined as unwanted touching or penetration of the genitals before the age of 16.

Methods. A sample of 699 college students anonymously completed a battery of questionnaires on sexuality and sexual abuse history.

Main Outcome Measures. Sexual function was measured with the Female Sexual Function Index (FSFI), and sexual satisfaction was measured with the Sexual Satisfaction Scale-Women. History of CSA was measured with a modified version of Carlin and Ward's childhood abuse items.

Results. Differences emerged between women who experienced sexual abuse before age 16 and women who never experienced sexual abuse (control) on the personal distress subscale of the Sexual Satisfaction Scale. The CSA group (N = 89) reported greater sexual distress compared to the NSA (N = 98) group, and the NSA group reported more distress than the control group (N = 512). No significant group differences were observed in the FSFI. Characteristics of the abuse that predicted whether women identified as CSA survivors included vaginal penetration, fear at the time of the abuse, familial relationship with the perpetrator, and chronic frequency of the abuse. These abuse characteristics were associated with sexual satisfaction but not with sexual function.

Conclusions. Differences in levels of sexual satisfaction between women with and without a history of CSA were associated with the type of CSA definition adopted. It remains unexplained why the CSA group showed more personal distress about their sexuality but not more sexual dysfunction. **Rellini A, and Meston C. Sexual function and satisfaction in adults based on the definition of child sexual abuse. J Sex Med 2007;4:1312–1321.**

Key Words. Child Sexual Abuse; Sexual Arousal; Sexual Function; Sexual Satisfaction; Sexual

Introduction

In the past 50 years, researchers have shown an increasing interest in the short- and long-term consequences of childhood sexual abuse (CSA).

Because of the inherent difficulty of conducting longitudinal studies before and after the abuse, and problems with attrition, the majority of the knowledge in this area is based on cross-sectional studies. The few longitudinal studies available in the

literature have, however, supported the results of large correlational studies [e.g., 1]. The literature has outlined a link between CSA and a variety of psychological disorders including depression, posttraumatic stress disorder, eating disorders, and borderline personality disorder [e.g., 2]. An area of adult functioning in CSA survivors that has received comparably less attention is sexual function. Across different methodologies and definitions used to describe CSA, studies have generally indicated that sexual function and sexual satisfaction are impaired among CSA survivors [e.g., 3,4]. However, in a review of studies conducted on college students, Rind et al. [5] found that the effect sizes of the differences between women with and without a history of CSA were negligible. One potential reason for the disagreement in the literature may be methodological differences between studies including the definition of CSA.

The lack of agreement on how to operationalize CSA has been one of the major criticisms in the literature on sexual abuse. Peters et al. [6] distinguished the different definitions of CSA into *relationship-specific* and *activity-specific*. Relationship-specific definitions ask people to use their own perception of whether they have been sexually abused using questions such as "As a child of 16 years or younger, were you ever a victim of childhood sexual abuse?" [cf. in 7]. On the other hand, activity-specific definitions are based on a description of the behavior such as "Has an adult or older person touched or fondled your genitals before the age of 16?" [cf. in 7]. Generally, studies that have used relationship-specific definitions elicited lower prevalence rates than studies adopting activity-specific definitions [8]. Outcome differences based on whether women who reported unwanted sexual experiences during childhood self-identified as sexual abuse survivors may carry important meaning and warrant further scrutiny.

To test whether the sexuality of women who endorse activity-specific definitions of CSA differ from women who endorse relationship-specific definitions, the present study hypothesized that women who self-identified as CSA survivors and reported penetration of genitals (activity-specific and relationship-specific definitions) would show greater sexual problems and less satisfaction compared to women who experienced the abusive behaviors but did not identify as sexual abuse survivors (only met the criteria for the activity-specific definition). Also, based on studies showing

that CSA survivors have difficulties developing appropriate relationships with peers [9] and given the relational aspect of sexual function and satisfaction, it was hypothesized that women who self-identified as CSA survivors would have more problems with relational aspects of their sexuality compared to women who endured similar experiences but did not identify as sexual abuse survivors.

This study also explored the characteristics of CSA related to sexual function and satisfaction. Specifically, we hypothesized that indicators of a more severe history of abuse would predict whether women self-identified as sexual abuse survivors. The predictors of severity tested in the study are the occurrence of the abuse before puberty, a multiplicity of abuse events, familial relationship with the perpetrator, and more invasive sexual behaviors. Finally, we explored the power of these characteristics to predict sexual function and sexual satisfaction.

Methods

Participants

Women were recruited from an undergraduate college population enrolled in introductory psychology courses at a large university between 2001 and 2006. Before starting the study, the participants signed a consent form that was approved by the Institutional Review Board at the site where the study was being conducted. Only women who reported vaginal intercourse before the age of 16 and who had no history of sexual abuse prior to age 16 were included in the following analyses. The participants were informed before enrolling that the study consisted of an anonymous, self-report survey on sexuality. The initial 699 participants were divided into the comparison group (control) and the abused group. The control group was comprised of women who had never experienced unwanted sexual activities and did not believe they were ever sexually abused (N = 512). The abused (N = 187) group included individuals who experienced unwanted touching or penetration of the genitals before age 16. This latter group was further divided into women who self-identified as abuse survivors, CSA (N = 89), and women who did not identify as sexual abuse survivors, NSA (N = 98).

Measures

Demographics

Information about age, current relationship status (in a committed relationship or not), and ethnicity

was collected with a series of questions developed by the authors. Sexual orientation was assessed using a 7-point Likert scale from "completely heterosexual" (0) to "completely homosexual" (6).

CSA

Carlin and Ward's [10] activity-specific questionnaire was adopted so as to collect information on the frequency of unwanted sexual events (never, once, a few times, repeated times), age when the event started (before age 12 or between age 12 and 16), the relationship with the perpetrator (family, acquaintance, partner, stranger), and the presence of fear for *one's* own life at the time of the event (yes/no). The age of 12 was selected as a cutoff point because it approximates the beginning of puberty. After analyzing the data distribution, it appeared that 92% of the individuals reported that the unwanted sexual experience occurred once; 7% reported multiple occurrences. Therefore, frequency of abuse was dichotomized into once vs. multiple times.

This questionnaire comprised 16 different types of unwanted sexual experiences that ranged from less severe forms of sexual abuse (e.g., been exposed to pornography) to more intrusive types (e.g., intercourse, anal sex). For the purpose of this study, only six items addressing unwanted genital touch, oral sex, anal penetration, or vaginal penetration were used for the activity-specific definition (i.e., "I have been forced to engage in oral–genital sexual relations when I did not want to"). An individual was categorized as a CSA survivor if she scored at least "1" for the frequency of one of the six selected items. These six items were organized into three dichotomous variables: oral sex, genital touch, and vaginal intercourse. None of the women reported forced anal penetration before the age of 16, therefore this variable was excluded from the analyses. A woman who reported more than one type of unwanted sexual behavior received a score of "1" on each of the variables selected. Six women (3.2%) reported having had all three unwanted sexual behaviors, and 13 women (7.0%) reported they experienced two of the three behaviors. The inter-item reliability for frequency of the events was Cronbach's $\alpha = 0.78$.

For the relationship-specific definition of CSA, the following question was used: "Do you feel that you have been sexually abused?" The question was posed after the activity-based questionnaire to increase the likelihood that participants would recall the same sexual activities for both activity-specific and relationship-specific questions. Also,

the participants were provided with space on their response sheet to write additional unwanted sexual experiences not mentioned in the questionnaire. Then, the participants were asked whether they had ever told someone about the unwanted sexual experiences and the nature of the relationship with this individual. The participants who indicated "therapist" were categorized as having received therapy.

Neglect, Physical, and Emotional Abuse

Because past studies have found that childhood physical abuse was an important correlate to adult sexual functioning [11], we included a set of activity-specific questions to assess physical and emotional abuse during childhood [12]. For each of the 35 items (e.g., "I have had broken bones following a beating"), the participants were asked to indicate the frequency of the event and the relationship with the perpetrator. Reports of physical harm caused by siblings, strangers, or acquaintances were not counted as forms of physical child abuse. The coefficient alpha for inter-item reliability was estimated 0.82, 0.87, and 0.65 in the validation study [12] and 0.78, 0.68, and 0.63 in the present study for physical abuse, emotional abuse, and neglect, respectively.

Sexual Function

The Female Sexual Function Index (FSFI) [13], a 19-item scale divided into six domains, was used to assess current levels of sexual function. The domains include desire (two items), sexual arousal (four items), lubrication (four items), orgasm (three items), satisfaction (three items), and pain (three items). A score of six indicates the highest and one indicates the lowest level of sexual function. Rosen et al. [13] reported inter-item reliability values within the acceptable range for sexually healthy women (Cronbach's $\alpha = 0.82 - 0.92$) and for women with diagnosed female sexual arousal disorder (Cronbach's $\alpha = 0.89 - 0.95$). The FSFI has been shown to reliably discriminate between sexually healthy women and women with female sexual arousal disorder [13], and between sexually healthy women and women with female orgasmic disorder and/or hypoactive sexual desire disorder [14]. Only the desire, arousal, and orgasm domains were used in this study. The satisfaction domain was not used because of the overlap with the Sexual Satisfaction Scale for Women (SSS-W)—a more comprehensive index of sexual satisfaction. The pain domain was not used because of the lack of evidence in the literature that CSA is associated with this sexual problem [4]. The lubrication domain was also not used because of the lack of

reliability of this domain among college students. In this study, inter-item reliability was 0.88, 0.94, and 0.89 for desire, sexual arousal, and orgasm, respectively.

The SSS-W [15] asks respondents to rate their level of agreement (1 [strongly disagree] to 5 [strongly agree]) with 30 items divided into five domains (six items each) of sexual satisfaction supported by factor analyses: ease and comfort discussing sexual and emotional issues (communication); compatibility between partners in terms of sexual beliefs, preferences, desires, and attraction (compatibility); contentment with the emotional and sexual aspects of the relationship (contentment); interpersonal distress regarding the impact of sexual problems on the partner and the relationship at large (relational distress); and personal distress concerning sexual problems (personal distress). Possible scores range from 6 to 30, with lower scores indicating higher levels of sexual distress. In a combined sample of women with and without sexual dysfunction [15], internal consistency coefficients for each domain were in the acceptable range (Cronbach's $\alpha \geq 0.72$). The SSS-W reliably differentiated between women with ($M = 88.8$) and without ($M = 123.4$) sexual dysfunction on each of the domains and the total score. The scale also showed appropriate convergent validity with the FSFI satisfaction domain [15] and divergent validity with the Lock-Wallace marital adjustment scale [15]. In the present study, the inter-item reliability was 0.86, 0.84, 0.90, 0.92, and 0.90, for contentment, communication, compatibility, relational distress, and personal distress, respectively.

The following general question on sexual function was also administered, "How do you feel your early sexual experiences affected your current sexual functioning?" (0 [extremely negative] to 10 [extremely positive], with 5 indicating "no impact at all").

Procedure

Participants responded to advertisements for an anonymous psychology study on sexuality, and received class credit as compensation. The order of the activity-specific questions followed by the relationship-specific question could feasibly create a confound in that women with minor forms of sexual abuse might be less likely to identify as sexual abuse survivors after reading about more severe types of sexual abuse. To test the chance of an order effect, the relationship-specific and activity-specific questions were administered in a counterbalanced order to a separate sample of 89 college women.

Data Analysis

The hypothesis that women in the CSA group would report more sexual dysfunction and less sexual satisfaction than women in the control and the NSA groups was tested with two sets of analyses. Two multivariate analyses of variance (ANOVAs) controlling for emotional and physical abuse were computed to test the group differences in the FSFI domains and the SSS-W factors when women were divided into control and abuse groups according to the activity-specific definition. Second, a multivariate analysis was conducted on sexual function and satisfaction comparing control, NSA, and CSA groups.

To test whether women in the CSA group believed their early sexual experiences affected their current sexuality, a one-way ANOVA was conducted using control, NSA, and CSA as independent variables, and the question "How do you feel your early sexual experiences affected your current sexual functioning?" as the dependent variable. Correlations were conducted to test whether SSS-W and FSFI domains were associated with perceptions of the impact of childhood sexual experiences among women in the NSA and CSA groups.

To explore what abuse characteristics predicted women who self-identified as sexual abuse survivors, a logistic regression was computed for women in the NSA and CSA groups. The dichotomous, independent variables in the model included type of sexual behaviors (each sexual behavior was a separate variable: vaginal penetration, touching, oral sex), relationship with the perpetrator (family, acquaintance, partner, stranger), age of onset of abuse (before vs. after age 12), frequency (a few times vs. chronic), and presence of fear for one's own life at the time of, or immediately following, the event (yes vs. no).

Finally, to test whether the characteristics of the abuse could, in part, explain the variance in adult sexuality, the characteristics identified in the previous logistic analysis were used as dependent variables, and sexual function and satisfaction factors were dependent variables in two multivariate analyses.

Results

Participants Demographics

Participants were mostly Caucasians and no differences were found in ethnicity between the three

Table 1 Demographics for (i) not abused, (ii) abused and not identifying as abused (did not feel abused), and (iii) abused and self-identifying as abused (felt abused)

	Control M (SD)	Abused NSA M (SD)	CSA M (SD)	F
Age	18.87 (1.09)	18.72 (0.97)	18.67 (0.83)	1.42
Sexual orientation	1.47 (0.84)[a]	1.43 (0.63)[ab]	1.88 (0.82)[b]	5.82**
	N (%)	N (%)	N (%)	χ^2
Currently in a relationship	176 (56.2)	49 (52.1)	32 (48.5)	4.75
Ethnic classification				7.94
Caucasian	213 (68.1)	66 (70.2)	43 (65.2)	
African American	18 (5.8)	4 (4.3)	1 (1.5)	
Hispanic	51 (16.3)	14 (14.9)	17 (25.8)	
Asian American	26 (8.3)	10 (10.6)	4 (6.1)	
Other	5 (1.6)	0 (0.00)	1 (1.5)	
Received therapy	—	4 (4.5)	24 (27.0)	107.67***
Fear at time of event (yes)	—	22 (22.4)	35 (39.3)	13.83***
Other types of abuse				
Physical abuse	90 (21.3)	39 (34.2)	33 (37.9)	15.22***
Emotional abuse	81 (19.2)	46 (40.4)	40 (46.0)	39.42***
Neglect	49 (11.6)	23 (20.2)	17 (19.5)	7.66*
Onset of abuse before age 12	—	40 (34.2)	50 (56.2)	9.94**
Vaginal intercourse	—	38 (32.5)	42 (47.2)	4.61*
Perpetrator				
Partner	—	63 (53.8)	24 (27.0)	14.97***
Family member	—	6 (5.1)	21 (23.6)	15.14***
Chronic frequency		8 (6.8)	24 (27.0)	15.61***

*$P < 0.05$; **$P < 0.01$; ***$P < 0.001$.
Different subscripts indicate groups that are significantly different at $P < 0.01$. Data on ethnicity was missing for 386, 4, and 23 participants in the control, NSA, and CSA groups, respectively. Sexual orientation = 2, "mostly heterosexual with some homosexual fantasies."
NSA = women who experienced similar unwanted sexual experiences but did not identify as CSA survivors; CSA = child sexual abuse; SD = standard deviation.

groups (Table 1). Women in the CSA group were more likely to have disclosed the unwanted sexual behaviors to a therapist and reported they experienced fear at the time of the event, compared to women in the NSA group. Women in the CSA and NSA groups reported more physical abuse, emotional abuse, and neglect compared to women in the control group. Also, women in the CSA group were more likely to have reported an earlier onset of the abuse and the presence of vaginal intercourse.

Validity Check for Potential Order Effect of the Questionnaires
Reports of sexual abuse were compared between women who completed the activity-specific questions first followed by the relationship-specific question (N = 669), and women who received the questions in the opposite order (N = 89). Approximately 28% (N = 187) of the women who completed the activity-specific questions first and 31.5% (N = 28) of the women who completed it second endorsed at least one unwanted sexual behavior. A total of 12.7% (N = 89) of the women who completed the relationship-specific question second and 10.0% (N = 9) of the women who completed it first identified as sexual abuse survi-

vors. These results suggest that the current data was not affected by a significant order effect.

Activity-Specific Definition: Abused vs. Not Abused
Scores for desire, arousal, and orgasm as measured with the FSFI did not show significant differences between abused and control groups, $F(8, 1,388) = 0.294$, $P = 0.968$. Scores on the SSS-W factors were also not significantly different between groups, $F(10, 1,438) = 0.628$, $P = 0.791$. Only personal distress showed a group difference, $F(8, 1,388) = 8.16$, $P < 0.01$, in that the abused group, M = 24.13, standard deviation (SD) = 25.16, scored lower compared to the control group, M = 25.54, SD = 5.38, $d = 0.24$.

Activity-Specific and Relationship-Specific Definition: Control, NSA, and CSA
No group differences were observed in the desire, arousal, or orgasm domains of the FSFI between women in the three groups (Table 2). When degrees of physical and emotional abuse were used as covariates, a significant group difference was observed in the personal distress factor of the SSS-W, $F(2, 616) = 3.59$, $P < 0.05$. Univariate tests

Table 2 Means (SD) and effect sizes (Cohen's *d*) in sexual function (FSFI) and sexual satisfaction (SSS-W) between women in the control (A), NSA (B), and CSA (C) groups

	Control (A)	NSA (B)	CSA (C)	*d* (A,B)	*d* (A–C)	*d* (B,C)
FSFI						
Desire	4.06 (1.22)	4.08 (1.09)	4.06 (1.02)	−0.02	0.00	0.02
Arousal	3.90 (2.09)	3.97 (1.84)	3.93 (1.87)	−0.04	−0.02	0.02
Orgasm	2.91 (2.06)	3.17 (1.86)	2.97 (1.88)	−0.13	−0.03	0.11
SSS-W						
Contentment	21.06 (6.44)	20.96 (6.11)	20.31 (6.55)	0.02	0.12	0.10
Communication	23.91 (5.30)	24.22 (5.39)	23.77 (4.73)	−0.06	0.03	0.09
Compatibility	23.69 (5.84)	23.13 (5.91)	22.98 (6.44)	0.10	0.12	0.02
Relational distress	24.84 (5.94)	24.82 (5.76)	24.04 (5.96)	0.00	0.13	0.13
Personal distress	25.39 (5.36)	24.70 (6.15)	23.52 (5.80)	0.12	0.34	0.20

NSA = women who experienced similar unwanted sexual experiences but did not identify as CSA survivors; CSA = child sexual abuse; SD = standard deviation. FSFI = Female Sexual Function Index; SSS-W = Sexual Satisfaction Scale for Women.

indicated that the CSA group reported more personal distress (lower scores indicated more distress) compared to the control group, contrast = 1.36, $P < 0.05$. No significant differences were observed in personal distress between the NSA and the control groups, contrast = 0.07, $P = 0.932$.

Perceived Impact of Early Sexual Experiences and Current Sexual Function

A significant between-groups difference was observed in the single-item measure of perceived impact of childhood sexual experiences, $F(2, 500) = 32.32$, $P < 0.001$. Post hoc between group analyses with Bonferroni correction indicated that, as predicted, women in the CSA group, M = 3.73, SD = 2.03, reported that childhood sexual experiences affected their sexual function more negatively, contrast estimate = −1.44, $P < 0.001$, than women in the control, M = 5.12, SD = 1.26, and the NSA groups, M = 4.49, SD = 1.58; contrast

estimate = −0.78, $P < 0.001$. Also, women in the NSA group perceived their childhood sexual experiences as having a more negative impact compared to women in the control group, contrast estimate = −0.66, $P < 0.001$.

Two separate Pearson's correlations for women in the control and abused groups showed that perception of the impact of childhood sexual experiences on current sexual function was significantly associated with personal distress ($r = 0.163$, $P < 0.05$) in the abused group (Table 3). No significant correlations were observed in the control group.

Abuse Characteristics and Likelihood of Identifying as a Sexual Abuse Survivor

A logistic regression found that the characteristics of the sexual abuse included in the model significantly predicted whether women self-identified as CSA survivors, $\chi^2 (10) = 76.16$, $P < 0.001$. The variables with the greatest weight in the model

Table 3 Correlation matrix for sexual function (FSFI), sexual satisfaction (SSS-W), and the single-item measure of the impact of early sexual experiences on current sexual function (Impact)

	D	A	O	F1	F2	F3	F4	F5	Impact
FSFI									
D		0.433***	0.324***	0.026	0.159***	0.129**	0.098*	0.043	0.097
A	**0.362*****		0.760***	0.345***	0.331***	0.354***	0.242***	0.245***	0.007
O	**0.257*****	**0.799*****		0.353***	0.359***	0.363***	0.246***	0.308***	−0.005
SSS-W									
F1	**0.040**	**0.424*****	**0.424**		0.556***	0.662***	0.529***	0.564***	0.072
F2	**0.053**	**0.401*****	**0.438**	**0.554*****		0.580***	0.494***	0.403***	0.040
F3	**0.120**	**0.526*****	**0.467**	**0.686*****	**0.618*****		0.638***	0.591***	0.053
F4	**0.136**	**0.471*****	**0.409**	**0.479*****	**0.515*****	**0.672*****		0.727***	0.009
F5	**−0.029**	**0.369*****	**0.362*****	**0.568*****	**0.438*****	**0.593*****	**0.641*****		−0.017
Impact	**−0.064**	**−0.019**	**−0.018**	**0.095**	**0.121**	**0.085**	**0.120**	**0.163***	

*$P < 0.05$; **$P < 0.01$; ***$P < 0.001$.
Coefficients in bold below the diagonal midline correspond to women in the abuse group, while the coefficients above correspond to women in the control group.
D = desire; A = arousal; O = orgasm; F1 = contentment; F2 = communication; F3 = compatibility; F4 = relational distress; F5 = personal distress; and Impact = impact of early sexual experiences on current sexual function (0 [extremely negative] to 10 [extremely positive]); FSFI = Female Sexual Function Index; SSS-W = Sexual Satisfaction Scale for Women.

included vaginal penetration, exp B = 1.179, Wald = 6.14, $P < 0.05$; fear at the time of the event, exp B = 1.24, Wald = 8.73, $P < 0.01$; multiple events, exp B = 1.63, Wald = 6.14, $P < 0.05$; and a familial relationship with the perpetrator, exp B = 1.61, Wald = 5.32, $P < 0.05$. If an event occurred multiple times, women were 5.1 times more likely to have identified as survivors. If the perpetrator was a family member, if she felt fear at the time of the event, and if vaginal intercourse was involved, the woman was 5.0, 3.4, and 3.3 times more likely to have identified as a CSA survivor, respectively. An odds ratio of at least two is usually considered clinically significant. Variables that did not provide a unique contribution ($P \geq 0.05$) included touching and oral sex for type of sexual behaviors, acquaintance, partner or stranger for type of relationship with perpetrator, and age of onset.

When only the four variables that showed an independent contribution to the model were entered in a second logistic regression (i.e., multiple abuses, familial relationship with perpetrator, fear at the time of the event, and presence of vaginal penetration), they accurately predicted whether women identified as sexual abuse survivors in 72.8% of the cases, χ^2 (4) = 38.0, $P < 0.001$, Cox and Snell's $R^2 = 0.18$.

Abuse Characteristics and Current Sexual Function and Sexual Satisfaction

In a multivariate analysis that used the FSFI domains as dependent variables, the characteristics of the abuse did not significantly impact overall sexual function. The multivariate F coefficients varied between 0.64 and 0.99 (P range 0.42–0.72). Also, no significant differences in FSFI domains were observed between women who reported vaginal intercourse, fear at the time of the event, multiple events, and a familial relationship with the perpetrator. Moreover, the overall model of sexual satisfaction was not significantly associated with abuse characteristics. The multivariate F coefficient ranged between 1.1 and 1.9 (P range 0.09–0.37). Different SSS-W factors were significantly linked to the characteristics of the abuse. Intercourse showed a significant association with all five SSS-W factors. Compatibility ($F[1, 620] = 10.10$, $P < 0.01$) and personal distress ($F[1, 620] = 8.44$, $P < 0.01$) were the factors with the greatest effect sizes. Familial relationship was significantly associated with communication ($F[1, 620] = 4.26$, $P < 0.05$), compatibility ($F[1, 620] = 5.14$, $P < 0.05$),

and personal distress ($F[1, 620] = 4.23$, $P < 0.05$) (Table 4).

Discussion

This study investigated the potential differences in sexual function and sexual satisfaction of women with and without a history of CSA when utilizing *activity-specific* or *relationship-specific* definitions. The relationship-specific definition required the participants to self-identify as sexual abuse survivors. The activity-specific definition required that participants acknowledge having experienced at least one of six unwanted sexual behaviors before age 16. When using the activity-specific definition, women in the control and abused groups did not significantly differ in levels of sexual function (FSFI). However, the abused group scored higher on personal distress compared to the control group. Consistent with predictions, the effect sizes in personal distress were larger when women were divided according to the relationship-specific definition into control, CSA, and NSA. In particular, women in the CSA group showed significantly more personal distress compared to the other two groups as measured by the SSS-W. On the personal distress variable, the CSA group scored more than 1 SD below the norm for women with no sexual dysfunction, indicating a clinically meaningful level of sexual distress. The CSA group also reported that their childhood sexual experiences had a stronger negative impact on their current sexuality as compared to women in the other groups. Specifically, the control group scored 5 on the impact of childhood sexual experiences, indicating "neither positive nor negative impact," and the CSA group scored 3.7, which corresponded to approximately 1 SD from the mean toward a negative impact of the early sexual experiences on their adult sexual function.

The findings from this study suggest that reports of sexual outcomes among sexual abuse survivors may vary according to the definition of CSA. It is therefore feasible that studies that use relationship-specific definitions of CSA are likely to recruit women who experience more sexual distress compared with studies using only activity-specific definitions.

Given that this study used retrospective reports, it remains unclear whether the higher sexual distress of women who self-identified as CSA survivors can be explained by the appraisal of the event, the tendency of women with more sexual concerns to retrospectively interpret the

Table 4 Multivariate analysis of variance of sexual function (FSFI) and sexual satisfaction (SSS-W) using the characteristics of the sexual abuse (vaginal intercourse, familial relationship, multiple events, and fear) as independent variables

	Penetration			Familial relationship			Fear			Multiple events		
	Yes M (SEM)	No M (SEM)	d	Yes M (SEM)	No M (SEM)	d	Yes M (SEM)	No M (SEM)	d	Yes M (SEM)	No M (SEM)	d
FSFI												
Desire	3.88 (0.23)	4.31 (0.18)	-0.18	4.24 (0.27)	4.00 (0.14)	0.11	4.05 (0.22)	4.17 (0.19)	-0.05	4.14 (0.25)	4.08 (0.16)	0.03
Arousal	3.52 (0.38)	3.94 (0.30)	-0.11	3.63 (0.44)	3.84 (0.23)	-0.06	3.49 (0.36)	3.96 (0.32)	-0.12	4.18 (0.41)	3.36 (0.27)	0.22
Orgasm	2.43 (0.44)	2.93 (0.34)	-0.11	2.51 (0.51)	2.85 (0.26)	-0.08	2.67 (0.42)	2.71 (0.37)	-0.01	3.06 (0.48)	2.37 (0.31)	0.16
SSS-W												
Contentment	19.14 (1.32)	20.66 (1.02)	-0.11	19.92 (1.52)	19.97 (0.79)	-0.00	19.75 (1.24)	20.12 (1.10)	-0.03	20.72 (1.42)	19.27 (0.92)	0.11
Communication	22.80 (1.06)	23.40 (0.18)	-0.09	22.79 (1.22)	23.25 (0.63)	-0.05	23.01 (0.99)	23.22 (0.88)	-0.02	23.64 (1.14)	22.66 (0.74)	0.09
Compatibility	20.10 (1.26)	23.06 (0.97)	-0.23	21.27 (1.45)	22.03 (0.75)	-0.06	22.42 (1.18)	21.03 (1.05)	0.11	22.16 (1.35)	21.26 (0.88)	0.07
Relational distress	22.98 (1.22)	23.44 (0.94)	-0.04	23.12 (1.40)	23.32 (0.72)	-0.02	22.90 (1.14)	23.51 (1.10)	-0.05	22.48 (1.31)	23.87 (0.85)	-0.12
Personal distress	21.70 (1.22)	23.70 (0.94)	-0.16	22.21 (1.40)	23.25 (0.72)	-0.09	23.01 (1.14)	22.56 (1.10)	0.03	21.36 (1.31)	24.00 (0.85)	-0.22

SEM = standard error of the mean.
FSFI = Female Sexual Function Index; SSS-W = Sexual Satisfaction Scale for Women.

unwanted sexual behaviors as abuse, or individual differences in the coping mechanisms of women who do and do not self-identify as survivors (e.g., women who are more likely to use denial as a coping strategy may be less likely to self-identify as sexual abuse survivors). Regardless, the relationship between self-identifying as sexual abuse survivors and sexual satisfaction is worthy of further exploration.

In Spaccarelli's [16] transactional model of CSA, interpreting the event as abuse is proposed as a predictor of long-term lower levels of function. Alternatively, the trauma model of sexual abuse [17] points to the severity of the sexual abuse (e.g., frequency, age of first abuse, and level of intrusiveness of the abusive behaviors) as a potential explanation of the sexual distress experienced by CSA survivors. The results from this study provide support for an explanation that combines both theories in that people with more severe types of sexual abuse were more likely to self-identify as sexual abuse survivors and were also experiencing more distress in their adult sexual function. Specifically, the presence of vaginal penetration and a familial relationship with the perpetrator, two indications of the severity of the abuse, were significantly associated with more severe sexual distress. It is noteworthy that the effect sizes of these differences are relatively small and therefore indicate the importance of unexplored individual differences in the sexual problems of CSA survivors.

The present study advanced the current understanding of relationship-specific vs. activity-specific definitions of CSA; however, other nuances of the definitions, such as the words used to phrase questions regarding CSA, remain unexplored. In this study, the relationship-specific question used was "I feel I have been sexually abused during childhood." An alternative way to phrase the question would be "I am a survivor of childhood sexual abuse." Currently, the questionnaires commonly used in the literature adopt both phrases, and it is unknown whether the difference in wording provides a difference in response.

For what concerns the activity-specific definition, this study used one of the most comprehensive lists of unwanted sexual behaviors available in the literature in an attempt to capture all potential unwanted sexual behaviors that people may have referred to when deciding to identify as sexual abuse survivors. However, it is possible that participants may have referred to events not mentioned in the list provided. Studies that instruct participants to indicate the specific event that they

interpreted as sexual abuse may be able to provide a more accurate picture of the association between unwanted sexual experiences and the appraisal of the event.

It is worth noting that the findings presented in this study are limited by the sampling bias that characterizes studies using college volunteers. It remains unclear whether the same findings would be maintained in a sample of women recruited from the community given that previous studies found a difference between the sexual function of CSA survivors recruited from the college population and women recruited from the community [18]. Despite this limitation, the great variance in sexual function among CSA survivors recruited from the college population can also be construed as strength because, from a statistical point of view, it provides an ideal range of sexual function to study the predictors of this variance.

Contrary to what we expected, only personal distress was significantly associated with perceived impact of childhood sexual experiences on current sexual function. Also, none of the FSFI domains were associated with perceived negative impact of childhood sexual experiences. These results raise an important question on what constitutes sexual satisfaction for CSA survivors because it appears that sexual function, a construct that is commonly associated with sexual satisfaction, does not explain the sexual distress of these women. Perhaps the changes that are negatively affecting women with a history of CSA are not so much associated with sexual function as they are with internal changes such as the perception of sexual selves and women's sexual attitudes. Future studies that explore what affects the sexual satisfaction of CSA survivors would provide important information for the development of target sexual interventions.

In conclusion, differences in levels of sexual satisfaction between women with and without a history of CSA were associated with the type of CSA definition adopted. The relationship-specific definition identified a group of CSA survivors with more severe levels of sexual distress than the activity-specific definition. A question worth noting is why women who self-identify as sexual abuse survivors have more severe sexual problems than women who experienced unwanted sexual experiences but do not self-identify as CSA survivors. The present study provides some support to the potential explanation that women who self-identified as sexual abuse survivors have experienced more severe forms of sexual abuse. These findings are in agreement with the trauma model of sexual abuse in that more severe forms of abuse are associated with more severe consequences; however, the large variance in sexual satisfaction among CSA survivors raises the question of other potential factors implicated in the sexual outcome of CSA survivors such as personality characteristics, appraisal of the event, and coping mechanisms.

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