

Women's History of Sexual Abuse, Their Sexuality, and Sexual Self-Schemas

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In this study, the authors assessed 48 female survivors of child sexual abuse (CSA) and 71 female control participants using measures of adult sexual function, psychological function (i.e., depression and anxiety), and sexual self-schemas. The primary purpose of this study was to examine whether differences existed between women with and without a history of CSA in the way that they viewed themselves as a sexual person and, if so, whether such differences mediated the link between early unwanted sexual experiences and later adult sexuality. CSA survivors were found to view themselves as less romantic and passionate than women who were not abused. In particular, CSA survivors showed an inverse relationship between romantic/passionate sexual self-schemas and negative sexual affect during sexual arousal. The relationship between CSA and negative sexual affect was independent from symptoms of depression and anxiety, suggesting that the impact of CSA on sexual self-schemas may be independent from the impact that the abuse may have in other areas of the survivor's life.

Keywords: sexual abuse, sexual self-schema, sexual behavior, sexual function

The relation between early sexual abuse and disruptions in later adult sexual functioning (for reviews, see Leonard & Follette, 2002; van Berlo & Ensink, 2000) has been found to pertain in particular to problems in desire, sexual arousal, and orgasm (for a review, see Loeb et al., 2002). Research aimed at understanding the psychological mechanisms and processes underlying this relation, however, is notably absent from the literature. Putnam (1990) suggested that the long-term consequences of child sexual abuse (CSA) may be largely mediated by disturbances in the self. Indeed, trauma has been found to negatively affect schemas about safety, others, and self (Dutton, Burghardt, Perrin, Chrestman, & Halle, 1994), and these altered schemas have been implicated in the maintenance of psychological disorders such as posttraumatic stress disorder (e.g., Ehlers & Clark, 2000). Research has shown that self-schemas filter the way in which people perceive, organize, and understand self-relevant information. Schemas can act to regulate cognitions, affect, and behaviors (e.g., Kihlstrom & Cantor, 1983; Markus & Zajonc, 1985) and may disrupt or facilitate the accurate and efficient processing of information (e.g., Kihlstrom & Nasby, 1981). Developmental theorists have postulated that cognitive self-representations are integrally linked to early self and self-other experiences (e.g., Bowlby, 1969, 1980). Whereas the complexity of the self-concept increases with life experiences, self-schemas remain closely associated with early attachment representations, especially throughout adolescence and early adulthood (Mikulincer, 1995).

In an effort to extend work on self-schemas to the sexual realm, Andersen and Cyranowski (1994) developed the Sexual Self-

Schema Scale to assess cognitive generalizations about sexual aspects of oneself. These generalizations are thought to function as "points of origin for making judgments, decisions, inferences, predictions, and behaviors about the current and future sexual self" (Andersen & Cyranowski, p. 1079). According to Andersen and colleagues (Andersen, Woods, & Copeland, 1997; Cyranowski & Andersen, 1998), women who differ in the valence of their sexual self-schemas also differ in affect and behaviors indicative of intimate relationships and in their levels of sexual responsiveness and function. The three factors of the sexual self-schemas for women identified by Andersen and Cyranowski include romantic/passionate, open/direct, and embarrassment/conservatism self views. The relation between sexual self-schemas and sexuality is reported to be independent of personality (e.g., extraversion, self-esteem) effects (Cyranowski & Andersen, 1998). Past sexual abusive experiences were hypothesized by Andersen and Cyranowski to be associated with higher levels of negative sexual self-schemas and lower levels of positive sexual self-schemas. Indeed, the Sexual Self-Schema Scale was used by Reissing, Binik, Khalife, Cohen, and Amsel (2003), who found that women with a history of sexual abuse had significantly less positive sexual self-schemas (romantic/passionate and open/direct) as compared with control participants who were not abused. Sexual abuse was defined as any unsuccessful attempt or forced sexual act, including actions not involving touch. Unfortunately, Reissing et al. did not specify whether there was a direct association between the sexual self-schemas and the sexual dysfunction experienced by the survivors of sexual abuse.

Using a more implicit, computer-generated word association task, Meston and Heiman (2000) reported significant differences between women who were abused and women who were not abused in the associations made between several sexuality-relevant concepts. Particularly relevant to the study of sexual views, words such as "lovemaking" were significantly related to positive affect

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words (desirable, enjoyable) among women who were not abused but were unrelated to positive affect words among women who were abused. This suggests that sexuality may be viewed more negatively by survivors of CSA, and a history of CSA may be linked to negative sexual schemas.

To fully understand the relationship between CSA, sexual self-schemas, and sexual dysfunction, one must also consider levels of psychological distress. Depression is frequently associated with CSA (Saunders, Kilpatrick, Hanson, Resnick, & Walker, 1999) and is a causal factor in numerous sexual dysfunctions (e.g., Angst, 1998; Segraves, 1998). Thus, it is feasible that differences in sexual functioning between CSA survivors and control participants are largely by-products of psychological distress rather than the abuse history per se. Schemas have been implicated in the maintenance of psychological syndromes such as depression and post-traumatic stress disorder (Foa & McNally, 1996). Thus, it is also plausible that differences in sexual functioning are partially attributable to differences in depression or anxiety typical in CSA survivors.

In the current investigation, we examined whether cognitive sexual self-schemas—as defined by the Sexual Self-Schema Scale—differed between women with and without a history of CSA and, if so, whether such measures helped to explain the processes by which early sexual abuse experiences became linked to adult sexuality. This study extends past research of this nature by investigating whether differences in sexual self-schemas explain the sexual dysfunction of women with a history of sexual abuse above and beyond psychological symptoms of depression or anxiety. On the basis of past research (e.g., Meston, Heiman, & Trapnell, 1999; Wenninger & Heiman, 1998; for reviews, see Beitchman, Zucker, Hood, DaCosta, Akman, & Cassavia, 1992; Browne & Finkelhor, 1986; Gilmartin, 1994), we expected a history of CSA to be negatively related to measures of sexual function (e.g., decreased sexual desire and arousal, increased sexual anxiety) and for this relationship to be partially mediated by sexual self-schemas.

Method

Participants

Participants were 48 female survivors of CSA and 71 female control participants who were recruited via advertisements in the university and local newspapers. The advertisements called for women 21–40 years of age with or without a history of sexual abuse to participate in a study directed toward understanding the way in which sexual information is organized and stored in memory among persons who have a history of sexual abuse. CSA was defined as a sexual activity that occurred before the age of 16 years with someone 5 or more years older and was experienced as coercive or forced. An age cutoff of 16 years was selected on the basis of the original definition of CSA adopted by Finkelhor, Hotaling, Lewis, and Smith (1989). Individuals indicated on a 4-point scale ranging from 0 (*never*) to 3 (*more than 10 incidents*) whether they experienced a number of unwanted sexual experiences, what their relation to the person involved was (dating partner, family member, acquaintance, stranger), and whether the person involved was a man or woman. Ratings for experiences that occurred either in childhood or adolescence (prior to the age of 16 years) were used to compute a dichotomous abused/nonabused variable (CSA; for a detailed description of the scoring procedure, see Meston & Heiman, 2000).

We screened participants for absence of severe childhood physical abuse using a telephone interview. In addition, study participants were adminis-

tered the Emotional and Physical Abuse Questionnaire (Carlin, Kemper, Ward, Sowell, Gustafson, & Stevens, 1994). Because past research has noted a relation between physical abuse and sexuality measures (Schloretdt & Heiman, 2003), and because the primary purpose of this investigation was to examine relations between CSA and adult sexuality, data from participants who endorsed severe forms of physical abuse ($n = 4$) were excluded from further analyses (for details on this scoring procedure, see Meston, Heiman, Trapnell, & Carlin, 1999).

Control participants. The mean age for participants who were not abused was 27 years ($SD = 4.9$, range = 21–38); the mean level of education was 16 years. Racial distribution of the group was 4 African American, 1 Hispanic, 6 Asian, and 35 non-Hispanic White women. Marital status was subdivided into 78% single, 18% married, and 4% divorced. Of the group, 96% reported being exclusively or mostly heterosexual, and 4% reported being mostly or exclusively homosexual.

Participants who were sexually abused. The mean age for participants who were sexually abused was 28 years ($SD = 6.0$, range = 20–40); the mean level of education was 15 years. Racial distribution of the group was 5 African American, 2 Hispanic, 3 Asian, 2 American Indian, and 42 non-Hispanic White women. Marital status was 72% single, 16% married, and 12% divorced. Of the group, 93% reported being exclusively or mostly heterosexual, and 7% reported being mostly or exclusively homosexual. All women reported that the experience included genital fondling, and 15 reported that the event included vaginal intercourse. The assailant was a family member in 26 cases (74.3%) and an acquaintance in 8 instances (22.9%). Two of the perpetrators were women (5.7%). A total of 31 women (64.6% of the CSA survivors in the sample) reported experiences of sexual abuse between the ages of 12 and 16 years. Of these women, 58.1% ($n = 18$) were also victims of sexual abuse before the age of 12 years. All women reported genital fondling by a man, and 61.3% ($n = 19$) were forced to have vaginal intercourse and often oral sex. The assailants were mostly family members (10.9%) or acquaintances (7.6%) and were dating partners in only 5.0% of the cases.

Measures

Sexual functioning. The Brief Sexual Functioning Questionnaire (BSFQ) combined items from the Brief Index of Sexual Function (Taylor, Rosen, & Leiblum, 1994) and the BSFQ (Reynolds, Frank, & Thase, 1988). Cronbach's alpha for the total scale was .79 in a sample of 57 women with a history of CSA and 47 comparison women (Wenninger & Heiman, 1998). The Brief Index of Sexual Function uses a time reference of 1 month, whereas the BSFQ uses a time reference of 2 years, thus we created a composite score with only items using the same time reference. Desire, arousal, and anxiety composite scores were computed as follows.

Sexual desire. A sexual desire composite was computed by summing three items from the Sexual Functioning Questionnaire (SFQ; Wenninger & Heiman, 1998):

1. During the past month, how frequently have you felt sexual desire or interest? This feeling may include wanting to have a sexual experience (masturbation or intercourse), planning to have sex, feeling frustrated because of lack of sex, and so forth.

2. During the past month, how frequently have you had sexual thoughts, fantasies, or erotic dreams?

3. How frequently have you masturbated during the past month?

Participants indicated the degree to which they experienced each of these on a 5-point scale ranging from 1 (*not at all*) to 5 (*daily or more than once a day*). On the basis of the current sample, the coefficient alpha for the sexual desire composite was .75.

Sexual arousal. A composite of two items was used to assess sexual arousal:

1. In the past 2 years, how frequently have you experienced physiological signs of sexual excitement during sexual activity with a partner, such as lubrication or swelling?

2. In the past 2 years, how frequently have you felt aroused during sexual activity with a partner?

Individuals indicated the degree to which they experienced these sensations on a 5-point scale ranging from 1 (*never*) to 5 (*always*).

Orgasmic ability. We assessed orgasmic ability using two items from the SFQ:

1. How often have you reached orgasm in the past month during masturbation (1 = *not at all*, 5 = *always*)?

2. How often have you reached orgasm in the past 2 years during sexual activity with a partner (1 = *not at all*, 5 = *always*)?

A composite measure was not computed for orgasmic ability given a low correlation of .31 between these two items.

Negative sexual affect. A negative sexual affect composite was computed by summing the following two items from the SFQ:

1. During a sexual interaction when you are experiencing increased arousal, how frequently do you also experience anger (1 = *never*, 5 = *always*)?

2. During a sexual interaction when you are experiencing increased arousal, how frequently do you also experience fear (1 = *never*, 5 = *always*)?

An additional question was used to assess anxiety, fear, and disgust associated with sex: Overall, in the past 2 years, how frequently have you become anxious, fearful, or disgusted during sexual activity with a partner (1 = *not at all*, 5 = *always*)?

Sexual self-schemas. The Sexual Self-Schema Scale (Andersen & Cyranski, 1994) was used as a measure of one's perception of the self as a sexual being. This scale consisted of 50 trait adjectives (26 scored and 24 fillers) for which participants rated the degree to which each word described themselves on a 6-point scale ranging from 0 (*not at all descriptive of me*) to 6 (*very much descriptive of me*). The scale comprised two positive dimensions (romantic/passionate and open/direct) and one negative aspect (embarrassment/conservatism). Ten adjectives contributed to the romantic/passionate dimension: romantic, passionate, unromantic, warm, loving, feeling, sympathetic, arousable, stimulating, and revealing. The open/direct dimension comprised the following nine adjectives: direct, straightforward, frank, outspoken, broad-minded, experienced, casual, open-minded, and uninhibited. Finally, the embarrassment/conservatism aspect comprised seven adjectives: cautious, timid, self-conscious, prudent, embarrassed, conservative, and inexperienced. A total Sexual Self-Schema Scale score was calculated by summing the items from the positive factors and subtracting the sum of the items from the negative factor. Andersen and Cyranski (1994) reported an internal consistency of $\alpha = .82$ and test-retest reliability (2-week interval) of $r = .91$.

Depression. The Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979) was used to assess levels of depression. The BDI is a 21-item questionnaire that has been widely used to assess severity of depression. Scores are summed to provide an overall depression score. This scale has shown good internal consistency when used in a psychiatric population ($\alpha = .86$) and in a nonpsychiatric population ($\alpha = .81$; Beck, Steer, & Garbin, 1988). Test-retest reliability for psychiatric patients with varying time intervals (from 5 days to 1 month) has ranged from $r = .48$ to $r = .86$, and test-retest reliability for psychiatric patients with varying time intervals (from 1 hr to 4 months) has ranged from $r = .60$ to $r = .83$ (Beck et al., 1988). BDI scores have successfully differentiated psychiatric patients from nondepressed control participants and patients with dysthymic disorder from those with major depression (Beck et al., 1988).

Anxiety. We assessed levels of anxiety using the Beck Anxiety Inventory (BAI; Beck, 1988). The BAI is a 21-item questionnaire on which participants indicate the degree to which they are experiencing a variety of anxiety symptoms on a 4-point scale ranging from 0 (*not at all*) to 3 (*severely*). Scores are summed to provide an overall anxiety score. This scale has shown a high internal consistency ($\alpha = .92$), with item-total correlations ranging from .30 to .71. Test-retest reliability measured after a 1-week interval was adequate, $r = .75$ ($N = 83$). A significant difference

was found between the mean scores of patients with a primary anxiety disorder ($M = 24$) and nonanxious control participants ($M = 13$).

Procedures

The study involved a 2.5-hr session that was conducted inside a human sexual psychophysiology laboratory in a university setting. The study was conducted exclusively by female researchers. Participants were told that they would be participating in a series of studies aimed at understanding the way in which sexual information is organized and stored in memory and the quality of intimate interpersonal relationships among women both with and without a history of CSA. They were told that they were free not to answer any questions that they felt uncomfortable about and that they could withdraw from the study at any time without penalty. Participants were paid \$25.00 on completion of the study.

Participants completed a demographics questionnaire, the Sexual Self-Schema Scale (Andersen & Cyranski, 1994), the BDI (Beck et al., 1979), the BAI (Beck, 1988), the SFQ (Wenninger & Heiman, 1998), and the Sexual Abuse Questionnaire (Carlin & Ward, 1992). Participants completed the questionnaires alone in a private room.

Results

The Relation Between Sexual Abuse, Psychological Distress, and Sexual Self-Schemas

We conducted the following regressions using the guidelines provided by Baron and Kenny (1986) to test the mediator role of psychological distress (i.e., depression and anxiety) in the relationship between CSA and sexual self-schemas. Given that CSA cannot be randomly assigned to participants, interpretations of these results need to take into consideration that temporal precedence between CSA and psychological distress can only be hypothesized but not verified. Two separate linear regressions were conducted on CSA and the two scores for depressive and anxiety symptoms, with CSA being the predictor and scores of depressive and anxiety symptoms being the outcome variables. CSA significantly predicted 12.4% of the variance in depressive symptoms, $F(1, 104) = 15.68, p < .01$, and 9.0% of the variance in anxiety symptoms, $F(1, 104) = 10.85, p < .05$ (see Table 1).

Three hierarchical linear regressions were conducted separately to predict each of the three sexual self-schemas (romantic/passionate, open/direct, and embarrassment/conservatism). Each hierarchical regression comprised two steps. In the first step, CSA was the only predictor, and in the second step, depression and anxiety were added to the list of predictors (see Table 2). This method allowed assessment of whether depression and anxiety acted as mediators in the relationship between CSA and sexual self-

Table 1
Results for Linear Regression of Depression and Anxiety Regressed on CSA

Model	R ²	F(1, 104)	β	t(103)
Predicting depression CSA	0.12	15.68**	.36	4.0***
Predicting anxiety CSA	0.09	10.85*	.31	3.3***

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

Table 2
Results for the Hierarchical Regression of the Three Sexual Self-Schemas

Outcome	R^2	ΔR^2	β	$t(103)$
Romantic/passionate schema				
Step I	0.06*			
CSA			-.26	-2.64**
Step II	0.18***	0.13**		
CSA			-.13	-1.29
Depression ^a			-.33	-2.29*
Anxiety ^b			-.07	-.52
Open/direct schema				
Step I	-0.01			
CSA			-.06	-0.58
Step II	0.29	0.56		
CSA			-.01	-0.16
Depression ^a			.15	0.94
Anxiety ^b			-.33	-2.16
Embarrassment/conservatism schema				
Step I	-0.07			
CSA			-.05	-0.52
Step II	0.09**	0.11***		
CSA			-.17	-1.69
Depression ^a			.26	1.69
Anxiety ^b			.12	0.80

Note. Sexual Self-Schema Scale (SSS) Factor 1 = romantic/passionate; SSS Factor 2 = open/direct; SSS Factor 3 = embarrassment/conservatism; CSA = child sexual abuse.

^a As measured by Beck Depression Inventory. ^b As measured by Beck Anxiety Inventory.

* $p < .05$. ** $p < .01$. *** $p < .001$.

schemas. Results of the first model indicate that CSA significantly predicted 6.0% of the variance in the romantic/passionate schema, $F(1, 104) = 7.00$, $p < .05$, whereas the open/direct and the embarrassment/conservatism sexual self-schemas did not show a significant association with CSA. Women with a history of CSA appeared to have significantly lower scores in the romantic/passionate schema, $\beta = -.26$, $t(103) = -2.64$, $p = .01$. Adding depression and anxiety to the model (Step 2) increased the percentage of romantic/passionate schema explained to 18%, $\Delta F(2, 95) = 7.94$, $p < .01$. A review of the beta coefficients in the second model revealed that CSA no longer provided a unique contribution to the explanation of the romantic/passionate schema ($\beta = -.13$, $p = .20$). Also in this second model, depressive symptoms provided a unique explanation of the romantic/passionate schema ($\beta = -.33$, $p < .05$), suggesting that depressive symptoms may have explained the scores on the romantic/passionate schema independently from a history of CSA. Specifically, in this model, depression and the romantic/passionate sexual self-schema showed a moderate inverse relationship.

The Relation Between Sexual Abuse, Psychological Distress, Sexual Self-Schemas, and Negative Sexual Affect

Given that the relationship between CSA and sexual self-schemas was established in the previous analysis, we investigated whether the sexual self-schemas of CSA survivors predicted sexual functioning in this population. Separate t tests were conducted to investigate differences between women with and without a

history of CSA. As illustrated in Table 3, women with a history of CSA had significantly higher levels of depression, $t(103) = -3.96$, $p < .001$; anxiety, $t(103) = -3.29$, $p < .01$; negative sexual affect during sexual activities, $t(99) = -4.05$, $p < .001$; and lower scores on the romantic/passionate sexual self-schema, $t(99) = 2.83$, $p < .01$. Women with a history of CSA also reported more frequent feelings of anxiety, fear, and disgust during sexual activities in the previous 2 years, $t(103) = -3.25$, $p < .01$. The two questions regarding current sexual activities used a time frame that more closely matched the questions asked in the BDI and BAI; thus these questions were selected for the following analyses, and the questions regarding the previous 2 years were not included in the analyses. There were no significant relations at $p < .05$ between levels of sexual abuse and sexual desire, orgasmic ability, and sexual arousal. Means and standard deviations of sexuality variables (by abuse category) are presented in Table 3.

A three-step hierarchical linear regression was computed to predict negative sexual affect. In the first step, the predictor was CSA; in the second step, depressive and anxiety symptoms were added to the list of predictors; and in the third step, the predictors included CSA, depressive and anxiety symptoms, the romantic/passionate factor, and the interaction between the factor and CSA (CSA \times Romantic/Passionate Sexual Self-Schema = CSA/Schema). Depressive and anxiety symptoms were included in the second step to test whether the variables added in subsequent steps added to the explanation of variance in negative sexual affect. If schemas and a history of CSA were linked to negative sexual affect independently from depression and anxiety, then adding schemas to the model that already contained depression and anxiety would show a significant increase in R^2 . The CSA/schema variable was developed to assess the role of sexual self-schemas specific to CSA women. Twenty-nine women did not have complete data on all these questionnaires (CSA survivors = 13; healthy control participants = 14); thus, the following results were based on data from 90 women (see Table 4). The first step explained 11.2% of the variance in negative sexual affect, $F(1, 88) = 13.92$, $p < .001$, suggesting that CSA survivors had significantly greater negative sexual affect than healthy control participants. The second step, which used CSA and depressive and anxiety symptoms as predictors of negative sexual affect, explained 19.4% of the variance in negative sexual affect, showing a statistically significant increase in adjusted R^2 , $\Delta F(2, 86) = 5.70$, $p < .01$. This suggests that depression and anxiety contribute significantly to the explanation of negative sexual affect related to CSA. Specifically, levels of depression and anxiety were positively associated with greater scores in negative sexual anxiety. Finally, the third step—which included CSA, anxiety, depression, romantic/passionate sexual self-schema, and CSA/schema—explained 30.1% of the variance in negative sexual affect, which corresponded to a statistically significant increase in adjusted R^2 from the model tested in the second step, $\Delta F(2, 84) = 8.64$, $p < .001$. This last result indicates that the relationship between romantic/passionate sexual self-schema and negative sexual affect adds a significant explanation to negative sexual affect compared with the explanation provided by depressive and anxiety symptoms alone. A subsequent analysis of the beta coefficients in Step 3 showed an inverse relationship between romantic/passionate sexual self-schema and negative sexual affect ($\beta = -.40$, $p < .001$). The beta coefficient of this relationship indicated that lower

Table 3
Group Differences in Psychological Distress, Sexual Functioning, and Sexual Self-Schemas

Measure	Nonabused women		Sexually abused women		t(117)
	(n = 71)		(n = 48)		
	M	SD	M	SD	
Psychological distress					
Depression ^a	5.75	6.40	12.68	9.40	-3.96***
Anxiety ^b	5.22	5.10	10.75	9.40	-3.29**
Sexual functioning					
Sexual desire ^c	9.17	2.10	9.40	3.20	-0.44
Sexual arousal (past 2 years) ^d	4.23	0.80	4.00	0.90	1.29
Orgasm during masturbation (past month)	3.86	1.70	3.70	1.70	0.45
Orgasm with partner (past 2 years)	3.16	1.30	3.11	1.10	0.17
Negative sexual affect ^e	2.58	0.90	3.64	1.70	-4.06***
Negative sexual affect (past 2 years) ^f	1.97	0.80	2.64	1.18	-3.25**
Sexual self-schemas					
Romantic/passionate ^g	46.55	5.40	42.19	7.80	2.83**
Open/direct ^g	38.87	7.10	37.99	8.20	0.52
Embarrassment/conservatism ^g	22.03	6.40	21.31	5.10	0.60

^a As measured by Beck Depression Inventory, score range = 0–63. ^b As measured by the Beck Anxiety Inventory, score range = 0–63. ^c Sum of three Likert questions in reference to the past month that used an item response format ranging from 1 (*not at all*) to 5 (*daily or more than once a day*). ^d Sum of two Likert questions in reference to the past 2 years that used an item response format ranging from 1 (*not at all*) to 5 (*daily or more than once a day*). ^e Sum of two items: During a sexual interaction when you are experiencing increased arousal, please indicate how frequently you also experience the following emotions: (a) anger and (b) fear (ranging from 1 [*never*] to 5 [*always*]). ^f Overall, in the past 2 years, how frequently have you become anxious, fearful, or disgusted during sexual activity with a partner (1 = *not at all*, 5 = *always*)? ^g As measured by the Sexual Self-Schema Scale, romantic/passionate and open/direct score range = 0–54; embarrassment/conservatism score range = 0–42.
** *p* < .01. *** *p* < .001.

levels of romantic/passionate sexual self-schema were associated with more negative sexual affect. This association was independent from the effects of the other variables in the model, suggesting that the explanation of negative sexual affect provided by schemas is independent from depressive and anxiety symptoms.

Table 4
Results for the Hierarchical Regression of Negative Sexual Affect

Step	R ²	ΔR ²	β	t(87)
I	0.11***			
CSA			.34	3.55**
II	0.19***	0.09**		
CSA			.23	2.33*
Depression ^a			.13	0.92
Anxiety ^b			.21	1.48
III	0.30***	0.13***		
CSA			.07	0.58
Depression ^a			.01	0.04
Anxiety ^b			.20	1.51
SSS Factor 1 ^c			-.40	-4.09***
SSS × CSA			.17	1.55

Note. CSA = child sexual abuse; SSS = Sexual Self-Schema Scale.
^a As measured by the Beck Depression Inventory. ^b As measured by the Beck Anxiety Inventory. ^c SSS Factor 1 = passionate/romantic.
* *p* < .05. ** *p* < .01. *** *p* < .001.

The interaction variable CSA/schema did not provide a unique contribution to the model, indicating that the relationship between romantic/passionate schema and negative sexual affect is not unique to women with a history of CSA. The significance of the CSA beta coefficient disappeared in the third step of the regression, providing initial evidence for the mediator role of passionate/romantic sexual schema in the relationship between CSA and negative sexual affect. Further evidence for the mediator role of the passionate/romantic sexual schema was provided by a Sobel test, *z* = -3.06, *p* < .005.

Discussion

On the basis of past studies that have suggested a close relationship between sexual functioning and sexual self-schemas (Andersen & Cyranowski, 1994), in addition to studies that have indicated change in schemas because of traumatic experiences, we hypothesized that sexual self-schemas associated with a history of CSA may partially explain the sexual dysfunction experienced by this population. The results of this study provide initial support for our hypothesis. Specifically, women with a history of CSA were observed to have higher levels of negative sexual affect as compared with women with no history of CSA, and their romantic/passionate sexual self-schema explained the negative sexual affect independently from depression and anxiety. Although depression and anxiety associated with CSA contributed to the negative

sexual affect experienced by the survivors, it appears that the romantic/passionate sexual self-schema explained the negative sexual affect above and beyond psychological distress. In particular, lower levels of romantic/passionate sexual self-schema were associated with more negative sexual affect. A potential explanation is that women who have experienced CSA are less able to view themselves as passionate and romantic because sexuality has become linked to negative affect. If this hypothesis is supported in future studies, then treatments that aim at diminishing the link between sexuality and negative affect might focus on helping CSA survivors to increase their identity as women who are passionate or romantic.

This study did not find a significant difference in sexual arousal, orgasm, and desire between women with and without a history of CSA. The lack of a significant relationship between CSA and these sexual variables differs from earlier reports of decreased sexual desire, arousal, and orgasm difficulties among CSA survivors (for a review, see Loeb et al., 2002). Differences in participant sampling may provide one explanation for the discrepancy between this and earlier studies. Prior studies that have reported a decline in sexual function have generally sampled among abuse victims who were currently seeking therapy (e.g., Briere, 1984; Langmade, 1983; Tsai, Feldman-Summers, & Edgar, 1979). To the extent that only the most seriously affected victims seek psychological help, these earlier studies may naturally have selected for women with more severe sexual pathology. This hypothesis is consistent with Tsai et al.'s (1979) finding that CSA victims who considered themselves "well-adjusted" and who had not sought therapy did not differ from control participants on measures of sexual adjustment; only those victims who sought therapy differed significantly. Another potential explanation relates to the limited number of questions that were used to assess sexual functioning in the current study. Since data collection for the current study occurred, a number of more comprehensive standardized questionnaires with strong psychometrics have been introduced (e.g., the Female Sexual Function Index by Rosen et al., 2000) and could be used to more extensively examine this study's hypotheses.

This study was based on the premise that positive sexual self-schema would be positively related to positive past sexual experiences because schemas facilitate sexual or romantic involvement and negatively relate to a history of traumatic sexual events (Andersen & Cyranowski, 1994). Consistent with Andersen and Cyranowski's (1994) theory, compared with women with no history of sexual abuse, women with a history of CSA showed a lower score on the positive, romantic/passionate sexual self-schema, which was associated with higher scores of negative sexual affect. These results are also consistent with the findings reported by Reissing et al. (2003), who reported a negative relation between romantic/passionate sexual self-schema and a history of sexual abuse. The association between romantic/passionate sexual self-schema and negative sexual affect corroborates past research that has pointed at differences in the relationship between positive affect and sexual activities between CSA survivors and healthy control participants.

Andersen and Cyranowski (1994) failed to find support for their theory that sexual self-schemas would differ between sexual abuse survivors and healthy control participants. This contradicts the results noted in the current study of differences in romantic/passionate sexual self-schema observed between CSA survivors

and healthy control participants. Differences in statistical methods, definition of sexual abuse, self selection, and participant sampling between studies may explain the discrepant results. In the current study, a dichotomous sexual abuse variable was calculated on the basis of a wide variety of unwanted sexual experiences; Andersen and Cyranowski defined traumatic sexual experiences strictly in terms of exposure to sexual exhibitionism and sexual touching. Also, in our study, relations between CSA and sexual self-schemas were examined separately for each of the three self-schemas. Andersen and Cyranowski tested the relation between sexual abuse and sexual self-schemas by examining potential differences in abuse experiences between women with positive schemas (i.e., those who scored high on the romantic/passionate and open/direct dimensions and low on the embarrassment/conservatism dimension) and women with negative schemas (i.e., those who scored low on the romantic/passionate and open/direct dimensions and high on the embarrassment/conservatism dimension).

With regard to differences in participant sampling between studies, Andersen and Cyranowski (1994) sampled among unmarried, undergraduate female participants ($M = 19$ years of age), of which approximately 20% reported having experienced unwanted sexual touching. We used a community sample with a substantially higher mean age ($M = 28$ years) and a higher ratio (approximately 50%) of reported unwanted sexual touching as well as more severe forms of sexual abuse. Possibly, the difference in the romantic/passionate sexual self-schema of undergraduate students with a history of CSA differs from that of women from the community with a history of CSA because of differences in the severity of sexual abuse experienced by these two populations. This would be consistent with the fact that, in the current study, the romantic/passionate dimension scores were significantly and negatively correlated with both depression, $r(47) = -.48, p < .001$, and anxiety, $r(47) = -.40, p < .001$, for women with a history of CSA. Thus, higher distress associated with the abuse was found to be connected with lower positive sexual self-schemas.

It should be noted that self-selection biases may have also played a role in the results observed in this study. Women in the current study knew that the purpose of the study was to examine potential relations between CSA and adult sexuality. This apparent hypothesis may have naturally selected for women with a history of CSA who were most negatively affected by their abuse experiences and who were motivated to verbally express their distress. This may explain why sexuality in the current study was consistently associated with measures of negative affectivity among women who were sexually abused. Clearly this is a limitation of the current study, in that there may be a tangible difference between survivors who allow themselves to be part of a sexual study and survivors who would not be willing to participate in such a study.

The current study did not find a significant relationship between embarrassment/conservatism sexual schema and a history of CSA. This can be interpreted as an impact of CSA only on the positive view of sexuality (i.e., romance and passion), whereas the negative view (i.e., embarrassment and conservatism) remains unaltered. An alternative explanation can be that the negative sexual self-schema that has been affected by women with a history of CSA is not captured by the adjectives used in the scale developed by Anderson and Cyranowski (1994). The use of a self-report measure for assessing sexual schemas is clearly a limitation of the

current study. A qualitative approach may be able to unveil aspects of the sexual schemas specific to individuals with a history of CSA not addressed by self-reported questionnaires. It should also be noted that an age cutoff of 16 years was used in the definition of CSA in the current study, and this may not provide a complete picture of the impact of sexual abuse experienced during adolescence, which is more commonly defined as extending to age 18 years.

In conclusion, this study provides preliminary evidence that in CSA survivors, low levels of romantic/passionate sexual self-schema may mediate negative sexual affect during sexual arousal above and beyond the effect of depression and anxiety. The reason why romantic/passionate sexual self-schemas may be altered among women with a history of CSA is unclear. One possibility is that women may be linking feelings of romance and passion with intimacy needs—a domain of sexuality that has long been shown to be adversely affected among CSA survivors (Merrill, Guimond, & Thomsen, 2003). Future studies that use a combination of explicit (i.e., questionnaires) and implicit (i.e., reaction time, implicit association test, unconditioned responses) methods are needed to further explore the components of the negative sexual affect and impaired romantic/passionate sexual self-schemas noted among CSA survivors.

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