

A history of childhood sexual abuse (CSA) is strongly associated with adult depression. The goal of the present study was to explore potential mediators of the CSA-depression link. The potential mediators were variables known to be associated with depression: interpersonal problems, gender role orientation, sociotropy, and self-silencing. The participants were 109 women and 83 men recruited from the community, approximately one third of whom had a history of CSA. The results indicated that gender role orientation, sociotropy, and self-silencing were not associated with a history of CSA. However, both men and women with a history of CSA reported more interpersonal problems than did individuals without this history. Whereas women reported being distant and controlling, men reported lacking assertiveness and taking too much responsibility in their relationships. These interpersonal variables partially mediated the link between CSA and depressive symptoms. Thus, in part, CSA survivors may be at risk for depression because they experience interpersonal problems.

Mediators of the Link Between Childhood Sexual Abuse and Adult Depressive Symptoms

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There is strong evidence that a history of childhood sexual abuse (CSA) is associated with adult depression. In community samples, women with a history of CSA report more depressive symptoms (see reviews by Alter-Reid, Gibbs, Lachenmeyer, Sigal, & Massoth, 1986; Beitchman et al., 1992), and are more likely to meet diagnostic criteria for depression (Bifulco, Brown, & Adler, 1991) than are women without this history. Even in clinical samples, depressive symptoms are higher among women with a history of CSA than

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among non-CSA patients (Braver, Bumberry, Green, & Rawson, 1992; Bryer, Nelson, Miller, & Krol, 1987). CSA especially seems to be associated with chronic or recurrent depression (Andrews, 1995), and with early onset dysthymia (Lizardi et al., 1995). The overlap between CSA and depression is substantial: One study of 119 diagnosed depressed women found that 44% reported a history of CSA (Murrey et al., 1993).

The CSA-depression link may help us to comprehend one longstanding mystery: Why depression is more prevalent among women than among men (Nolen-Hoeksema, 1987). CSA is more prevalent among girls than boys. Although abuse rates vary depending on the definition of CSA and the method used to elicit this information, rates are always higher among girls and women than among boys and men (Finkelhor, 1986). For instance, Cutler and Nolen-Hoeksema (1991) reviewed only studies that included samples of both sexes. They found that the rates of CSA in female samples ranged from 7% to 19%, whereas the rates for males ranged from 3% to 7%. Thus, they speculated that part of the gender difference in depression prevalence may arise because more females than males experience sexual abuse as children.

Whiffen and Clark (1997) tested this hypothesis in a sample of adults seeking outpatient psychotherapy. Consistent with previous research, the women reported higher levels of depressive symptoms than did the men, and they were more likely than the men to have a history of CSA. When both CSA and sex were entered into a regression equation to predict depressive symptoms, the association between sex and depressive symptoms was reduced to a nonsignificant value. This finding indicates that a significant proportion of the gender difference in depressive symptoms can be attributed to the fact that girls more often are sexually abused than boys. However, it is important to emphasize that the link between CSA and depression held for men as well as for women. Men who had been sexually abused as children reported levels of depression that were just as high as those reported by women with a CSA history.

This study raised an important and interesting question: How are CSA and adult depression linked? Most likely, the association between CSA and adult psychopathology is mediated by some variable that either was present at the time of the abuse or that developed as a direct result subsequently (Briere & Runtz, 1988). If we wish to explain the link with depression specifically, then one place to start looking for such mediators would be with variables that are known to be vulnerability factors in depression. In the present study, we focused on two variables that are clearly linked to depression: interpersonal problems and gender role socialization. We hypothesize that abusive experiences during childhood lead to interpersonal problems and to the development of personality traits that are associated with the feminine gender role,

which then predispose both men and women with abuse histories to experience depressive symptoms.

There is solid evidence that depression is associated with interpersonal difficulties with spouses, children, and social network members (cf. review by Gotlib & Whiffen, 1991). In particular, depression shows a strong and consistent correlation with marital distress, in both community (e.g., Coleman & Miller, 1975; Olin & Fenell, 1989) and clinical samples (e.g., Weissman, 1987; Weissman & Paykel, 1974). The interactions of couples in which one partner is depressed are marked by tension and hostility (e.g., Biglan et al., 1985), and both partners experience the marriage as conflicted and distressed (e.g., Gotlib & Whiffen, 1989). Whereas most of the research on marital distress and depression has focused on conflict, couples with a depressed spouse also are unable to provide emotional support to one another (Beach, Sandeen, & O'Leary, 1990). Brown and Harris (1986) demonstrated that the lack of a confiding relationship with a husband or boyfriend is a significant vulnerability factor in women's depression. This finding is consistent with a parallel literature on social support (cf. Cohen & Wills, 1985, for a review). Marital distress has a complex relationship to depression in that, in different individuals, it can precede, maintain, or follow from a depressive episode (Gotlib & Hooley, 1988). However, poor marital relations and spousal criticism are clearly associated with symptom worsening and relapse (cf. review by Coiro & Gottesman, 1996).

A history of CSA appears to have an adverse impact on the quality of adult intimate relationships. Female CSA survivors report having difficulty forming trusting, intimate relationships with men (Gorcey, Santiago, & McCall-Perez, 1986; Mullen, Martin, Anderson, Romans, & Herbison, 1994), and they report avoiding the development of close adult relationships because of fears about rejection (Alexander, 1993). Not surprisingly, CSA survivors are more likely to divorce than are women without this history (Mullen et al., 1994) or to have never married or cohabited (Bifulco et al., 1991). Thus, low-quality adult relationships may mediate the association between CSA and depression.

Whiffen, Judd, and Aube (1999) tested this hypothesis in a sample of 60 women recruited from the community. All of the women were married or cohabiting in a heterosexual relationship, and 37% reported a history of CSA involving physical contact with the perpetrator. The women reported on various aspects of their marriages, including levels of conflict and intimacy. On average, the CSA survivors perceived their marriages to be just as intimate and as nonconflictual as did the nonsurvivors. Thus, in this sample, the link between CSA and depression was not accounted for by CSA survivors'

greater propensity to form poor quality relationships. However, relationship quality moderated this association. Specifically, CSA survivors were more vulnerable than nonsurvivors to feeling depressed if they perceived their marriages to be lacking intimacy. Thus, the well-established link between the quality of intimate relationships and depression appears to be amplified among CSA survivors.

The CSA survivors in this sample were in stable and generally satisfactory relationships, which may account for the failure to find that relationship quality mediated the link between CSA and depressive symptoms. As we observed earlier, survivors have difficulty forming stable, intimate relationships as adults. Thus, interpersonal difficulties may play a mediating role in the general population of CSA survivors, an association that would be missed in a sample of cohabiting and married women. The first goal of the present study was to reassess the mediating role of interpersonal relations in an unrestricted, community sample of men and women where the CSA survivors' ability to form intimate relationships would be more variable than it had been in the previous sample. We chose to measure interpersonal difficulties rather than the quality of existing close relationships, so that we could sample both individuals who were and were not presently involved in a romantic relationship. We hypothesized that the tendency to experience interpersonal problems would mediate the link between CSA and depression in both men and women.

The second mediator we examined was gender role. Two distinct aspects of gender role are related to depression: (a) the lack of masculine traits and (b) the possession of negative feminine traits. First, the socialization of boys, but not of girls, stresses the development of instrumental, self-assertive traits such as independence and decisiveness (Spence, Helmreich, & Stapp, 1974), which research shows are important in protecting both men and women from depressive symptoms (Whitley, 1984). Studies consistently find that individuals who possess few instrumental traits have lower self-esteem and experience higher levels of depressive symptoms (Aube & Koestner, 1992; Bassoff & Glass, 1982; Sanfilipo, 1994). The second depressogenic aspect of the feminine gender role is women's orientation to relationships. Women are more likely than men to focus on nurturing and caring for others, and this nurturance has positive outcomes in terms of relationship functioning (Helgeson, 1994). However, when this caring is carried to an extreme, such as when the focus on others occurs to the exclusion of concern for oneself, women report higher levels of depressive symptoms (Helgeson, 1994).

Two constructs in the depression literature appear to capture this excessive focus on relationships: "silencing the self" and "sociotropy." Jack (1991) pro-

posed that women become clinically depressed when they self-sacrifice extensively for what they perceive to be the needs of significant others. Negative feelings about others, such as anger, are suppressed or silenced because anger is thought to threaten attachments to significant others. Silencing scores are strongly correlated with depressive symptoms among women (Jack & Dill, 1992), even after relationship satisfaction is taken into account (Thompson, 1995). A similar construct is that of sociotropy. Sociotropic individuals are excessively invested in gaining the approval of significant others, and are thought to become depressed when they fail to secure the approval of a significant other or when an important relationship fails (Beck, 1983). A recent review of the empirical support for this hypothesis concluded that depressive symptoms do appear to worsen when sociotropic individuals experience negative interpersonal events (Coyne & Whiffen, 1995).

We propose that both the lack of instrumental traits and the overvaluation of relationships will be associated with a history of CSA. We suggest that early experiences with a perpetrator who imposes his/her will on a powerless child will mitigate the development of instrumental traits such as self-assertion, and encourage the development of sociotropy and self-silencing as a result of the child's attempts to appease the perpetrator. Thus, we propose that the CSA-depression link will be mediated, in both men and women, by a lack of masculine traits and by the presence of a negative feminine trait, the overvaluation of relationships.

METHOD

Participants and Procedure

Participants were recruited through advertisements in community newspapers in Ottawa and Vancouver, Canada, and in Rochester, New York. The advertisements asked for individuals interested in a study of "relationships and emotional distress." Interested individuals telephoned our labs for further information. If an individual wished to participate, a questionnaire packet was mailed to his/her home address. The package included instructions and a stamped, self-addressed envelope. With this procedure, we recruited 114 women and 85 men. Among those who were sent questionnaire packages, 70%, 69%, and 76% in Vancouver, Ottawa, and Rochester, respectively, returned their questionnaires. However, 5 women and 2 men did not answer the CSA questions, leaving a final sample of 109 women and 83 men.

Measures

Background Information Questionnaire. Information about participants' employment, education, family income, marital status, and number of children was elicited.

CSA. A history of CSA was assessed with a list of specific sexual behaviors, ranging from a sexualized hug to intercourse (Finkelhor, 1979). Participants were asked to indicate which, if any, they had experienced before the age of 14 with someone who was 5 or more years older than them. Participants were advised that they should not report consensual sexual acts. Research indicates that individuals will volunteer this information if asked directly (Stinson & Hendrick, 1992). Individuals who reported activities that involved physical contact with the perpetrator were classified as CSA survivors. We also used this measure to create a continuous score indexing the severity of sexual abuse by summing the number of items endorsed by participants. Scores on the continuous scale can range from 0 to 10, indicating none to multiple forms of abuse. The continuous scale had alphas of .90 and .92 for the female and male participants in this sample, respectively.

In addition, individuals who reported sexually abusive experiences were asked their age at the onset of the abuse, the duration of the abuse, their relationship to the perpetrator, and whether they had been abused by a second person before the age of 14.

Inventory of Interpersonal Problems (IIP). The IIP was designed to assess common interpersonal problems that may be associated with emotional distress (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). The items were derived from intake interviews with patients seeking psychotherapy. Sample items include "It is hard for me to let others know when I am angry" and "I put other peoples' needs before my own too much." Participants rated, on a 3-point scale, how characteristic each interpersonal problem was of them. Factor analysis of the IIP items produced six subscales: Hard to Be Assertive, Hard to Be Sociable, Hard to Be Intimate, Hard to Be Submissive, Too Responsible, and Too Controlling (Horowitz et al., 1988). Internal consistency estimates ranged from .82 to .94, and test-retest reliabilities ranged from .80 to .90 over a 10-week period (Horowitz et al., 1988).

In our sample, the alphas for five of the six subscales were acceptable. They ranged from .70 to .92 for the females and from .81 to .93 for the males in our sample. However, the subscale Too Controlling had very low internal

consistency for both sexes in this sample, with alphas of .27 for females and .28 for males. Therefore, we deleted problematic items ($n = 4$) until the internal consistency of the subscale was satisfactory. The remaining items on the subscale were 51, 57, 61, 64, and 70. The modified subscale had alphas of .81 and .76 for females and males, respectively.

Extended Personal Attributes Questionnaire (EPAQ). The EPAQ measures personality characteristics that (a) have been judged by college students to be more typical of one gender than the other and (b) are more likely to be endorsed by one gender than the other (Spence et al., 1974). Thus, this is a measure of the extent to which individuals perceive themselves to conform to traditional gender role stereotypes. Items are rated on 5-point bipolar scales. The Masculine (M) scale consists of eight traits reflecting an instrumental agentic orientation, such as "independent" and "competitive." The Feminine (F) scale contains eight traits reflecting an interpersonal expressive orientation, such as "gentle" and "helpful to others." The Negative Masculinity (M-) scale consists of eight items that are considered socially undesirable in both genders, but are attributed more frequently to men than to women, such as "arrogant" and "dictatorial." The Negative Femininity (F-) subscale is a four-item scale assessing socially undesirable traits that are more commonly attributed to women than to men, such as "servile" and "gullible." The test authors reported acceptable internal consistencies for the M, F, and M- subscales, with alphas ranging from .73 to .85. However, the alpha coefficient for the F- subscale was .51 in the development sample. In the present sample, the subscales demonstrated similar internal consistencies, with alpha coefficients ranging from .72 to .81 on the M, F, and M- subscales. The F- subscale was unreliable for both sexes, with alpha coefficients of .50 and .62 for females and males, respectively. These values could not be improved with item deletion. Therefore, we decided not to use the F- subscale in our data analyses.

Silencing the Self Scale (STSS). The STSS (Jack, 1991) was used to measure self-sacrifice and inhibited self-expression in intimate relationships. The STSS has good internal consistency and test-retest reliability (Jack & Dill, 1992). The same study reported evidence of construct validity, in that the scores of college women were lower than those of a sample of battered women. In our sample, the alphas for the female and male participants were .89 and .88, respectively.

Sociotropy (SAS). The sociotropy subscale of the SAS (Beck, Epstein, Harrison, & Emery, 1983) was used to measure excessive investment in inter-

personal relationships. The sociotropy scale consists of 30 statements about relationships and interpersonal approval. Participants rated their agreement with each statement on a 5-point scale. The SAS has good psychometric properties (Beck et al., 1983). The alphas for the female and male participants in our sample were .93 and .91, respectively.

Beck Depression Inventory (BDI). The BDI (Beck, Rush, Shaw, & Emery, 1979) was used to measure the level of depressive symptoms. In both psychiatric and student samples, the BDI has shown good convergent validity with psychiatric ratings of depression severity (Beck, Steer, & Garbin, 1988). In our sample, the alphas for the female and male participants were .93 and .89, respectively.

RESULTS

Comparison of Female and Male CSA Survivors

Individuals were classified as CSA survivors if they reported unwanted sexual contact before the age of 14 with a perpetrator who was at least 5 years older. Thirty-seven percent of the women and 25% of the men met these criteria. This was not a significant difference, $\chi^2(1, N = 192) = 2.82, p > .05$. We compared the male and female CSA survivors on key aspects of their abuse with *t* tests for the continuous variables and with χ^2 tests for the categorical variables (see Table 1). The sexes did not differ on these variables.

Group Comparisons on the Demographic Variables

In Table 2 we present the means and standard deviations for the demographic and study variables, separately for the CSA survivors and nonsurvivors, and for the men and women. The majority of the participants were Caucasian and in their early 30s. Most had completed secondary school and more than half were employed or homemakers. The average income in the sample was near the median for a single person in Canada. The majority of participants had been married, cohabiting, or dating someone steadily for approximately 3 years. The majority did not have any children. Thus, this is a community sample of young, working adults.

To assess differences among the four groups, we analyzed the continuous variables with two-way (Sex \times CSA Status) ANOVAs. Only significant *F*

TABLE 1: Abuse Characteristics in Male and Female Childhood Sexual Abuse Survivors

	<i>Men (n = 21)</i>		<i>Women (n = 40)</i>		$v\chi^2$
	M	SD	M	SD	
Age at onset	9.53	4.3	7.68	3.9	1.62
Severity	5.71	2.4	4.70	2.3	1.56
Single abuser (%)	58		65		<1
Abused by family member (%)	53		49		<1
Duration > 1 year (%)	35		57		2.18

NOTE: None of these comparisons was significant.

values are reported below. Categorical variables were analyzed with χ^2 tests. For these variables, we assessed the association between sex and CSA status at each level of the dependent variable. These analyses produced a handful of demographic differences. There was one significant main effect for sex: Female participants reported an average family income that was \$10,000 (Canadian) more than the average family income reported by the male participants, $F(1, 158) = 6.46, p < .05$. There also was one significant main effect for CSA history: The CSA survivors had, on average, 1 year less of postsecondary education than did nonsurvivors, $F(1, 188) = 4.45, p < .05$. Finally, there were three significant Sex \times CSA Status interactions, all of which indicated that the male CSA survivors differed from the other participants. They tended to be older, $F(1, 188) = 8.43, p < .01$, and to have more children, $F(1, 181) = 6.07, p < .05$. They also were less likely to be employed, either full- or part-time, $\chi^2(1, n = 77) = 3.62, p < .05$.

The demographic differences between the CSA survivors and the other participants would be problematic if these variables also were associated with depressive symptoms. For women, education level was not correlated with BDI scores. Therefore, there was no need to control for education in analyses predicting women's depressive symptoms. Among the men, lower levels of education and unemployment were both associated with more depressive symptoms. Thus, in subsequent analyses predicting depression levels, we controlled for education and unemployment for the male participants only.

CSA Group Comparisons on the Study Variables

We compared the four groups on the study variables with separate two-way (Sex \times CSA Status) MANOVAs on the subscales of the IIP, the

TABLE 2: Comparison of the Male and Female CSA Survivors and Nonsurvivors on the Demographic and Study Variables

	<i>CSA Survivors</i>				<i>Non-CSA Survivors</i>			
	<i>Men</i>		<i>Women</i>		<i>Men</i>		<i>Women</i>	
	<i>(n = 21)</i>		<i>(n = 40)</i>		<i>(n = 62)</i>		<i>(n = 69)</i>	
	M	SD	M	SD	M	SD	M	SD
Demographics								
Age (years)	38.62	12.4	31.05	8.8	30.00	11.0	32.81	12.0
Caucasian (%)	90		69		81		84	
Education (years)	12.43	2.4	14.75	7.1	14.94	2.4	15.55	5.5
Family income (thousands) ^a	22	10	43	51	26	22	32	24
Employed full- or part-time (%)	33		51		54		54	
Married or cohabiting (%)	62		65		28		46	
Length of present relationship (years)	4.39	6.5	3.33	6.7	5.07	8.4	1.68	1.7
Number of children	1.40	1.8	0.82	1.1	0.39	0.8	0.71	1.1
Study variables								
IIP subscales^b								
Hard to Be Assertive	0.84	0.3	0.85	0.4	0.60	0.5	0.73	0.4
Hard to Be Sociable	0.92	0.4	0.75	0.5	0.59	0.4	0.69	0.4
Hard to Be Intimate	0.68	0.4	0.45	0.3	0.49	0.4	0.39	0.3
Hard to Be Submissive	0.84	0.5	0.61	0.4	0.57	0.4	0.54	0.4
Too Responsible	0.93	0.4	0.83	0.5	0.57	0.4	0.71	0.4
Too Controlling	0.64	0.5	0.44	0.5	0.43	0.4	0.32	0.4
EPAQ subscales								
Masculine	28.33	5.7	26.05	6.2	29.15	5.0	27.37	6.0
Feminine	31.52	4.6	32.72	3.9	30.11	4.0	33.18	4.5
Negative Masculinity	21.48	5.7	19.62	4.5	22.57	5.1	19.31	5.6
Overvaluing relationships								
Sociotropy	91.81	22.0	89.41	24.3	85.16	19.2	88.31	20.7
Silencing the self	82.86	17.1	74.69	16.5	76.93	17.7	71.48	20.8

NOTE: CSA = Childhood Sexual Abuse; IIP = Inventory of Interpersonal Problems; EPAQ = Extended Personal Attributes Questionnaire.

a. Income reported in Canadian dollars.

b. IIP subscale scores are reported as averages across the items.

subscales of the EPAQ, and the two measures of overvaluation of relationships. The means and standard deviations on these variables are reported in Table 2. The MANOVA on the IIP subscales produced significant effects for sex, $F(6, 183) = 2.80, p < .05$, and for CSA status, $F(6, 183) = 2.53, p < .05$, but not for the Sex \times CSA interaction, $F(6, 183) < 1$. Inspection of the univariate F values indicated that there were significant sex differences on the subscales Hard to Be Intimate, Hard to Be Submissive, and Too Controlling.

Men reported more difficulties in these domains than did women. All of the IIP subscales showed significant differences as a function of CSA status, with CSA survivors reporting more interpersonal difficulties than nonsurvivors.

The MANOVA on the EPAQ subscales produced a significant main effect for sex, $F(3, 183) = 6.42, p < .0001$, but no effect for CSA, $F(3, 183) < 1$, and no Sex \times CSA interaction, $F(3, 183) < 1$. Inspection of the univariate F values showed that the sexes differed on all three of the EPAQ subscales. Men reported higher levels of masculinity and negative masculinity and lower levels of femininity than did women. All of these differences were expected and consistent with previous research. However, contrary to our prediction, being a CSA survivor was not associated with gender role orientation.

Finally, the MANOVA on the two measures of overvaluation of relationships produced a significant main effect for sex, $F(2, 187) = 4.00, p < .05$, but no main effect for CSA status, $F(2, 187) = 1.24, p > .05$, and no Sex \times CSA interaction, $F(2, 187) < 1$. The univariate F values indicated that the sexes differed only on silencing the self: Men reported higher levels of silencing than did the women. This finding is consistent with previous research (Jack & Dill, 1992).

To summarize, analyses indicated that CSA survivors, both males and females, differed from nonsurvivors in that they reported more interpersonal problems of all kinds. Thus, interpersonal problems may mediate the association between CSA and depressive symptoms. Contrary to our hypothesis, CSA survivors were not more likely than nonsurvivors to lack instrumental traits, nor were they more likely to overvalue relationships. Thus, these variables cannot mediate the CSA-depression link.

Reduction of the IIP Subscales

Inspection of the zero-order correlations indicated that the IIP subscales tended to be moderately to highly intercorrelated for both sexes. These intercorrelations could present collinearity problems in the multiple regression analyses. Thus, we submitted the IIP subscales to a Principal Components Analysis (PCA) to find underlying dimensions that were less strongly intercorrelated. Initially, the PCAs were done separately for the men and women. However, the separate analyses produced identical results, so the results of the PCAs conducted on the full sample are reported below.

A PCA with varimax rotation on the six subscales of the IIP produced a two-factor solution that accounted for 76% of the variance. Three subscales, Hard to Be Submissive, Too Controlling, and Hard to Be Intimate, loaded on the first factor that we labeled *Distant Control*. The subscales, Hard to Be Assertive and Too Responsible, loaded on the second factor that we labeled

Inhibited. The subscale Hard to Be Sociable loaded highly on both factors, so it was excluded from further analyses. Composite scores on the two factors were obtained by calculating participants' *z* scores on each subscale and adding the *z* scores together. *z* scores were calculated separately for men and women because we previously found sex differences on some of the subscales. Depressive symptom levels correlated significantly with the composite variables for both sexes.

Do Interpersonal Problems Mediate the Association Between CSA and Depressive Symptoms?

According to Baron and Kenny (1986), the following conditions must be met for mediation to be demonstrated: (a) CSA must be correlated with depressive symptoms, (b) interpersonal problems must be correlated with CSA, and (c) when CSA and interpersonal problems are entered simultaneously into a multiple regression (MR) equation predicting depressive symptoms, the partial correlation between CSA and depressive symptoms must be smaller than the zero-order correlation. We tested for these conditions with a series of MRs, using severity scores to measure CSA. Because the sexes differed from each other demographically, we analyzed our data separately for males and females. In addition, because the male survivors differed from the other men in ways that could influence depression levels, we controlled for unemployment and education level in their MRs.

Analysis of the Women's Data

Among the women, CSA was significantly correlated with depressive. Our MANOVA also indicated that CSA was associated with interpersonal problems. Next, we regressed CSA severity scores onto the two IIP composite scores, Distant Control and Inhibited (see Table 3). The MR equation was significant. More severe CSA was associated with greater difficulties being distant and controlling in relationships. Next, we tested the hypothesis that Distant Control mediates the association between CSA and depressive symptoms. An MR equation was constructed with both CSA severity and Distant Control entered as predictors of depressive symptoms (see Table 4). This equation was significant, and both CSA severity and Distant Control contributed significantly. Higher levels of depression among women were associated with more severe CSA and with greater difficulty being distant and controlling in relationships. Inspection of the partial correlation between CSA and depressive symptoms indicated that Distant Control partially mediated

TABLE 3: Regression of Childhood Sexual Abuse Onto the Hypothesized Mediators

	r	ΔR^2	F(<i>cha</i>)	β
Women's analyses				
Block of predictors		.06	3.45*	
Distant Control	.25**			.24*
Inhibition	.10			.02
Men's analyses				
Step 1		.17	7.84***	
Unemployment	.36**			.30**
Years of education	-.29**			-.20
Step 2		.10	5.02**	
Distant Control	.29**			.15
Inhibition	.34**			.23*

NOTE: $F(\text{cha})$ = the change in F associated with this step in the HMR [AUTHOR: WHAT DOES HMR MEAN?].

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

the association between CSA and depressive symptoms because the partial correlation was smaller than the zero-order correlation ($pr = .20, p < .05$). However, this correlation still was significant, which indicates that the association between CSA and depressive symptoms is not entirely accounted for by CSA survivors' propensity to report interpersonal difficulties.

Analysis of the Men's Data

Among the men, CSA was correlated with depressive symptoms (see Table 4), and our MANOVA indicated that CSA also was associated with interpersonal problems. Next, we regressed CSA severity scores onto problems with Distant Control and Inhibition, while controlling for employment status and education (see Table 3). In the first step, both demographic variables were entered. However, only unemployment was significantly associated with CSA severity. More severely abused men were more likely to be unemployed. Interpersonal problems also contributed significantly to the explained variance in CSA severity. Problems with Inhibition were significantly associated with CSA, above and beyond the effects of unemployment. Thus, men with a history of CSA reported feeling unassertive and feeling that they take too much responsibility in relationships. Finally, we entered both CSA severity scores and Inhibition into an MR equation predicting BDI scores, while controlling for employment status and education (see Table 4). Unemployment was significantly associated with depressive symptoms for men. As a block, Inhibition and CSA severity contributed additionally to the

TABLE 4: Regression of Depressive Symptoms Onto Childhood Sexual Abuse (CSA) and the Proposed Mediators

	r	ΔR^2	F(cha)	β
Women's analyses				
Step 1		Not entered ^a		
Years of education	-.16			
Step 2		.37	30.6***	
CSA	.30**			.16*
Distant Control	.59**			.55***
Inhibition	.57**	Not entered ^a		
Men's analyses				
Step 1		.13	5.86**	
Unemployment	.31**			.25*
Years of education	-.31**			-.19
Step 2		.34	24.64***	
CSA	.43**			.16
Distant Control	.52**	Not entered ^a		
Inhibition	.61**			.53***

NOTE: F(cha) = the change in *F* associated with this step in the HMR [DEFINE HMR].

a. This variable was not entered into the equation because it was not associated with CSA.

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

explained variance. However, only Inhibition was significant. Inspection of the partial correlation between CSA and depressive symptoms indicated that unemployment and Inhibition partially mediated this association. Although the partial correlation between CSA and depressive symptoms was marginally nonsignificant ($pr = .19, p < .10$), it was still substantial.

To summarize, among the women, more severe CSA was associated with difficulties being distant and controlling in relationships, and these interpersonal problems partially mediated the link between CSA and depressive symptoms. Among the men, more severe CSA was associated with being unemployed and with difficulties being unassertive and taking too much responsibility in relationships. Again, these variables partially mediated the association between CSA and depressive symptoms.

DISCUSSION

The goal of this study was to evaluate the potential of three variables, interpersonal problems, gender role orientation, and the overvaluing of relationships, to mediate the association between CSA and depressive symp-

toms. These analyses were aimed at elaborating our understanding of the mechanism by which childhood sexual trauma is converted into adult depression.

In this sample, both men and women with a history of CSA reported higher levels of depressive symptoms than did participants without this history. We did not find an association between CSA and depressive symptoms in our previous study of female CSA survivors who were in stable intimate relationships (Whiffen et al., 1999). Our current result supports our speculation that the couple's sample was not representative of the general population of CSA survivors. The ability to form a stable, intimate relationship may, in itself, be indicative of a relatively high level of functioning among CSA survivors. Considered collectively, our findings also suggest that individual responses to CSA vary. Preexisting individual differences may contribute to a CSA survivor's ability to cope, and may be important predictors of outcome (Bowman, 1997). Future research may profitably focus on resiliency factors among individuals with a CSA history, including those variables that enable CSA survivors to form stable, intimate relationships as adults.

CSA survivors also were more likely than nonsurvivors to report a variety of interpersonal problems, and, as predicted, these problems mediated the association between CSA and depressive symptoms for both men and women. This finding is consistent with previous work indicating that CSA is associated with adult interpersonal difficulties. Cole and Putnam (1992) proposed that sexual abuse results in self-development difficulties that are inherently linked to problems in social development. Our findings suggest that social functioning also may be impaired in adulthood among some CSA survivors, and that difficulties in the social domain may increase the risk of depression.

Despite the global similarities between the results for men and women, there were notable sex differences. Most important, the interpersonal difficulties that were associated with CSA differed for the men and women in the sample, underscoring the importance of including both males and females in studies of sexual abuse sequelae. Previous studies of female CSA survivors noted that mistrust and estrangement from others is a common pattern (Briere, 1989; Harter, Alexander, & Neimeyer, 1988). Our results support this conclusion for female CSA survivors, but indicate that male survivors are more likely to lack assertiveness and to take too much responsibility in their relationships. Although both patterns may originate in damage to the self-system (Cole & Putnam, 1992), the patterns will have different consequences for close relationships. Female CSA survivors may have difficulty even forming close relationships, whereas male survivors may be able to

form close relationships but they may struggle to be authentic with their partners.

Our second hypothesis was that two aspects of the feminine gender role, lack of instrumental traits and overvaluation of relationships, would be associated with a history of CSA. There was no support for this hypothesis in the present study. Individuals with a sexual abuse history were no more likely than nonsurvivors to perceive themselves as low in masculinity or to report excessive investment in their relationships. However, the sex differences we found in the interpersonal problems reported by CSA survivors are intriguing from a gender role perspective. It appears that CSA survivors report interpersonal problems that are typically associated with individuals of the opposite sex. As our analyses indicated, men generally report more problems being distant and controlling in their relations with others than do women. Other research suggests that, conversely, women are more likely than men to feel unassertive and overly responsible in their relationships (Aube, Fichman, Saltaris, & Koestner, in press; Fritz & Helgeson, 1998).

It is possible that gender role incongruent interpersonal behavior elicits negative reactions from others, which serve to exacerbate depressive symptoms. For example, women's prescribed gender role emphasizes the development and maintenance of close relationships, and women's ability to nurture and care for their partners has a positive impact on relationship functioning (Helgeson, 1994). One possible interpretation of our data is that female CSA survivors have difficulty enacting a nurturing role with their partners, with the result that these relationships are not very satisfying and lack intimacy. From other literature, we know that both relationship dissatisfaction (e.g., Olin & Fenell, 1989) and a lack of intimacy (e.g., Brown & Harris, 1986) are risk factors for depression among women. Similarly, the partners of male CSA survivors may respond negatively to these men's lack of assertiveness because it is incongruent with the gender role prescribed for men. For instance, Joiner, Alfano, and Metalsky (1992) found that men who engage in reassurance seeking are rejected by their interaction partners, which exacerbates their depressive symptoms. It is interesting that women who sought reassurance were not rejected. Thus, for both sexes, gender role inappropriate interpersonal behavior may be implicated in increased risk for depression.

Our study had several methodological limitations. First, we used self-reports to measure both symptoms and interpersonal problems. Self-reports are commonly used in depression research. However, this practice has been criticized because depressive symptoms are not equivalent to clinical diagnoses of depression. In addition, self-reports and diagnoses may differ in their statistical associations with other variables (Coyne, 1994).

Similarly, we assessed perceptions of relationship difficulties but we did not observe interactions directly. The measurement of CSA also was problematic in that it involved a simple count of different activities. Thus, a single incident involving multiple activities would result in a higher score than a longstanding abusive relationship involving only one or two activities. At the time we conceptualized this study, our options for measuring CSA were limited. We commend the development of more sophisticated measures of CSA and encourage other researchers to replicate our study using these instruments. Next, it is important to point out that our data were cross-sectional. As a result, we can conclude only that the data are consistent with the mediating pathways we proposed. However, other possibilities were not eliminated by our analyses. For instance, interpersonal problems such as social isolation may antedate the CSA, and contribute both to the likelihood that a child is victimized and to subsequent depressive symptoms. A longitudinal study is required to test adequately our hypotheses about the temporal relations among CSA, interpersonal difficulties, and depressive symptoms. Third, our sample was self-selected and agreed to participate in a study of relationships and emotional distress. The reference to emotional distress was required by our ethics committee. It is difficult to assess the impact of self-selection on the results; we may have recruited a sample that was more distressed than is typical of the general population. Thus, it is important to replicate our findings in a large, random sample of community participants.

Finally, we wish to comment on the clinical implications of our findings. First, it appears that childhood sexual abuse, when it occurs, is as likely to be associated with depression for men as it is for women. It is important to underscore this point because most of the clinical literature is directed toward the experiences and treatment of female CSA survivors. Second, our results suggest that therapy that focuses on interpersonal difficulties, such as interpersonal therapy (IPT) (Klerman, Weissman, Rounsaville, & Chevron, 1984) or couples therapy (Johnson & Keeler-Williams, 1998), may go a long way toward helping individuals with a history of childhood sexual abuse.

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