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Child Sexual Abuse, Coping Responses, Self-Blame, Posttraumatic Stress Disorder, and Adult Sexual Revictimization

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The present study examined the psychological sequelae of child sexual abuse (CSA) and the factors that contributed to revictimization in the form of adult sexual assault (ASA) using a survey of 577 female college students. CSA characteristics, maladaptive coping in response to CSA, degree of self-blame at the time of the abuse and currently, and posttraumatic stress disorder (PTSD) symptoms were examined as predictors of revictimization. Results indicated that individuals who reported both CSA and ASA had more PTSD symptoms, were more likely to use drugs or alcohol to cope, act out sexually, withdraw from people, and seek therapy services. In addition, the revictimized group reported more self-blame at the time of the abuse and currently. The only factor that predicted revictimization in this study was the number of maladaptive coping strategies used. Implications of these findings are discussed.

Keywords: *child sexual abuse; coping; self-blame; posttraumatic stress disorder; college students; women; revictimization*

Many studies have documented a link between childhood sexual abuse (CSA) and revictimization in the form of adult sexual assault (ASA; Arata, 2000; Messman-Moore, Long, & Siegfried, 2000; Neumann, Houskamp, Pollock, & Briere, 1996; Wyatt, Guthrie, & Notgrass, 1992). The self-reported CSA rate for women in the United States is somewhere between 15% and 33% (Polusny & Follette, 1995). Researchers have found that CSA survivors are at least twice as likely to be revictimized as women with no reported CSA (see Messman-Moore & Long, 2003, for a review). A number of mechanisms have been suggested to explain revictimization. Finkelhor and Browne (1985) postulated four possible responses to CSA

that may be routes to revictimization: traumatic sexualization, betrayal, powerlessness, and stigmatization. In short, the child–perpetrator relationship sets the stage for children's beliefs about themselves, their affective responses, and their learning to relate to others throughout their lives. According to Seligman's (1975) learned helplessness approach, children who cannot stop the abuse may feel helpless and powerless and learn to accept what is being done to them, putting abuse survivors at greater risk for revictimization. Other cognitive theorists propose that sexual abuse survivors learn maladaptive ways of coping with life experiences that affects the way survivors view themselves, their world, and others (Wheeler & Berliner, 1988). CSA affects one's belief system, or schemata, about what is appropriate and inappropriate behavior. Survivors may not have learned the social and interpersonal skills to deal acceptably with adult relationships.

The present study uses a large college sample to compare CSA survivors to individuals who have been revictimized (i.e., CSA + ASA) on cognitive factors and posttraumatic stress disorder (PTSD) symptoms. As the abuse theories suggest, cognitive factors such as self-blame and certain coping strategies (e.g., sexually risky behavior) can lead to further sexual victimization. Research also indicates that PTSD that may increase vulnerability to sexual revictimization (Arata, 2000; Boney-McCoy & Finkelhor, 1995). We now briefly review past research on each of these factors.

Self-Blame and Revictimization

Characterological self-blame (i.e., blaming something stable within oneself) has been associated with poor outcomes, whereas behavioral self-blame (i.e., blaming one's actions) has been associated with positive outcomes in certain circumstances because one may be able to change future behavior (Janoff-Bulman, 1979). However, Frazier's (2003) longitudinal research shows that both behavioral and characterological self-blame are related to greater psychological symptoms for sexual assault survivors. Arata (2000) studied undergraduates and found that the association of CSA with revictimization was directly mediated by self-blame and PTSD. Victimized women may believe that they have brought the abuse on themselves and that they do not deserve to be loved unconditionally. Vicary, Klingaman, and Harkness (1995) stress the importance of studying blame attributions in sexual assault as many teenage girls continue to blame themselves, which can lead to damaging long-term psychological and physical health consequences. Furthermore, certain kinds of abusive men may target women whom they perceive as vulnerable. Maladaptive coping strategies have also been found to be associated with revictimization.

Coping Strategies and Revictimization

Gidycz, Hanson, and Layman (1995) indicated the need to study coping skills in understanding revictimization experiences because maladaptive coping (e.g., alcohol use, having multiple sex partners) may contribute to sexual revictimization. In a longitudinal study of college women, Himelein (1995) found that sexual victimization in dating experiences before college was a significant predictor of revictimization. Koss and Dinero (1989) found that, aside from CSA and sexual attitudes, alcohol use and sexual activity—indicators of maladaptive coping responses—were predictors of future victimization.

In a national longitudinal study of 3,006 women, Kilpatrick, Acierno, Resnick, Saunders, and Best (1997) found that the biggest risks for physical or sexual revictimization were minority status, drug use, and prior victimization. The researchers concluded that a reciprocal relationship exists between substance use and victimization such that criminal victimization leads to substance use, creating risk for further victimization, which may exacerbate substance use. Researchers have also found a link between avoidance forms of coping (e.g., withdrawing from others, trying to forget about the abuse), maladaptive coping (e.g., alcohol abuse), and PTSD symptoms (Coffey, Leitenberg, Henning, Turner, & Bennett, 1996; Johnson & Kenkel, 1991; Sinclair & Gold, 1997), which can potentially lead to revictimization. It is possible that avoidance coping is used to manage the intrusive symptoms associated with PTSD, leading to the negative PTSD symptoms (i.e., avoidance and numbing), which can result in revictimization.

PTSD and Revictimization

Many researchers have found a link between PTSD symptoms and revictimization (Arata, 2000; Boney-McCoy & Finkelhor, 1995; Rowan & Foy, 1993). Furthermore, CSA victims who reported dissociating during the abuse were found to have more PTSD symptoms than women who did not report dissociating (Johnson, Pike, & Chard, 2001). Although peritraumatic dissociation may have been a momentary adaptive response, carrying this response into the present may lead survivors to detach from their surroundings, making it difficult to attend to their surroundings and increasing the likelihood of revictimization (Briere & Runtz, 1987; Chu, 1992; Kluft, 1990).

In examining the relationship between PTSD symptoms, CSA, and adult revictimization in college women, Bolstad and Zinbarg (1997) found that women who experienced revictimization on multiple occasions had more PTSD symptoms than women who reported only one incident of adult

revictimization. Other researchers have found a link between CSA and PTSD mediated by ASA (Nishith, Mechanic, & Resick, 2000), suggesting a cumulative effect of traumatic events on PTSD symptoms, consistent with Messman-Moore and Long's (2003) review of CSA and revictimization.

CSA Severity and Revictimization

CSA severity has also been identified as a possible contributor to revictimization, with penetration, frequent abuse, and use of force more common in revictimized women and those with more PTSD symptoms (Koverola, Proulx, Battle, & Hanna, 1996). In their review of CSA sequelae, Beitchman et al. (1992) found that CSA severity and duration have been associated with more negative outcomes, including revictimization. Moeller, Bachmann, and Moeller (1993) reported that the more types of abuse experienced in childhood (e.g., physical, emotional, sexual), the greater the likelihood of adult revictimization.

The Present Study

The present study explored CSA experiences, PTSD symptoms, cognitive factors (i.e., self-blame and coping strategies), and revictimization in female college students. Revictimization was defined as CSA survivors who also experienced ASA, given the strong link that has been found in the research from early to later sexual revictimization (Arata, 2000; Messman-Moore et al., 2000; Neumann et al., 1996; Wyatt et al., 1992).

Few studies have compared CSA victims to nonvictims, and even fewer studies have examined factors differentiating among CSA victims who do and do not experience revictimization (see Messman-Moore & Long, 2003, for a review). This study is different from previous investigations in this area because cognitive and affective factors based on theories are examined simultaneously in relation to revictimization among CSA survivors. Specifically, the present study examined how coping factors, self-blame, and PTSD symptoms may create vulnerability to adult revictimization. CSA-only survivors are compared to revictimized women (CSA + ASA). Analyses of coping responses, self-blame during the abuse and currently, and PTSD symptoms as predictors were conducted comparing only CSA victims with the revictimized group because these abuse-specific variables were collected only for students with CSA.

Hypotheses. Compared to the no-abuse group, CSA survivors were expected to have a greater likelihood of being sexually victimized in adulthood, consistent with the revictimization literature (e.g., Arata, 2000;

Messman-Moore et al., 2000). Revictimized women, compared to CSA-only victims, were predicted to have poorer psychological outcomes, including more PTSD symptoms, greater degree of self-blame, and more use of maladaptive coping responses (e.g., acting out sexually, using drugs or alcohol). Predictors of PTSD symptoms, self-blame, and coping responses were also investigated. As in past research (Beitchmam et al., 1992; Koverola et al., 1996), greater abuse severity was expected to predict PTSD symptoms, and more PTSD symptoms were expected to predict self-blame and maladaptive coping strategies. Both sets of analyses were conducted (i.e., maladaptive coping responses as predictors of PTSD and vice versa) because the directionality of this relationship cannot be determined with a cross-sectional design. In addition, it is conceivable that women who suffer from PTSD are likely to engage in maladaptive coping responses, such as drinking alcohol, but that certain maladaptive coping responses (e.g., drinking alcohol) may also lead to PTSD symptoms (Cottler, Compton, Mager, Spitznagel, & Janca, 1992). Cottler and colleagues (1992) argue that drinking alcohol may predispose certain individuals to experiencing traumatic events (e.g., via a risky context), thereby increasing the likelihood of developing PTSD. Finally, CSA severity, self-blame, PTSD symptoms, and coping strategies were analyzed as predictors of revictimization. More self-blame, greater CSA severity, and the use of maladaptive coping strategies were predicted to increase the likelihood of being revictimized based on cognitive and affective theoretical formulations of increased vulnerability to future victimization (e.g., Arata, 1999; Finkelhor, 1990; Gidycz et al., 1995; Johnson et al., 2001; Kilpatrick et al., 1997).

Method

Participants

Survey participants were recruited from introductory psychology classrooms and received credit toward fulfilling their course requirements. Others were directly recruited from classrooms in the criminal justice department. A general announcement was made about the study, and interested students were given survey packets to complete outside of class where they felt comfortable. After completing the 20-page survey on stressful life experiences, participants returned survey packets to drop boxes located in the criminal justice and psychology departments. The sample size ($N = 577$) includes those with no sexual victimization, CSA only, ASA only, and both CSA and ASA. The return rate was 92%.

Measures

Demographic information. Basic demographic data were collected on age, year in school, ethnicity, marital status, employment status, income, and the number of children.

CSA questions. Banyard, Arnold, and Smith's (2000) CSA questionnaire adapted from Finkelhor (1979) was modified to establish a hierarchy of sexual abuse severity, with subsequent questions assessing more severe abuse. For example, the first question assesses noncontact sexual exploitation (i.e., masturbation in front of a child or exposing genitals to a child). The remaining questions are divided into sets of attempted sexual acts or completed sexual acts. For example, the next set of questions assesses attempted sexual fondling followed by completed sexual fondling. These sets of questions progress to attempted or completed vaginal or anal intercourse or other sex acts involving penetration with objects other than the penis. There are a total of 14 questions, all requiring participants to check whether or not they experienced each form of abuse. The cutoff for CSA was set at age 14, with the perpetrator having to be at least 5 years older than the victim. These are standards in the state of Illinois and are common cutoffs used in the research literature to define incidents as CSA.

CSA characteristics. Information was gathered about the age at the time the abuse began, age at the time it ended, frequency of abuse, the perpetrator's relationship to the victim (stranger, acquaintance, family member), and whether the victim was injured or thought her life was in danger.

PTSD symptomatology. Foa's (1995) Posttraumatic Stress Diagnostic Scale was used to assess PTSD symptomatology with respect to CSA experiences. The PDS is a 17-item self-report inventory measuring the basic criteria for PTSD as per the *DSM-IV* (i.e., re-experiencing, avoidance or numbing, and arousal). Participants were asked to rate on a 4-point scale of 0 (*not at all or only one time*) to 3 (*five or more times a week or almost always*) how often they experienced each symptom, with a maximum possible PTSD symptom severity score of 51. For diagnostic purposes, two more questions assess the length of time participants experienced these symptoms and whether PTSD symptoms had a delayed onset. This scale has been validated with sexual assault survivors.

Attribution of blame. Participants were asked to indicate to what degree they blamed themselves, the perpetrator, society, and someone else for the sexual abuse they experienced as children. Response options ranged from 0 (*not at all*) to 3 (*a lot*). This series of questions was asked twice. In the first series, participants were asked to think about how they felt at the time the abuse occurred (past attributions), and the next series assessed how they feel now (current attributions). Ullman (1997) has used these questions in previous research.

Coping responses. Participants were asked if they had done any of the following things (no or yes) to cope with their childhood sexual abuse experience: drank alcohol or used drugs, withdrew from people, acted out sexually, got help from others by talking about experience, went to a therapist, acted out with physical aggression, tried to forget about the experience, or coped some other way (participants were asked to specify). Ullman (1996) has used these responses in past research, and an overview of the literature on methods of coping with traumatic experiences indicated that these were typical coping methods.

ASA. A shortened, modified version of the Sexual Experiences Survey (Koss & Gidycz, 1985) was used to assess attempted and completed sexual assault. Participants were asked if they ever had any of five experiences after age 14: attempted intercourse with threats or force, completed intercourse with threats or force, attempted unwanted intercourse while intoxicated, completed unwanted intercourse while intoxicated, and completed other sex acts (oral intercourse, anal intercourse, or penetration by objects other than the penis) with threats or force. The Sexual Experiences Survey has reported internal consistency reliability of .69 and test-retest reliability of 93% after 1 week (Koss & Gidycz, 1985).

Results

Demographics, CSA Prevalence, Postabuse Characteristics, and Coping Strategies

Table 1 presents information on demographics, CSA characteristics, and coping responses. Most participants were unmarried, ethnically diverse women. More than half of CSA survivors reported experiencing completed

Table 1
Demographics, Childhood Sexual Abuse, and Postabuse Characteristics in a Sample of Female College Students ($N = 577$)

Variable	Percentage
Demographic characteristics	
Year in school	
Freshman	48.6
Sophomore	31.2
Junior	13.0
Senior	6.7
Marital status	
Unmarried	97.3
Child status	
No children	95.0
Employment status	
Employed	62.0
Yearly household income	
More than $30,000	47.3
$10,000 to $30,000	26.4
Less than $10,000	26.4
Ethnicity	
Caucasian	35.1
Asian American	26.4
Latina	17.6
African American	15.7
Other	5.2
CSA characteristics and outcomes	
CSA prevalence in sample	28.7
Self-blame then	56.1
Self-blame now	41.5
CSA severity	
Exposure only	7.8
Attempted fondling or penetration	19.5
Completed fondling	53.9
Completed penetration	18.8
Reported CSA only	16.6
Reported ASA only	9.9
Reported both CSA and ASA	12.1
Mean age abuse began	9.9 ($SD = 3.1$)
Mean age abuse ended	11.0 ($SD = 3.3$)
Abuse frequency and duration	
Once or one time	39.7
2 times or more per week or per year	60.4
Reported physical injury	3.2
Perceived life in danger	14.5

(continued)

Table 1
(continued)

Variable	Percentage
CSA victim and offender relationship	
Stranger	11.5
Acquaintance	49.2
Family member	39.3
Coping responses used	
Trying to forget	84.0
Withdrawing from people	48.8
Talking with others	24.0
Acting out sexually	23.2
Using alcohol or drugs	18.4
Acting out aggressively	17.6
Seeking therapy	8.8

Note: ASA = adult sexual abuse; CSA = child sexual abuse. Current mean age is 19.6 ($SD = 2.4$).

fondling, and most common coping response was trying to forget about the experience.

Sexual Victimization Prevalence and Revictimization Rates

Approximately 16% of the sample reported only CSA, 10% reported only ASA, 12% reported victimization in both life phases, and the rest (61%) did not report any abuse experiences. To examine whether CSA survivors were more likely to be revictimized in adulthood, a chi-square analysis was conducted comparing CSA survivors to the no-child abuse group on the frequency of ASA. Results revealed that 42.2% of women who reported a childhood sexual abuse experience also reported an ASA, whereas only 14% of those without CSA reported an ASA, χ^2 (1, $N = 404$) = 38.70, $p < .001$.

Bivariate Analyses of CSA Characteristics, PTSD, Self-Blame, and Maladaptive Coping

Table 2 presents correlations of study variables (i.e., PTSD symptoms, child abuse characteristics, degree of self-blame, and the number of maladaptive coping strategies). Maladaptive coping strategies were computed as the sum of several strategies used by survivors: withdrawing from people, acting out sexually, using alcohol or drugs, and acting out aggressively. Trying to forget about the experience was endorsed by most participants

Table 2
Correlations Among PTSD Symptoms, CSA Characteristcs, Self-Blame and Maladaptive Coping Strategies ($N = 126$)

Variable	1	2	3	4	5	6	7	8	9	10
1. PTSD severity	—	-.22*	-.03	.31**	.34**	.26**	.26**	.36**	.38**	.51**
2. Age CSA began		—	.81**	-.25**	-.19*	-.19*	-.18*	-.07	.07	-.02
3. Age CSA ended			—	.22*	.26**	-.09	.02	.01	.16	.14
4. CSA frequency				—	.87**	.31**	.44**	.26**	.32**	.25**
5. CSA duration					—	.24**	.43**	.25**	.28**	.28**
6. CSA severity						—	.33**	.41**	.41**	.24**
7. Victim-perpetrator relationship							—	-.01	.14	.05
8. Self-blame during CSA								—	-.62**	.47**
9. Self-blame currently									—	.35**
10. Maladaptive coping										—

Note: CSA = child sexual abuse; PTSD = posttraumatic stress disorder.
*$p < .05$. **$p < .01$.

(84%) and can be viewed as either adaptive or maladaptive, and therefore was excluded from the maladaptive coping category. As expected, greater CSA severity was associated with more self-blame, maladaptive coping strategies, and PTSD symptoms. PTSD symptoms were significantly and positively related to all variables except participants' age at the time CSA ended. PTSD was negatively related to younger age at the time CSA began. Earlier age of abuse onset was significantly correlated with greater CSA frequency, duration, severity, and greater victim familiarity with the perpetrator.

PTSD and Revictimization

Mean PTSD levels of those reporting CSA experiences were low and variable ($M = 9.1$, $SD = 10.1$), most likely because of the high functioning college sample. To examine whether revictimized students had more PTSD symptoms than the CSA-only group, a one-way analysis of variance (ANOVA) was conducted with victimization status (i.e., CSA-only, both CSA and ASA) on PTSD symptoms. As hypothesized, revictimized participants had significantly more PTSD symptoms ($M = 11.98$, $SD = 12.52$) than those reporting CSA-only ($M = 7.34$, $SD = 7.91$), $F\ (1, 112) = 5.80$, $p < .05$.

Predictors of PTSD

A multiple regression analysis was conducted using CSA characteristics, coping strategies, and self-blame as possible predictors of PTSD (see Table 3). Results revealed that the number of maladaptive coping strategies, greater current self-blame, and younger age that CSA began significantly greater predicted PTSD symptoms. Other assault characteristics (e.g., CSA duration) were not predictive of PTSD symptoms, although greater familiarity with the perpetrator was marginally related to more PTSD symptoms.

Self-Blame and Revictimization

Two analyses were conducted with degree of current self-blame and self-blame at the time of the CSA experience to assess whether there was more self-blame in the revictimized group than the CSA-only group. Results of a one-way ANOVA revealed significantly more self-blame at the time of the abuse in the revictimized group ($M = 1.50$, $SD = 1.26$) than the CSA-only group ($M = .94$, $SD = 1.14$), $F(1, 110) = 5.08$, $p < .05$. Another ANOVA indicated that the revictimized group also reported significantly more current self-blame ($M = 1.02$, $SD = 1.20$) than the CSA-only group ($M = .57$, $SD = .88$), $F(1, 110) = 5.22$, $p < .05$.

Table 3
Multiple Regression Analysis of CSA Characteristics, Self-Blame, and Maladaptive Coping Strategies as Predictors of PTSD Symptoms ($N = 108$)

Predictor	*B*	*SE B*	β
CSA severity	-0.53	0.83	-.06
Age CSA began	-0.55	0.27	-.16*
CSA duration	0.92	0.83	.10
Victim–perpetrator relationship	2.45	1.44	.15†
Self-blame at the time of abuse	0.38	0.95	.04
Current self-blame	2.14	1.05	.21*
Maladaptive coping responses	3.06	0.75	.38**
F	9.25		
df	7,101		
p	.000		
Adjusted R^2	.35		

Note: CSA = child sexual abuse; PTSD = posttraumatic stress disorder. To avoid multicollinearity, CSA frequency and age CSA ended were excluded as predictors because of high correlations with CSA duration ($r = .87$) and age CSA began ($r = .81$). Self-blame at the time of abuse and self-blame after the time of abuse were correlated, $r = .62$, but removing one from the analysis did not significantly change the outcome.
†p < .10. *p < .05. **$p < .01$.

Predictors of Self-Blame

Binary logistic regression analyses were performed on CSA characteristics, PTSD symptoms, and maladaptive coping strategies to test the prediction that these factors are associated with self-blame during the abuse and at the time of the study (see Table 4). Tests of the overall models were significant, LR χ^2 (6, $N = 120$) = 33.60, $p < .001$ (predicting self-blame at the time of the abuse); LR χ^2 (6, $N = 110$) = 33.48, $p < .001$ (predicting self-blame presently). PTSD and CSA severity predicted self-blame both during the abuse and currently. Maladaptive coping strategies significantly predicted self-blame only during the abuse, whereas younger age at the time CSA began predicted only current self-blame. Individuals using maladaptive coping strategies were almost twice as likely to blame themselves at the time of the abuse. Individuals with greater CSA severity were one and a half times more likely to blame themselves at the time the abuse occurred and more than twice as likely to blame themselves currently for the abuse.

Table 4
Logistic Regression Analyses of CSA Characteristics, PTSD Symptoms, Maladaptive Coping Strategies, and Self-Blame as Predictors (With Nonsignificant Predictors Removed)

Predictors	*B*	Wald	Significance	Odds Ratio	95% Confidence Interval
Predicting self-blame during CSA ($N = 120$)					
CSA severity	.50	6.52	.011	1.65	1.12 to 2.43
PTSD symptoms	.05	3.12	.077	1.05	1.00 to 1.11
Maladaptive coping	.56	6.43	.011	1.75	1.14 to 2.69
Predicting self-blame during the present ($N = 110$)					
CSA severity	.83	11.05	.001	2.30	1.41 to 3.76
Age CSA began	.15	4.01	.045	1.16	1.01 to 1.35
PTSD symptoms	.07	8.09	.004	1.07	1.02 to 1.12
Predicting CSA victims' use of maladaptive coping strategies ($N = 109$)					
CSA duration	.23	1.20	.273	1.26	0.84 to 1.89
PTSD symptoms	.17	16.93	.000	1.18	1.09 to 1.28
Self-blame during	.44	4.61	.032	1.56	1.04 to 2.33
Predicting revictimization ($N = 100$)					
CSA severity	-.26	2.13	.145	0.77	0.54 to 1.09
Maladaptive coping	.56	12.80	.000	1.74	1.24 to 2.42

Note: CSA = child sexual abuse; PTSD = posttraumatic stress disorder. To avoid multicollinearity, CSA frequency and age CSA ended were excluded as predictors because of high correlations with CSA duration ($r = .87$) and age CSA began ($r = .81$), respectively.

Nonsignificant predictors were removed to avoid inflating goodness of fit (Hosmer & Lemeshow, 1989).

Coping Responses and Revictimization

To test the hypothesis that maladaptive coping strategies were more common in the revictimized group than the CSA-only group, a series of chi-square analyses were conducted. One third (32%) of the revictimized group used substances, whereas 10% of CSA survivors who did not report being revictimized used alcohol or drugs to cope, χ^2 (1, $N = 112$) = 7.73, $p < .01$. Withdrawing from people was also statistically significant, with 62% of the revictimized group withdrawing and only 40% of the CSA-only group withdrawing, χ^2 (1, $N = 112$) = 5.14, $p < .05$. The revictimized group were also more likely to act out sexually (38%) than the CSA-only group (15.4%), χ^2 (1, $N = 112$) = 7.64, $p < .01$. Furthermore, 20% of the

revictimized group sought therapy services, whereas only 2.2% of the CSA-only group did so, χ^2 (1, N = 112) = 7.96, $p < .01$. Coping by trying to forget about the experience, acting out aggressively, and talking with others did not differ significantly between the two groups.

Predictors of Maladaptive Coping Responses

Another logistic regression analysis was conducted with CSA characteristics, self-blame, and PTSD symptoms predicting the use of maladaptive coping strategies. PTSD symptoms and self-blame at the time the abuse occurred were the only significant predictors of maladaptive coping (see Table 4). The overall model, removing nonsignificant predictors, was significant LR χ^2 (7, N = 109) = 52.92, $p < .001$.

Predictors of Revictimization

To examine significant predictors of revictimization, a logistic regression analysis was performed on CSA characteristics, self-blame, maladaptive coping strategies, and PTSD. The overall model was significant, LR χ^2 (8, N = 100) = 19.77, $p < .05$ (see Table 4). However, only maladaptive coping strategies predicted revictimization once the nonsignificant predictors were removed.

Discussion

The purpose of the present study was to examine how CSA, PTSD symptoms, and cognitive factors are associated with sexual revictimization in adulthood. This study is one of few comparing CSA victims who have and have not experienced ASA. The findings from this study of female college students support a definite link between childhood sexual abuse and revictimization in adulthood, with ASA being almost four times more likely for those individuals who experienced CSA. However, revictimization rates may be even higher in the community, as college students are still relatively young (see Messman-Moore & Long, 2003, for a review).

The CSA rate (28.7%) in this sample of college students is within the norms found by other researchers (Polusny & Follette, 1995). These results were obtained from a high functioning population that has made it to college, whereas CSA rates in the community are usually higher (Messman-Moore & Long, 2003). More than half of those who reported CSA experienced sexual fondling and nearly one fifth reported penetration. Almost half reported the

perpetrator to be an unrelated acquaintance; almost two thirds reported the abuse went on for weeks to years. The most common post-CSA coping strategy was trying to forget about the experience, whereas nearly half reported withdrawing from people.

Research on ASA has shown that victim-blaming and self-blame are common responses to rape (Arata, 1999; Filipas & Ullman, 2001; Ullman, 1997). It is unfortunate that self-blame is also common among CSA survivors. Even after reaching adulthood and presumably becoming aware of the inexcusable, inherent wrongness of what they experienced as children, a small majority of individuals find reason to continue to blame themselves. More than half the victims blamed themselves at the time the abuse occurred and more than one third still blame themselves currently (41.5%).

It may even be the case that self-blame is necessary for some individuals because it gives them a sense of control over what happened to them. Janoff-Bulman's (1979) conceptualization of behavioral self-blame posited that certain individuals may feel safer blaming themselves, as this implies that they have some control over the situation and are comforted by the thought that they can avoid future assaults. However, research has shown that behavioral self-blame may be effective for certain traumas (e.g., motor vehicle accidents) but not others (e.g., rape), and that there is no correlation between behavioral self-blame and belief in future control over rape occurring (Frazier, 2003). In fact, Frazier (2003) found that rape survivors who felt a sense of personal control (i.e., past self-blame) over the assault experienced greater psychological distress, including a greater number of PTSD symptoms. Similarly, Koss, Figueredo, and Prince (2002) found that current self-blame among sexual assault survivors predicted difficulty adjusting to interpersonal situations, more PTSD symptoms, and greater physical health consequences.

Factors Associated With Revictimization

Comparisons between women who reported only a CSA experience and those who reported both CSA and ASA revealed that those who were revictimized were more likely to use drugs or alcohol to cope with their experiences, were more likely to withdraw from people, and were more likely to act out sexually than those individuals who only experienced CSA. As this study is retrospective in nature, it is uncertain whether revictimization leads to these negative coping patterns or vice versa. Consistent with Moeller et al. (1993) and Ullman and Brecklin (2002), students who were revictimized were more likely to seek out mental health services than those who experienced only child victimization. In fact, only 8.8% of CSA survivors with no history

of revictimization reported seeking therapy services. As coping by trying to forget about the experience was reported by most people, there was no difference in this coping response between the CSA-only and revictimized group. Talking with others about the CSA experience also did not differ between those who were only victimized in childhood and those who were revictimized in adulthood. Additionally, as predicted, individuals who were revictimized in adulthood experienced significantly more PTSD symptoms. However, the PTSD rate in this high-functioning college sample is relatively lower than in community samples (Messman-Moore & Long, 2003; Nishith et al., 2000). Although self-blame did not significantly predict revictimization, individuals who were revictimized did blame themselves more than those who only experienced CSA, consistent with past research showing that female ASA survivors with CSA experiences blame themselves more than those with only ASA (Ullman, 1997).

Predictors of PTSD

The hypothesis that maladaptive coping, CSA severity, and self-blame would all predict PTSD symptom severity was supported. Greater CSA severity was associated with more PTSD symptoms. In addition, more PTSD symptoms were also associated with more maladaptive coping strategies, greater CSA frequency, and longer abuse duration. An interesting finding was that individuals who were sexually abused by someone they knew experienced more PTSD symptoms than those individuals abused by someone less familiar. Finkelhor and Browne (1985) describe the ultimate betrayal of trust that occurs when someone whom children look up to and rely on maltreat them. It is therefore understandable how children may experience greater psychological distress when the perpetrator is someone they care about and is in the role of a protector rather than someone unfamiliar. Freyd's (1994) theory of betrayal-trauma supports this notion and further expands on it. Younger age at the time CSA began also significantly predicted PTSD symptom severity as did current self-blame. These results speak to the possibility that blaming oneself at the time of the abuse, although harmful, may serve an adaptive function as a way of gaining control over the situation, but that this response may be even more harmful in the present.

Predictors of Maladaptive Coping Responses

Consistent with the hypothesis that PTSD symptoms and self-blame would predict coping responses, the present study found that individuals who blamed themselves at the time of the CSA were one and a half times as

likely to use maladaptive coping strategies (i.e., withdrawing from people, using drugs and alcohol, acting out sexually and/or aggressively) later in adulthood. The use of maladaptive coping strategies appears to be another long-term consequence of child victimization that may be mediated by PTSD and self-blame. Individuals who blamed themselves for the abuse and experienced PTSD may be inclined to deal with the abuse through alcohol and/or drug use, withdrawing from people, or acting out sexually and/or aggressively. These findings are consistent with other researchers' findings on the long-term psychological sequelae of child victimization (Arata, 2000; Himelein, 1995; Wheeler & Berliner, 1988). However, it is uncertain whether PTSD leads to using maladaptive coping strategies or whether these strategies lead to greater PTSD symptoms.

Predictors of Revictimization

Contrary to the hypothesis that CSA severity, self-blame, PTSD symptoms, and coping strategies would all predict revictimization, the only variable found as a reliable predictor of revictimization in this study was the use of maladaptive coping strategies. Individuals who engaged in maladaptive coping responses were almost twice as likely to be revictimized as individuals who did not use these responses. It is difficult to tease apart which specific coping responses (i.e., drug and alcohol use, withdrawing from people, acting out sexually and/or aggressively) most contributed to revictimization. Arata (2000) found alcohol use to be a predictor of revictimization, whereas Gidycz and colleagues (1995) found that the number of sex partners predicted revictimization. It may be the case that maladaptive coping in relation to CSA may increase risk for revictimization (e.g., via risky behaviors), which then increases the risk of PTSD development. Further research is needed to disentangle the specific contributors of revictimization, which may differ in different situations or contexts (Messman-Moore & Long, 2003).

Present Study Limitations and Clinical Implications

There are a number of weaknesses in this study. As this was a survey study using a convenience sample of college students' retrospective accounts of CSA experiences, no causal statements can be made. As a result, it is uncertain, for example, whether PTSD and coping responses contributed to revictimization or whether revictimization led to maladaptive ways of coping and greater PTSD symptoms. In addition, the measures used to assess attributions of blame and maladaptive coping strategies are not standard measures, which is problematic given uncertainties about their reliability and

validity. Future research on self-blame and maladaptive coping responses should use empirically validated measures to support or refute the present findings. Other forms of childhood abuse (e.g., physical abuse, neglect) and other traumatic life events (e.g., car accidents, mugging) were not assessed, which may affect certain variables such as PTSD and coping responses. Furthermore, the role of PTSD in CSA and revictimization may be underestimated in this study because of the reported low PTSD rate in this high-functioning college sample. The PTSD findings should be interpreted with caution, as the scores were low and highly variable. More research is clearly needed in this area and in other populations.

Consistent with past findings (e.g., Moeller et al., 1993), few women seek formal support (e.g., mental health services) for CSA experiences. Educational programs in schools and through community outreach programs on CSA and its aftermath may help normalize survivors' feelings and help them find available resources in their community should they desire it. Clinicians working with sexual violence survivors should be aware of and sensitive to their patients' unique concerns. Understanding the ways survivors cope with CSA may assist clinicians in halting the patterns that may lead to revictimization.

There can be no doubt that CSA has damaging consequences for all victims and for everyone involved in the victim's life from childhood to adulthood. This may include family members, friends, romantic partners, social services agencies, and so forth. The broader ecological context must be considered when studying how people are affected by childhood sexual abuse. Finally, it is important not to lose sight of the perpetrator's role in CSA and revictimization (Messman-Moore & Long, 2003). Although it is essential to study what CSA victims and others can do to mend the damage that was done, the crime would not exist if not for perpetrators. Unfortunately, CSA cannot be undone or erased from the lives of people who experienced it, but understanding the long-term sequelae and how to adaptively cope with it may protect victims from revictimization and serve to help them recover from these experiences and live happier, more fulfilling lives.

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