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Psychological sequelae of childhood sexual abuse: abuse-related characteristics, coping strategies, and attributional style

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Abstract

Objective: The aim of this study was to test a model predicting the contribution of abuse-related characteristics and mediating variables such as coping and attributional style in the development of psychological sequelae in adults reporting a history of child sexual abuse (CSA).

Methodology: Two hundred and eighty-five males and females from three settings (a nonpatient, psychiatric outpatient, and psychiatric inpatient) completed a battery of questionnaires that included a (1) Sexual History Questionnaire, (2) Ways of Coping Questionnaire, (3) Attributional Style Questionnaire, and (4) the SCL-90-R.

Results: Of the 285 participants, 33% reported unwanted or forced sexual contact before the age of 18 years. Participants who reported a history of CSA also reported higher levels of psychological distress when compared to those who did not report a history of abuse. In testing the model concerning the relationship between victim-offender characteristics, mediating variables and psychological distress in adulthood; two abuse-related characteristics (number of offenders and duration of abuse) were found to be directly associated with psychological distress in adulthood. Other abuse-related variables (i.e., relation with offender, force, resistance, age of onset, participation, and frequency of abuse) were found to be related to psychological distress in adulthood through the mediation of various coping strategies (i.e., Accepting Responsibility, Confrontive Coping) and attributions (i.e., internalization of the abuse).

Conclusions: The results of the present study further our understanding regarding the relationship between abuse-related characteristics, mediating factors such as coping and attributional style and psychological distress in adults with a history of CSA. Future research should focus on the development of interventions that focus on variables amenable to psychotherapy to ameliorate the psychological sequelae of CSA.

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Keywords: Child sexual abuse; Abuse-related characteristics; Coping; Attributional style

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Introduction

For the first time in the history of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1996), sexual abuse was included as a contributing factor in the development of psychological symptoms in adulthood. Previous research has demonstrated that childhood sexual abuse is correlated with short- and long-term psychological sequelae (Brown & Anderson, 1991; Lange et al., 1999; McLeer et al., 1998; Molnar, Berkman, & Buka, 2001; Pettigrew & Burcham, 1997; Straus & Kantor, 1994). However, not all persons who report a history of childhood sexual abuse report debilitating psychological symptoms in adulthood. Williams (1993) has previously suggested that persons with similar abusive experiences can have varying outcomes “depending on how the events are perceived, appraised, and processed” (Williams, 1993).

Early studies focused on abuse-related characteristics (e.g., duration or frequency of abuse, age of onset of abuse, and use of force) as contributors to the development of psychological distress in adulthood, however, the results were inconsistent suggesting other factors may be responsible for differing results. For example, duration and frequency of abuse, type of sexual acts perpetrated, and familiarity with the offender have been found by some researchers to be associated with greater psychological symptoms in adulthood (Bennett, Hughes, & Luke, 2000; Crowley & Seery, 2001; Johnson, Pike, & Chard, 2001; Pettigrew & Burcham, 1997; Ruggiero, McLeer, & Dixon, 2000), while other researchers have found that these abuse-related characteristics were not significantly associated with psychological distress in adults (Heath, Bean, & Feinauer, 1996).

Factors such as coping, and attributional style have been subsequently studied as possible buffers in long-term psychological sequelae of CSA. Although mixed results have been reported, in general the research suggests that the use of emotion-focused coping is associated with negative long-term psychological sequelae in persons with a history of CSA (Kuyken & Brewin, 1999; Sigmon, Greene, Rohan, & Nichols, 1996), while social support and problem solving coping strategies were found to be correlated with less psychological distress in adults reporting a history of CSA (Cerezo-Jimenez & Frias, 1994; Coffey, Leitenberg, Henning, & Turner, 1996; Lange et al., 1999; Wolfe, Gentile, & Wolfe, 1989).

Emotion-focused coping refers to strategies aimed at controlling the emotional response to a stressor (e.g., use of drugs, alcohol, social support, distraction). Oftentimes, the individual does not feel that they can change the stressor or does not have resources to deal with the demand. In contrast, problem-focused coping refers to strategies aimed at reducing the demands of the situation or expanding the resources for dealing with it. This type of coping involves the individual believing that they can change the demand. Emotion-focused coping has been found to be correlated with increased psychological distress (Sigmon et al., 1996) while problem-focused coping has been found to be associated with better psychological functioning in individuals reporting a history of CSA (Cerezo-Jimenez & Frias, 1994; Coffey et al., 1996; Shapiro & Levendosky, 1999; Wolfe et al., 1989).

Soon after the abuse incident, avoidant and cognitive coping strategies, have been found to mediate the effects of childhood sexual abuse and psychological distress in adolescent females between the ages of 14 and 16 years of age (Shapiro & Levendosky, 1999). In another study with adults who have a history of CSA, Shapiro et al. (1999) found that emotion-focused coping strategies accounted for a unique variance on the dependent variable, psychological distress, even after controlling for abuse-related characteristics (e.g., duration, frequency of abuse).

Attributional style has also been studied in regard to psychological distress in adulthood in individuals who report a history of CSA. Attributional style refers to the tendency for an individual to make causal inferences about a situation (Seligman, Abramson, Semmel, & von Baeyer, 1979). An individual with a negative attributional style ascribes cause of the negative event to themselves (internal), across situations (global) and over time (stable). As early as childhood, negative attributional styles have been demonstrated to be associated with psychological distress subsequent to CSA. In children, 8 weeks after discovery of the abuse, shame and self-blaming attributions have been found to be correlated with depression and lower self-esteem even after age, gender, and abuse characteristics had been controlled (Feiring, Taska, & Lewis, 1998). Mannarino and Cohen (1996) also found, in girls between the ages of 7 and 12 years old, that abuse-related attributions predicted self-reported psychological symptomatology. In adults with a history of CSA, negative attributional style has been found to be linked with psychological distress. Individuals who reported a history of sexual abuse were found to be more likely to attribute negative events as internal, stable, and global when compared to individuals without a history of childhood sexual abuse (Kuyken & Brewin, 1999; Lange et al., 1999; Wenninger & Ehlers, 1998).

The aims of the present study were to test a model that represents the contributions of both abuse-related characteristics and mediating variables in relation to long-term psychological consequences of CSA. We expected that some abuse-related characteristics would be directly associated with greater psychological distress. However, it was also expected that certain coping strategies and attributional styles may serve as mediators between the abuse-related characteristics and psychological distress reported in adulthood. A model testing abuse-related and possible mediating variables simultaneously will facilitate our understanding of the previous inconsistencies of past research as well as understand the relationship between the abuse-related characteristics, mediating variables, and long-term psychological distress in adults who have a history of CSA.

Methods

Participants

Two hundred and eighty-five males and females were recruited from three settings: (1) 180 nonpatients were recruited from a department of psychology subject pool, (2) 64 psychiatric outpatients were recruited from eight local outpatient clinics, and (3) 41 psychiatric inpatients were recruited from a state hospital in Washington. The number of participants who were approached versus those who agreed to participate varied for each sample. The participants who were recruited from the psychology subject pool were recruited over the fall semester. All participants were volunteers and of the 189 participants from the psychology subject pool, 5% ($N = 9$) did not attend their scheduled appointment nor complete a battery of questionnaires. Participants from the outpatient sample were volunteers from the community who responded to flyers that were posted on the outpatient clinic walls. All participants who contacted the investigator to participate in the study attended their scheduled appointment and completed the battery of questionnaires. Refusal to participate was 0% for the outpatient sample. Participants from the inpatient group were recruited over a 1-year period. Consecutive admissions of inpatients to a state psychiatric hospital were referred for participation. Of approximately 61 patients who were approached for participation, 33% declined to participate or complete a battery of questionnaires. The inclusion and exclusion criteria was the same for all three settings. The criteria for inclusion was that participants were (1) between the

ages of 18 and 65 years. Exclusion criteria included (1) current suicidal ideation, or (2) current psychotic symptoms.

Instruments

A battery of self-report questionnaires was administered. The battery included (1) the Sexual History Questionnaire, (2) the Attributional Style Questionnaire, (3) Ways of Coping Checklist—Revised, and (4) the Symptom Checklist-90—Revised. The questionnaires took approximately one hour to complete.

Independent variables

The Sexual History Questionnaire is a 21-item self-report measure used to obtain demographic information as well as abuse-related characteristics. This instrument was developed specifically for the purposes of this study. Child or adolescent sexual abuse (CSA) was defined as unwanted or forced sexual contact during childhood or adolescence. The contact ranged from unwanted exposure of the individuals' own or offenders' genitalia to forced penetrative sexual intercourse. For the contact to be defined as CSA, the contact must have occurred before the age of 18 years. The questionnaire includes items regarding the victims' and offenders' age, relationship, type of abuse that the individual experienced, the duration and frequency of the abuse, participation and resistance of the abuse, and disclosure and social support following the abuse. The type of abuse was divided into five categories including: (1) witnessing unwanted sexual activity (e.g., watch offender masturbate), (2) unwanted sexual advances (e.g., perpetrator touched victim's genitalia), (3) unwanted sexual pressure (e.g., the offender intimidated or pressured victim into sexual activity), (4) forced sexual encounter (e.g., perpetrator used verbal or physical threat or force to engage in sexual activity with the victim), and (5) other sexual trauma (e.g., ritualistic abuse).

The Attributional Style Questionnaire (ASQ; Peterson et al., 1982) is a self-report instrument used to assess thoughts regarding the cause of negative and positive events. Twelve hypothetical situations are presented, and the respondent is asked to write down the major cause of the situation and then rate the cause along three dimensions (1) internal-external: cause is attributed to yourself versus external factors, (2) global-specific: the cause of the event is attributed to all other events versus being specific to the event in question, (3) stable-unstable: the cause of the event is consistent over time versus the cause changing over time. An additional question was added to assess the attributions of the sexual abuse. The added question was structured similarly to the questions in the ASQ but the content of the question included the sexual abuse experience, if relevant to the participant. The individual scales of the ASQ have generally modest reliabilities (e.g., Peterson et al., 1982); however, a number of studies have supported the validity and empirical utility of the ASQ (see reviews by Peterson & Seligman, 1984; Robins, 1988). Internal consistency reliabilities of .66 for internality, .85 for stability, and .88 for globality have been reported by Peterson and Seligman (1984).

The Ways of Coping Checklist—Revised (Lazarus & Folkman, 1984) is a 50-item questionnaire that describes a range of cognitive and behavioral coping strategies. The questionnaire yields eight scales including: Confrontive Coping, Distancing, Self-Control, Social Support, Accepting Responsibility, Escape-Avoidance, Planful Problem Solving, and Positive Reappraisal. The participants were asked to respond on a four-point Likert-type scale with “not used” to “used a great deal” and was asked to answer how they coped with the sexual abuse incident. The revised scales were consistently more reliable and

shared substantially less variance than the original scales. The construct validity of the questionnaire was good.

Dependent variable

The Symptom Checklist-90—Revised (Derogatis, 1983) was employed to measure psychological distress. The SCL-90-R includes nine scales: Somatization, Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobia, Paranoia, and Psychoticism. In addition, the SCL-90-R yields a Global Severity Index (GSI) which provides an index of overall psychological distress. The SCL-90-R has been widely utilized to measure psychological distress and its reliability and validity have been extensively tested (Derogatis & Melisaratos, 1983). A higher score on any of the subscales suggests a greater level of psychological distress reflected by the subscale. A high score on the GSI reflects a high level of overall psychiatric distress.

Procedure

Washington State University and the Eastern State Hospital Institutional Review Boards approved the present study. The participants were administered the battery of questionnaires after written informed consent was obtained. During the study participants were provided the opportunity to ask questions and told that they could discontinue the study at any time if they became uncomfortable or upset while answering the questions. When the participants from the nonpatient sample completed the battery of questionnaires they were provided a debriefing and referral to psychological services in the case that they would like to discuss further their experience with a licensed therapist. Participants from the inpatient and outpatient psychiatric settings were encouraged to discuss abuse-related issues with their therapist, if warranted.

Data analysis

The distribution of the independent and dependent variables was analyzed to determine if parametric or nonparametric statistics should be employed. Each variable included in the analyses was found to be normally distributed, therefore parametric statistics were performed. Demographic variables were also tested to determine their influence on the dependent variable (e.g., Global Severity Index of the SCL-90-R) prior to further analyses. Multivariate analysis of variance (MANOVA) was used to test the difference on the dependent variable of psychological distress between those participants who reported a history of CSA and those participants who reported no history of CSA. Zero order correlations were then calculated to determine which variables were significantly related to the dependent variable, psychological distress. All significant variables were then entered into a regression equation to test the model.

Results

Of the 285 participants recruited for the purposes of this study, 42% were male and the remaining 58% were female. The mean age of the sample was 23 years with a range from 18 to 60 years. Eighty-three percent of the sample was Caucasian, 6% African American, 4% Hispanic, 2% Native American, and 1% Asian. Eighty-two percent of the sample reported being single, 6% divorced, 6% married, and 2.4%

Table 1
Demographic information by sample

	Entire sample (<i>N</i> = 285)	Nonpatient (<i>N</i> = 180)	Outpatient (<i>N</i> = 64)	Inpatient (<i>N</i> = 41)
Age (in years)				
Mean	23	19	23	33
Range	18–60	18–49	18–60	18–49
Gender (%)				
Male	42	47	27	46
Female	58	53	73	54
Ethnicity (%)				
Caucasian	83	83	96	85
Asian	1	10	2	0
Hispanic	2	3	2	10
Native American	7	2	0	5
African American	6	1	0	0
Marital status (%)				
Single	83	93	81	51
Married	6	4	8	7
Separated	2	1	0	10
Divorced	7	0	6	29
Widowed	1	0	2	2
Children				
Mean	0	1	1	0
<i>SD</i>	1	2	1	1
Education (years)				
Mean	13	12	13	12
<i>SD</i>	2	3	2	2
Yearly salary				
Mean	14,202	10,619	14,213	17,094
Range	0–85,000	0–40,000	1500–85,000	0–65,000
Mental health services				
Current	24	100	33	0
Past	38	95	89	0
Hospitalization	18	100	0	0

separated. The mean education was 12.7 years, and the mean income was \$14,202. Table 1 provides demographic information across the three samples.

Of the 285 participants, 33% reported experiencing child sexual abuse. Of the 33% of participants who reported CSA, 16% reported witnessing unwanted sexual activity, 45% unwanted sexual advances, 34% unwanted sexual pressure, and 15% reported forced sexual encounters. See Table 1. The mean age of the onset of abuse was 10 years with a reported range of 1 to 18 years of age. The majority of participants reporting sexual abuse were female (70%), and the majority of offenders were male (80%). The participants reported the perpetrator of the abuse most often to be the parent (27%), friend of the family (20%), authority figure (18%), relative (13%), acquaintance of the family (13%), sibling (6%),

Table 2
Demographic information of childhood sexual abuse victims

Characteristic	Entire (<i>N</i> = 85)	Nonpatient (<i>N</i> = 33)	Outpatient (<i>N</i> = 36)	Inpatient (<i>N</i> = 26)
History of abuse (%)	33	18	56	63
Victim's age				
Mean	10	13	11	8
SD	5	5	4	3
Victim's gender (%)				
Male	30	28	22	42
Female	70	72	78	58
Offender gender (%)				
Male	80	88	81	71
Female	20	13	19	29
Relation to offender (%)				
Father	19	17	22	17
Mother	8	4	9	8
Friend	20	21	28	8
Authority	18	29	6	21
Relative	13	0	13	25
Acquaintance	13	21	13	4
Sibling	6	4	6	8
Stranger	5	4	3	8
Duration (%)				
Once	28	48	24	12
One day to one week	11	7	21	0
One week to one month	8	7	9	8
One to six months	7	0	9	12
Six months to one year	9	11	6	12
One to two years	7	7	6	8
Two to five years	13	11	18	8
Over five years	7	7	6	8
Over ten years	9	0	0	32
Frequency (%)				
One time	29	41	29	14
Two to five times	22	26	32	0
Six to 20 times	18	26	6	24
Twenty to 50 times	13	4	13	24
Over 50 times	8	4	10	10
Over 100 times	11	0	10	29

and a stranger (5%). The mean duration and the frequency of abuse as well as other characteristic of the abuse can be found in Table 2.

Differences in age, gender, and marital status were found between the three groups. Initially, data were analyzed with three covariates (gender, age, and marital status) using a MACOVA across the 12 subscales and the Global Severity Index (GSI) of the SCL-90-R. No significant differences were found using the main effect of age, gender, or marital status, therefore subsequent analyses were performed for the main

Table 3
Group means and standard deviations on SCL-90-R scales

SCL-90-R scale	Abused		Nonabused	
	Mean (<i>N</i> = 85)	<i>SD</i>	Mean (<i>N</i> = 172)	<i>SD</i>
Som.	.79	.63	.69	.63
O.C.*	1.35	.87	1.09	.82
I.S.*	1.31	.93	1.02	.91
Dep.*	1.36	.89	1.09	.86
Anx.**	1.05	.92	.69	.70
Hos.	.82	.75	.77	.77
P.A.*	.57	.80	.36	.57
P.I.	1.03	.83	.84	.82
P.S.	.81	.82	.63	.75
G.S.I.	1.04	.70	.83	.66

Som.: Somatization; O.C.: Obsessive Compulsive; I.S.: Interpersonal Sensitivity; Dep.: Depression; Anx.: Anxiety; Hos.: Hostility; P.A.: Paranoia; P.I.: Phobic Ideation; P.S.: Psychosis; G.S.I.: Global Severity Index. * $p < .05$. ** $p < .01$. *** $p < .001$.

effect of abuse. Results revealed a significant main effect of abuse. Subsequent ANOVAs were performed, and a significant main effect of abuse was found on the Obsessive Compulsive scale, $F(1, 229) = 5.25$, $p = .02$; Interpersonal Sensitivity scale, $F(1, 228) = 5.60$, $p = .02$; Depression scale $F(1, 229) = 5.30$, $p = .02$; Anxiety scale $F(1, 229) = 10.71$, $p = .002$; Phobic Ideation scale $F(1, 229) = 5.62$, $p < .02$; and Global Severity Index $F(1, 229) = 5.28$, $p = .02$. The participants who reported a history of sexual abuse had higher scores on each of these scales when compared to participants who reported no history of abuse (see Table 3).

To test the proposed model, 9 predictor variables and 11 mediating variables were initially analyzed with 1 dependent variable, psychological distress (Global Severity Index of the SCL-90-R) from the participants who reported a history of CSA. Non-zero order correlations were performed to determine variables that were significantly related. Nonsignificant paths were removed from the model. Beginning with the fully saturated model, six significant variables (predictors and mediating variables) were found to have a direct effect on the dependent variable (Global Severity Index of the SCL-90-R). Significantly correlated predictor variables were maintained as independent variables rather than being combined to be able to gain a better understanding of how each of the variables contributed to the mediating and dependent variable. See Table 4 and Figure 1.

The predictor variables, Relation with Offender and Force used by the offender were not found to be related directly to the dependent variable psychological distress nor any of the mediating variables of coping or attributional style. However, both of these variables were significantly related to other abuse-related characteristics such as Age of Onset and Participation by the victim, and therefore remained in the present model. See Table 4 and Figure 1.

Resistance by the victim was associated with Confrontive Coping, and through this mediating related to Psychological Distress. The variables Age of Onset and Participation in the sexual assault were found to be associated with Accepting Responsibility for the abuse and current Psychological Distress. Participation was found to be related through the mediation of Internalization of the Abuse.

Table 4
Adjusted R-squared of all variables entered into the model

Dependant	Independent																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	-.01	.47	-.20	-.05	-.21	-.08	.20	.03	-.14											
10	-.06	-.09	.02	.31	-.31	-.14	.03	-.21	-.30*											
11	.08	.13	-.01	.04	.11	-.36*	-.12	.14	.21											
12	.31	.55*	-.14	.02	-.01	.18	.02	.01	-.12											
13	.04	.04	.32	-.15	-.00	-.11	.14	.14	-.06											
14	.15	-.02	.04	-.11	.22	-.11	.03	.18	.20											
15	.30	-.05	.03	.06	-.40*	-.10	.04	.00	.04											
16	-.00	-.05	.24	-.13	-.21	-.20	.09	-.04	-.02											
17	.08	.59*	-.38	-.13	.01	-.10	-.26	.05	.10											
18	.11	.00	.05	-.27	.17	-.26	-.11	.14	-.01											
19	.18	.71*	-.45	.13	-.32	.06	.17	-.03	-.26*											
20	.19	.71**	-.32	.03	-.38	-.08	-.04	-.06	-.11											
21	-.03	-.08	-.10	-.00	-.10	.06	.27*	.05	-.06	-.02	.35*	.22	.18	-.35**	-.37*	.33	.12	-.00	-.02	.44**

(1) Victim Age, (2) Duration, (3) Frequency, (4) Force, (5) Participation, (6) Resistance, (7) Number of Offenders, (8) Relationship with Offender, (9) Gender Difference, (10) Disclosure, (11) Confrontive Coping, (12) Distancing, (13) Self-Control, (14) Seeking Social Support, (15) Accepting Responsibility, (16) Escape-Avoidance, (17) Planful Problem-Solving, (18) Positive Reappraisal, (19) Internal-Global Stable Attributional Style, (20) Internalization of Sexual Abuse, (21) Global Severity Index. * $p = .05$. ** $p = .01$. *** $p = .001$.

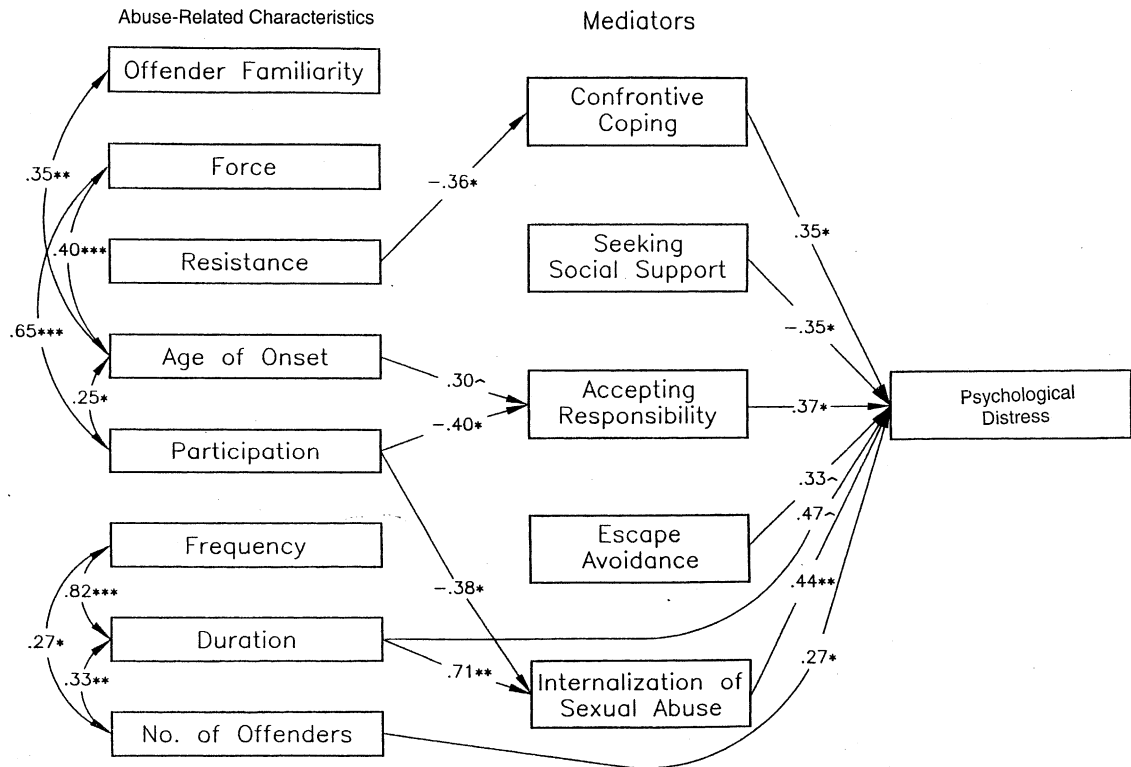


Figure 1. Path model: entire sample.

A second set of predictor variables, Frequency, Duration, and Number of Offenders were found to be associated, directly and indirectly, with Psychological Distress (e.g., GSI). Frequency of Abuse was included in the model secondary to its correlation with Duration of the Abuse and Number of Offenders but was not found alone to be associated with any of the mediating or the dependent variables. Duration of the abuse was found to be directly associated with Psychological Distress as well as Internalization of the Abuse. The variable Number of Offenders was also found to be directly associated with Psychological Distress was not mediated through coping or attritional style.

Discussion

The results of the present study confirm previous research regarding the prevalence of CSA as well as the association of CSA with increased long-term psychological distress (Jacobson & Herald, 1990; Lipschitz, Kaplan, Sorkenn, & Faedda, 1996; Mullen, Martin, Anderson, Romans, & Herbison, 1993; Wurr & Partridge, 1996). In the present study, 18–63% of the participants reported a history of CSA depending on the population in which participants were drawn. Furthermore, history of CSA was found to be associated with several scales of the SCL-90-R reflecting the findings of previous studies, which report an association between CSA and psychological symptoms in adulthood.

The most novel aspect of this study was the testing of the model, which included both abuse-related characteristics as well as previously studied mediating variables. Several of the abuse-related characteristics were found to be associated with overall psychological distress but through the mediation of specific coping strategies or attributions of the abuse. This finding may explain the inconsistency across previous studies concerning the relationship between abuse-related characteristics and later psychological distress (Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Heath et al., 1996; Johnson et al., 2001; Pettigrew & Burcham, 1997).

The model demonstrates that two abuse-related characteristics were directly related to long-term psychological distress the Number of Offenders and the Duration of the Abuse. All other abuse-related characteristics were mediated by variables measuring coping or attributional style. One might expect that if a person experienced abuse by several offenders, the victim would experience greater levels of distrust, shame, and difficulties coping. Furthermore, the greater number of persons in their life perpetrating abuse also limits their ability to disclose the abuse and obtain the social support that might buffer the experience of abuse, either practically or psychologically. The findings of this study were consistent with previous research in that a relationship between multiple perpetrators was associated with a greater level of negative long-term effects (Hall, 1999).

A positive correlation was found between the duration of abuse and the level of psychological distress reported by the participant. This finding is also consistent with previous research in which duration of the abuse was found to be directly related to increased psychological distress (Bennett et al., 2000; Rodriguez, Vande Kemp, & Foy, 1998). According to the results of the present study, the duration of abuse was found to be related to poorer adjustment in adulthood, however, this was mediated by the internalization of the abuse. The longer the abuse persists the more likely the individual is to attribute the blame for the abuse internally. If an experience, particularly a trauma, occurs only once it may be more easily attributed to chance. However, if the trauma occurs for a long period of time, it is more likely that an individual will attribute such an event something stable within themselves.

The first set of correlated predictor variables (i.e., Relation with Offender, Force, Resistance, Age of Onset, and Participation) was found to be associated with long-term psychological distress through the mediation of three variables (i.e., Confrontive Coping, Accepting Responsibility, Internalization of the Abuse). The age in which the victim experienced the abuse and the familiarity with the offender were found to be correlated. Furthermore, the older the victim the more likely they would be familiar or related to the offender. Force was also found to be associated with Age of Onset and Participation. The offender was reported to use more force with adolescent victims than children. Older children or adolescents may be more likely to resist the abuse, and therefore force may need to be used by the offender to carry out the abuse. In addition, Age of Onset of the abuse and Force were associated with the individual reporting a greater level of participation in the abuse. It is more likely that an adolescent would be involved sexually involved with the perpetrator due to the developmental stage of the victim.

Studies have found that prepubertal children who are sexually abused experience greater psychological distress than postpubertal children; the opposite, however, has also been reported (Liebschutz et al., 2002), and some researchers have found no relationship between age of onset of the abuse and psychological symptomatology (Feinauer, Mitchell, James, & Dane, 1996; Kendall-Tackett, Williams, & Finkelhor, 1993; Liem, James, O'Toole, & Boudewyn, 1997).

In our study, the variables Age of Onset, as well as Force, Relation with Offender, and Participation were found to be associated to Accepting Responsibility for the CSA. In the present study, the older the individual at the time of the abuse, the more likely the individual was to accept responsibility for the

CSA. Participation in the sexual abuse was also found to be associated with accepting more responsibility for the CSA as well as the internalization of the abuse experience. Logically, participation in the abuse was found to lead to greater feelings of responsibility for the abuse and internalization of the abuse experience. The victim's participation in the abuse has not received much attention in the literature even though 54% of the participants who were abused in this study reported some level of participation in the abuse. It is not known if the participation was real or perceived, only that the individual reported that they "participated in the abuse incident." Although participation itself was not found to be associated to long-term psychological sequelae, it significantly contributed to two mediating variables, Accepting Responsibility and Internalization of the Abuse, which contributed to negative long-term psychological sequelae in adulthood.

The variable Resistance was not found to be correlated with the above predictor variables but was found to be associated with Confrontive Coping. Lazarus and Folkman (1984) described Confrontive Coping as aggressive efforts to alter the situation and suggest some degree of hostility and risk taking. It would be expected that these variables would be associated with a positive outcome and less short- and long-term distress. In contrast, the results of the present study found that Resistance, as mediated through Confrontive Coping, was found to be positively associated with negative long-term psychological sequelae in adulthood. Several reasons may account for this relationship including the victim might have experienced a negative reaction from the offender or their own family as a result of the resistance. It may be that the offender may have been more likely to threaten the victim as the offender knew the individual was not a willing participant and more likely to disclose the abuse subsequently resulting in increased psychological distress.

Escape-Avoidance and Seeking Social Support coping strategies were not found to be associated with any of the predictor variables, but these coping strategies were found to be associated with long-term psychological distress. Escape-Avoidance coping strategies can be adaptive if used for short periods of time and not generalized to all or most stressful situations. As with previous research, this study also found that the use of Escape-Avoidance coping strategies to manage the abuse experience was found to be related to increased psychological distress as an adult. Seeking social support was negatively linked to long-term psychological distress, suggesting those who did not use social support as a coping strategies experienced greater level of distress in adulthood. Social support has long been found to be associated as a buffer with stressful events, including CSA in both children and adults and this finding was replicated in the present study (Avery, Massat, & Lundy, 1998; Morrison & Clavenna-Valleroy, 1998; Runtz & Schallow, 1997; Tremblay, Hebert, & Piche, 1999).

Internalization of the abuse experience or self-blame has been demonstrated in previous research to be associated with a variety of psychological symptomatology (Barker-Collo, 2001; Joseph, Brewin, Yule, & Williams, 1991; McMillan & Zuravin, 1997; Morrow, 1991; Wyatt, Newcomb, & Notgrass, 1991). More specifically, persons with a history of CSA who report internal, global, and stable negative attributions regarding the abuse have been found to be associated with poorer adjustment in adulthood including borderline ideation and anger (Briere & Runtz, 1989), Post Traumatic Stress Disorder (Wyatt et al., 1991), and suicidal ideation (Peters & Range, 1996; Xavier, Law, Tobias, & Hawton, 1998). The present study confirmed previous research in that participants who reported internalization of the abuse had greater psychological distress in adulthood.

The retrospective accounts of the abuse and coping strategies used during the abuse is a limitation of this study. However, as part of this study the participants were asked to complete a second Ways of Coping Questionnaire requesting the participants to recall a stressful event in the

past seven days and record the coping strategies they used to manage the event. Interestingly, the participants reported employment of different coping strategies to manage the current stressor when compared to the stressor of the abuse experience. Furthermore, the hypothesis regarding the relationship between abuse-related characteristics and the dependent variables were in the expected direction.

Second, the collinearity among variables was analyzed and two sets of variables were found to be correlated [(1) Relation with Offender, Force, Resistance, Age of Onset, and Participation; and (2) Frequency, Duration, and Relation with Offender]. Oftentimes when predictor variables are found to be correlated, as in the present study (see Figure 1), researchers combine the variables to reduce to the number of predictor variables and increase power. However, for the purposes of the present study, the variables were not combined to facilitate the understanding of how these variables individually contribute to mediating variables and directly with psychological distress in adulthood. Future research should employ structural equation modeling, which may combine correlated variables and take into account measurement error within each of the latent variables. Finally, this was a cross-sectional study. Prospective studies are needed to understand better the process and development of long-term psychological symptomatology in adults with a history of CSA.

The results of the present study, and particularly the testing of the model including abuse-related characteristics and mediating variables, significantly contributed to our understanding of the role of abuse-related and mediating factors in the development of long-term psychological sequelae in adulthood. Previously studied abuse-related characteristics (e.g., frequency of abuse, age of onset) as well as new abuse-related characteristics (e.g., participation) were included in the model. Furthermore, a combination of variables including social support, coping strategies, and attributional style were explored as mediators between abuse-related characteristics and psychological symptomatology in adulthood. Finally, participants from three samples (inpatient psychiatric, outpatient psychiatric, and the general population) were included in the study to increase the variance associated with the prevalence of abuse as well as psychiatric symptomatology.

Primary prevention of child abuse is necessary; however, it is not likely that CSA will be completely eradicated and, therefore, continued research concerning the secondary prevention of the development of psychiatric sequelae subsequent to CSA symptoms is needed. Previous research has primarily focused on abuse-related characteristics that are not amenable to intervention. More recent research has begun to address mediating factors, which may be amenable to intervention (e.g. coping, attributional style). Identification of relevant factors may assist clinicians in developing treatment strategies to decrease the severity and duration of psychological symptoms subsequent to CSA. Prospective research following children and adolescence from the time of the abuse through adulthood would be beneficial in understanding which factors, as well as temporal relationships between factors, associated with the development of psychopathology.

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Résumé

Objectif: Le but de cette étude fut de tester un modèle qui pourra prédire certains qui contribuent à des séquelles psychologiques chez des adultes ayant vécu des agressions sexuelles en enfance, ces facteurs étant: certaines caractéristiques de la maltraitance et des variables telles que la capacité de faire face aux difficultés de la vie et la façon dont l'individu attribue la responsabilité pour des événements qui lui arrivent.

Méthode: Deux cent quatre-vingt cinq hommes et femmes ont complété un ensemble de questionnaires y compris (1) le Sexual History Questionnaire, (2) le Ways of Coping Questionnaire, (3) le Attributional Style Questionnaire et (4) le SCL-90-R. Il y avait trois types de participants: des non patients, des patients d'un service externe de psychiatrie et d'un service interne de psychiatrie.

Résultats: Parmi les 285 participants, 33% rapportent avoir été l'objet de contacts sexuels non voulus ou forcés avant l'âge de 18 ans. Ils rapportent vivre une détresse psychologique plus élevée que les participants non victimes. En testant le modèle, lequel porte sur (1) le lien entre les caractéristiques de la victime et de l'agresseur, (2) les variables qui affectent l'expérience et (3) la détresse psychologique en âge adulte, on a noté que deux facteurs de maltraitance (le nombre d'agresseurs et la durée des agressions) s'associaient directement à la détresse en âge adulte. D'autres variables (soit la relation entre la victime et l'agresseur, le recours à la force, la résistance, l'âge de la victime au moment de la première agression, la participation de la victime et la fréquence des agressions) sont reliées à la détresse psychologique; et certaines stratégies pour faire face aux difficultés (accepter une part de la responsabilité, la confrontation) et des modes d'attribution (soit l'intériorisation de la maltraitance) agissent en tant qu'agent médiateur.

Conclusions: Les résultats de cette étude ont amélioré nos connaissances sur la relation entre les caractéristiques de l'agression, les facteurs médiateurs (tels que la façon de faire face aux difficultés et la façon d'attribuer la responsabilité), et la détresse psychologique en âge adulte chez des sujets victimes d'agressions sexuelles en enfance. De nouvelles recherches devront tenter d'élaborer des interventions qui ciblent les variables aptes à profiter de la psychothérapie, afin d'alléger les séquelles psychologiques des agressions sexuelles.

Resumen

Objetivo: El objetivo de este estudio consistió en evaluar un modelo que predice la contribución de las características relacionadas con el abuso y de variables mediadoras como el coping y el estilo atribucional en el desarrollo de las secuelas psicológicas en adultos que notifican una historia de abuso sexual infantil.

Metodología: Un total de 285 varones y mujeres pertenecientes a tres contextos diferentes (pacientes internos psiquiátricos, pacientes externos psiquiátricos y no pacientes) completaron una batería de cuestionarios que incluyó (1) el Cuestionario de Historia Sexual, (2) el Cuestionario de Formas de Coping, (3) el Cuestionario de Estilo Atribucional y (4) el SCL-90-R.

Resultados: De los 285 participantes, un 33% notificaron un contacto sexual no deseado o forzado antes de los 18 años. Los participantes que notificaron una historia de abuso sexual infantil también notificaron elevados niveles de malestar psicológico cuando fueron comparados con aquellos que no notificaron una historia de abuso sexual. En relación con la evaluación del modelo presentado, se observó que dos características relacionadas con el abuso (número de ofensores y duración del abuso) estaban directamente asociadas con malestar psicológico en la edad adulta. Otras variables relacionadas con el abuso (relación

con el agresor, uso de la fuerza física, resistencia, edad de aparición, participación y frecuencia del abuso) estaban relacionadas con el malestar psicológico en la edad adulta a través de la mediación de varias estrategias de “coping” (p.e., aceptación de la responsabilidad, “coping” de confrontación) y atribuciones (p.e., internalización del abuso).

Conclusiones: Los resultados del presente estudio ayudan a avanzar en la comprensión de la relación entre las características del abuso, los factores mediadores como el “coping” y el estilo atribucional, y el malestar psicológico en adultos con historia de abuso sexual infantil. La investigación futura se debe centrar en el desarrollo de intervenciones que se focalicen en las variables susceptibles de adecuación a la psicoterapia para la mejora de las secuelas psicológicas del abuso sexual infantil.