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**Attachment and Object Relations:
Mediators Between Child Sexual Abuse and Women's Adjustment**

by

**Diane N. Roche
B.A., Simon Fraser University, 1991
M.A., University of Victoria, 1995**

**A Dissertation Submitted in Partial Fulfillment of the
Requirements for the Degree of**

DOCTOR OF PHILOSOPHY

in the Department of Psychology

**We accept this dissertation as conforming
to the required standard**

Dr. Marsha G. Runtz, Supervisor (Department of Psychology)

Dr. Michael A. Hunter, Departmental Member (Department of Psychology)

Dr. Marion F. Ehrenberg, Departmental Member (Department of Psychology)

Dr. Frances A. S. Ricks, Outside Member (School of Child and Youth Care)

**Dr. John N. Briere, External Examiner (Department of Psychiatry and Behavioral
Sciences, University of Southern California School of Medicine)**

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University of Victoria**

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Supervisor: Dr. Marsha G. Runtz

ABSTRACT

This study investigated the nature of the relationship among child sexual abuse, interpersonal relationship capacity and psychological adjustment. Interpersonal relationship capacity included the constructs of attachment, measured by the Relationship Questionnaire, and object relations functioning, measured by the Bell Object Relations and Reality Testing Inventory. Psychological adjustment included the constructs of trauma-related symptoms, measured by the Trauma Symptom Inventory and supplemented by the Posttraumatic Stress Diagnostic Scale, and interpersonal problems, measured by the Inventory of Interpersonal Problems. Participants were 118 women from a clinical and community sample, including 58 women who reported a history of child sexual abuse and 60 women who reported no such history. Thirty-three women reported a history of intrafamilial child sexual abuse or both intrafamilial and extrafamilial child sexual abuse and 26 women reported a history of extrafamilial child sexual abuse only.

The pattern of results indicated that child sexual abuse predicted both interpersonal relationship capacity and psychological adjustment and that interpersonal relationship capacity predicted psychological adjustment. In addition, a mediational model in which interpersonal relationship capacity mediates the relationship between child sexual abuse and psychological adjustment was supported. This suggests that relationship capacity may be a process through which the impact of child sexual abuse influences later psychological adjustment. No differences were found between women

who had experienced intrafamilial child sexual abuse and women who had experienced extrafamilial child sexual abuse. When the separate components of each construct in the model were considered, attachment mediated the relationship between child sexual abuse and trauma-related symptoms and also mediated the relationship between child sexual abuse and interpersonal problems. Object relations functioning mediated the relationship between child sexual abuse and trauma-related symptoms, but did not mediate the relationship between child sexual abuse and interpersonal problems. Again, no differences were found between women who had experienced intrafamilial child sexual abuse and women who had experienced extrafamilial child sexual abuse. Results are discussed in terms of the implications for appropriate therapy approaches with survivors of child sexual abuse.

Examiners:

Dr. Marsha G. Runtz, Supervisor (Department of Psychology)

Dr. Michael A. Hunter, Departmental Member (Department of Psychology)

Dr. Marign F. Ehrenberg, ~~Departmental~~ Member (Department of Psychology)

Dr. Frances A. S. Ricks, Outside Member (School of Child and Youth Care)

Dr. John N. Briere, External Examiner (Department of Psychiatry and Behavioral Sciences, University of Southern California School of Medicine)

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Attachment and Object Relations:**Mediators Between Child Sexual Abuse and Women's Adjustment****INTRODUCTION**

In every country where researchers have asked about child sexual abuse, they have found that a significant percentage of the adult population acknowledge a history of child sexual abuse (Finkelhor, 1994). This is an important problem that merits considerable and continuing scientific research. If we accept that the link between child sexual abuse and later symptoms has been established, we must next ask about the nature of this relationship. One possibility is that child sexual abuse leads directly to impaired adult psychological adjustment. Another possibility is that child sexual abuse leads indirectly to impaired adult psychological adjustment via its impact on other mediating variables. If we accept that the link between child sexual abuse and later difficulties is direct, we might be unnecessarily pessimistic about the prognosis for survivors of abuse because nothing can be done to change the fact that one in every six women has experienced child sexual abuse (Gorey & Leslie, 1997). In contrast, if mediating variables that are amenable to intervention can be identified, we can be much more hopeful. A focus on the mediational factors that help to explain women's adjustment following child sexual abuse implies, for example, that addressing a mediating variable in therapy might allow an individual to improve her ability to cope with a difficult early history. Clinicians potentially can have an impact on the mediator, and hence assist clients with regard to psychological adjustment.

One domain that seems important to consider in terms of its potential to mediate between childhood sexual abuse and current psychological adjustment is the capacity to form interpersonal relationships. Because child sexual abuse occurs in the context of human relationships, sexual abuse can cause a disruption in the normal process of learning to trust, act autonomously, and form stable, secure relationships (Elliott, 1994). In turn, one's interpersonal relationship capacity is likely to impact psychological adjustment. It is for this reason that I have chosen to examine the potential of the interpersonal relationship capacity, including adult attachment and object relations functioning, to mediate between child sexual abuse and adult adjustment.

With their focus on the interpersonal relationship context surrounding abuse, attachment and object relations theories are very applicable to understanding the process of therapy with abuse survivors (see also Alexander, 1993). Both theories address the capacity for interpersonal relatedness and the experience of self in relation to others, which are concerns central to most people (Bell, 1995). An important goal in therapy is often the reappraisal of an inadequate understanding of the self in relation to important others. Notably, these models of the self and others are not simply determined by past relationships but also interact with current relationships (Kobak & Hazan, 1991). Both the therapy relationship and current close interpersonal relationships offer child sexual abuse survivors an opportunity to modify implicit expectations about the self, others, and relationships.

Clearly, it is important not only to investigate the prevalence of child sexual abuse and its associated sequelae, but also to consider the processes through which child sexual abuse might lead to long-term problems in adjustment. If mediational variables that explain the relationship between child sexual abuse and psychological difficulties can be discovered, results from research in this area will be useful to women who are seeking relief from current psychological difficulties. That is, by focusing on making changes to these mediational factors, women can achieve higher levels of adaptive functioning.

This study is an attempt to identify possible mediators in the domain of the interpersonal relationship capacity (i.e., adult attachment, and object relations functioning). I expect that child sexual abuse will predict attachment and object relations functioning, as well as adult adjustment, and that attachment and object relations dimensions will predict psychological adjustment. Additionally, attachment and object relations functioning should continue to predict psychological adjustment after accounting for the effects of child sexual abuse, whereas accounting for the influence of attachment and object relations functioning should reduce the magnitude of the direct impact of child sexual abuse on psychological adjustment.

LITERATURE REVIEW

Child Sexual Abuse Experiences: Prevalence and Characteristics

Child sexual abuse – any sexual activity with a child where consent is not or cannot be given (Finkelhor, 1979) – is a relatively prevalent phenomenon. In every country where researchers have asked about child sexual abuse, they have found that a substantial percentage of the adult population acknowledge a history of such abuse (Finkelhor, 1994). In some of these studies, child sexual abuse is broadly defined to include exhibitionism and propositions, whereas in a smaller number of prevalence studies (Canada, Finland, Germany, and the Netherlands), child sexual abuse is more narrowly defined. Recent epidemiological studies conducted in various countries have found rates ranging from 3% for men in Sweden and Switzerland to 36% for women in Austria (Finkelhor, 1994). The Canadian lifetime prevalence rate, based on a reanalysis (Bagley, n.d.; cited in Finkelhor, 1994) of the Badgley Commission report (1984), and using a definition of child sexual abuse that did not include exhibitionism and propositions, has been placed at about 18% for women (8% for men).

Gorey and Leslie (1997) make the point that prevalence studies are somewhat limited by the fact that there has been no large population-based study with both probability sampling and very high participation. Given that there is an inverse relationship between a study's response rate and the prevalence rate, an adjustment for response rate probably provides a more accurate estimate. Gorey and Leslie suggest that the adjusted prevalence rate is 12% to 17% for women (5% to 8% for men); this rate is similar in magnitude to the Canadian prevalence rate reported by Bagley.

Regardless of the “true” prevalence rate of child sexual abuse, it is apparent that a sizeable minority of the general population has experienced sexual abuse as a child. This is an important problem that merits considerable and continuing scientific research. Clearly, empirical investigations examining the link between abuse and later psychological adjustment have important implications, both for clinical interventions and for social policy (Briere, 1992a).

As discussed by Berliner and Elliott (1996), the characteristics of child sexual abuse vary depending on the data considered. Relative to non-clinical samples, where intrafamilial sexual abuse constitutes approximately 25% of child sexual abuse cases, clinical samples and child abuse reporting systems tend to over-represent intrafamilial abuse cases, and find that rates of intrafamilial abuse account for approximately 50% of all child sexual abuse cases. In both clinical and non-clinical samples, the majority of offenders are male, although boys may be more likely than girls to be abused by women (Finkelhor & Russell, 1984), and abuse by female offenders is probably substantially more common in day care settings (Finkelhor, Williams, & Burns, 1988). Completed or attempted penetration (anal, oral, or vaginal) occurs in 20 to 49% of non-clinical samples (Finkelhor et al., 1990) and in more than 60% of cases in forensic samples (Elliott & Briere, 1994, Gomez-Schwartz et al., 1990). The mean age for the onset of sexual abuse is approximately 9 years old, with a range from infancy to 17 years old (Berliner & Elliott, 1996). In both clinical and non-clinical samples, multiple abuse episodes of child sexual abuse are very common, occurring in about 50% of

cases in non-clinical samples and 75% of cases in clinical samples (Elliott and Briere, 1994).

Children who have been sexually abused, either inside or outside their families, tend to come from families that are more dysfunctional than families of non-abused children (Elliott, 1994; Friedrich, 1990; Harter, Alexander, & Neimeyer, 1988). Research (Elliott, 1994; Harter, Alexander, & Neimeyer, 1988) and clinical observation (Friedrich, 1990) suggests that families of CSA victims are less cohesive, more disorganized, and generally more dysfunctional than families of non-abused individuals. However, it appears that families in which intrafamilial abuse has occurred do exhibit greater dysfunction; the family dysfunction may increase the risk for abuse, or it may be a result of the occurrence of abuse (Alexander, 1992; Briere & Elliott, 1993).

Although research examining the experiences of male victims of child sexual abuse is obviously also important, the present study examines women's experiences. Consequently, the remainder of this literature review focuses primarily on the impact of child sexual abuse on women, and cannot be automatically extended to include men (for an example of research focusing on male victims, see Friedrich, Beilke, & Urquiza, 1988).

Research suggests that less than one half of victims tell anyone about the child sexual abuse at the time that it occurs (Berliner & Elliott, 1996). For example, Elliott (1994) found that among professional women who were abused as children, only 20% had disclosed the abuse immediately, and an additional 40% had disclosed sometime

later; 40% of women had never disclosed prior to completing Elliott's survey in adulthood. Similarly, Finkelhor, Hotaling, Lewis, and Smith (1990) found that 33% of women had never disclosed prior to the time of data collection.

Child Sexual Abuse Sequelae

Children

Studies of the impact of child sexual abuse on children indicate that a wide range of subsequent problems is related to experiencing child sexual abuse. Although there is not a discrete set of symptoms that can be considered definitively characteristic of child sexual abuse, it is frequently associated with a wide range of subsequent problems in a large proportion of victims. Child sexual abuse can be considered a serious mental health problem in the lives of children (e.g., Kendall-Tackett, Williams, & Finkelhor, 1993; Berliner & Elliott, 1996). Unlike studies of adults that have been conducted with clinical, community, and university samples, most of the research on child sexual abuse in children has utilized clinical samples. It is not clear to what extent results generalize to non-clinical samples; however, a study of non-clinical adolescents suggests that sexually abused adolescents also report higher rates of emotional and behavioral problems than their non-abused peers (Boney-McCoy & Finkelhor, 1995).

Kendall-Tackett, Williams, & Finkelhor's (1993) review and synthesis of empirical studies on the impact of child sexual abuse on children demonstrates that abused children have more symptoms than non-abused children, and that abuse accounts for 15-45% of the variance in symptoms. The most frequently occurring symptoms are fears, PTSD, behavior problems, sexualized behaviors, and poor self-esteem.

Differentiating the samples analyzed in their study on the basis of major age groups allowed Kendall-Tackett, Williams, and Finkelhor (1993) to determine that for preschoolers, the most common symptoms are anxiety, nightmares, general PTSD, internalizing, externalizing, and inappropriate sexual behavior. For school-age children, the most common symptoms also include fear and nightmares, but in addition, include “neurotic and general mental illness”, aggression, nightmares, school problems, hyperactivity, and regressive behavior. For adolescents, the most common symptoms are somewhat different, and include depression, withdrawal, suicide attempts or self-injurious behaviors, somatic complaints, illegal acts, running away, and substance abuse. Kendall-Tackett and Finkelhor’s review suggests that generalizing across age groups has probably tended to distort the patterns of symptoms because much symptomatology may be developmentally specific.

Browne and Finkelhor’s (1986b) theory of “traumagenic dynamics” specifies four trauma-causing factors that specify how sexual abuse might result in symptoms. These factors are: traumatic sexualization (a child’s sexuality is shaped in a developmentally inappropriate and interpersonally dysfunctional fashion), betrayal (children discover that someone on whom they are dependent has caused them harm), powerlessness (the child’s will, desires, and sense of efficacy are contravened), and stigmatization (the negative connotations such as badness, shame, and guilt, are communicated to the child and become incorporated into the child’s self-image). The four dynamics are not seen as exclusive to sexual abuse, but it is theorized that the conjunction of all of them together make the trauma of sexual abuse unique.

Kendall-Tackett, Williams, and Finkelhor (1993) suggest that no one symptom characterizes the majority of sexually abused children. Moreover, approximately one third of the sexually abused children were symptom free at the time of the study. This could be due to inadequate measures, a “sleeper effect” (the fact that problems had not yet appeared), or the fact that a portion of the children were truly less affected by the sexual abuse. These less affected children could be those with the least damaging abuse, or for whom mediating factors (some of which are discussed later in this paper) served to reduce the impact of abuse. These factors that potentially serve to promote resilience are important to study.

Adults

The results from individual studies of adults who have experienced child sexual abuse are comparable to the results from studies of sexually abused children, and support the existence of a positive relationship between child sexual abuse and impaired psychological adjustment (Jumper, 1995). Most empirical studies of adult samples in the last twenty years have demonstrated a wide variety of psychological symptoms among women who have a history of child sexual abuse (Newmann et al., 1996). The combined positive findings in this literature have led many researchers to conclude that sexual abuse is a significant long-term mental health hazard (e.g., Briere & Runtz, 1993).

Qualitative reviews of this literature investigating specific outcomes began appearing as early as 1986. Browne and Finkelhor’s (1986a) review, along with later reviews (e.g., Beitchman et al., 1992; Briere & Runtz, 1991), suggested that women

who were sexually abused as children are likely to experience anxiety, depression, poor self-esteem, and feelings of isolation and stigmatization, as well as to have a tendency toward revictimization, and to engage in self-destructive and substance abusing behaviors. Other symptoms found in individual studies or pointed out by commentators include suicidal ideation and behaviors, dissociation, PTSD symptoms, physical problems, anger, difficulties with self-integration, and problems in interpersonal relationships (e.g., Briere, 1992a; Briere & Runtz, 1993; Cole and Putnam, 1992; Elliott, 1994; Rodriguez, Ryan, Vande Kemp, & Foy, 1997).

Symptoms experienced by women with a history of CSA may be conceptualized as specific psychological symptoms that are “trauma-related” (such as anger, anxiety, depression, PTSD symptoms, dissociation, and sexual problems) as well as more diffuse problems centered around difficulties in interpersonal relationships. Investigating only trauma-related symptoms may underestimate or misrepresent the extent and nature of the difficulties experienced by survivors of CSA. Furthermore, survivors of CSA who present themselves for treatment as adults often seek assistance due to problems in current interpersonal relationships. Therefore, it is important to include an exploration of interpersonal relationship variables in research examining the long-term sequelae of CSA.

Because individual studies have been of inconsistent methodological quality and have in many cases used dissimilar sampling strategies and different definitions of child sexual abuse, meta-analyses of the literature on child sexual abuse have begun to appear. Generally, recent meta-analyses of the sexual abuse literature confirm the

findings of these earlier qualitative reviews, indicating that there is a significant relationship between a history of child sexual abuse and later difficulties in psychological adjustment (Jumper, 1995; Newmann et al., 1996). These meta-analyses estimate the amount of variation in adults' symptomatology accounted for by a history of child sexual abuse to be 7 to 13%. However, a recent meta-analysis of studies based on college samples by Rind et al. (1998) contradicts these findings to some extent. Rind et al. found that although students who had been the victims of child sexual abuse were somewhat less well adjusted than students who had not suffered such abuse, there was a great deal of individual variability in their self-reports of how the abuse had affected them, ranging from highly negative to somewhat positive.

In a sophisticated meta-analytic study of the literature, Newmann et al. (1996) examined studies that met the following criteria: a) the study was designed to examine psychological or behavioral correlates of child sexual abuse in groups of adult females; b) results were based on empirical measures (as opposed to clinical impressions); and c) the comparison groups used in the study were equivalent to the child sexual abuse group in terms of clinical status. Studies were excluded if, for example: a) the study did not report data that permitted computation of conventional effect sizes (e.g., multivariate studies without univariate results); b) the study was designed to examine the incidence of sexual abuse in specific diagnostic groups (articles on particular diagnostic categories are more likely to report data regarding child sexual abuse); or c) the study failed to equate CSA and non-CSA groups on relevant subject selection variables (to avoid over- or underestimating effect size magnitudes). The authors point

out that this meta-analysis avoids increasing variance among effect sizes induced by using non-clinical non-victim groups. Therefore, it is possible that the effect sizes derived are, in fact, somewhat attenuated relative to those that would be obtained if control groups consisted only of individuals who had not experienced any kind of abuse, rather than individuals who had not experienced child sexual abuse.

Newmann et al. (1996) examined four domains of sequelae (affective, behavioral, identity/relational, and psychiatric) and an index of general symptomatology. Anger, anxiety and depression were used to index the affective domain; revictimization, self-mutilation, sexual problems, substance use, and suicidality were used to index the behavioral domain; interpersonal problems and self-concept were used to index the identity/relational domain; and dissociation, obsessions and compulsions, somatization, and traumatic stress responses were used to index the psychiatric domain. The index of general symptomatology was composed of general summary measures, such as the overall Global Severity Index score on the SCL-90-R. All four domains of sequelae and the index of general symptomatology were found to be significantly related to a history of child sexual abuse.

The association between a history of child sexual abuse and negative long-term sequelae can be considered statistically significant; small to medium mean effect sizes ($d = .32$ to $d = .67$) were found, with statistically significant results for measures of all domains (Newmann et al., 1996). Anxiety, anger, depression, revictimization, self-mutilation, sexual problems, substance abuse, suicidality, impairment of self-concept, interpersonal problems, obsessions and compulsions, dissociation, traumatic stress

responses, and somatization all yielded significant associations with sexual abuse. The highest effect sizes were found for revictimization ($d = .67$), traumatic stress responses ($d = .52$), and general symptomatology ($d = .46$). Significance in this meta-analytic aggregation of studies increases the likelihood that these effects are real, and not artifacts of methodology, sample variation, or measurement error (Briere, 1992b).

Although the results of the meta-analysis point to the importance of specific problems (such as revictimization and traumatic stress), the authors point out that some variables were examined in a relatively small number of studies. In addition, other potential sequelae, such as personality disorders and an inadequate sense of self or personal identity have not received the kind of research attention devoted to more classic difficulties such as depression and anxiety (Newmann et al., 1996). The authors emphasize that future research is needed to clarify and confirm their findings, and that future research should address more fully the wide range of potential abuse effects. As previously noted, it is important for studies of the sequelae of CSA to further investigate interpersonal relationship variables in addition to trauma-related symptoms.

Potential Moderators of the Impact of Child Sexual Abuse

Moderating variables are those that interact with the occurrence of abuse, and change the nature of the relationship between child sexual abuse and sequelae (Baron & Kenny, 1986). Newmann et al. (1996) submit that important moderating variables have not been examined with enough frequency to allow meta-analytic assessment. Such variables include the family environment, the relationship between victim and perpetrator, the victim's age at onset and termination of abuse, the disclosure of abuse

and others' response to it, the duration and frequency of abuse, the use of force, and the presence of vaginal or anal penetration. They suggest that this is a major weakness of the literature, and propose that studies should more routinely examine potential moderators of abuse-symptom relationships. All of these variables have the potential to influence the relationship between child sexual abuse and adult adjustment. One of the first studies to focus on the possibility of mediating variables found that a supportive relationship with family members appeared to moderate the effect of abuse, with victims who had supportive relationships with non-offending adults or siblings being less affected (Conte & Schuerman, 1987). Recently, Whiffen et al. (1999) found that intimate relationships moderated the relationship between the number of CSA incidents and later depression, with highly intimate relationships serving a protective function for women with a sexual abuse history.

Wachtel and Scott (1991) suggest that there is no contributing factor that all studies agree upon as being consistently associated with worse prognosis. Nonetheless, trends in the research suggest that longer lasting experiences, more severe abuse (e.g., involving penetration) more than one incident, abuse by fathers/stepfathers, and the presence of force all may lead to more greater long-term effects (Beitchman, et al., 1992). There is continuing debate in the literature with regard to the age of onset for abuse -- some suggest that younger children are more vulnerable, while others propose that younger children might be more naïve, and therefore impacted to a lesser extent; results are unclear (Kendall-Tackett, Williams, & Finkelhor, 1993). It is important to note, however, that many of these factors are naturally confounded (e.g., abuse by

father/stepfather, longer duration, more serious sexual activity), and this makes it difficult to fully analyze the independent effects of moderating variables such as these (Kendall-Tackett, Williams, & Finkelhor, 1993).

Abuse characteristics such as those outlined above clearly merit further research. In addition, preliminary evidence (Russell, Schurman, & Trocki, 1988) suggests that demographic characteristics might also moderate symptom relationships; these should also be routinely included in future studies. Researchers who have used homogeneous samples have acknowledged the need to undertake future studies with more diverse groups (e.g., Silverman, Reinherz, & Giaconia, 1996).

Potential Mediators of the Impact of Child Sexual Abuse

According to Baron and Kenny (1986), mediating variables are those which account for the relation between the predictor and the criterion. Mediators explain how external physical events take on internal psychological significance. Whereas moderators specify under what conditions certain effects will hold, mediators speak to how or why such effects occur.

If an established relationship between child sexual abuse and later symptoms exists, we must consider the nature of this relationship. It is possible that child sexual abuse leads directly to impaired adult psychological adjustment. However, an alternate model is that child sexual abuse leads indirectly to impaired adult psychological adjustment via its impact on other mediating variables. If it is demonstrated that the link between child sexual abuse and later difficulties is direct, this leaves few options for assisting survivors of abuse because nothing can be done to change the fact many

women have experienced child sexual abuse. However, if we can discover mediating variables that are amenable to intervention, we can be much more hopeful. Addressing a mediator might allow an individual to cope with a difficult early history. Clinicians potentially can assist a client with changing a mediating variable in therapy, and hence help clients foster their current psychological adjustment.

In comparison to moderating factors, until recently, much less research has addressed the psychological processes that may underlie or mediate the long-term effects of child sexual abuse. However, researchers are increasingly focusing on explaining the long-term sequelae of child sexual abuse via mediational factors (e.g., Coffey, et al., 1996; Conte & Schuerman, 1987; Gold et al., 1994; Roche, Runtz, & Hunter, 1999; Runtz & Schallow, 1997; Wind & Silvern, 1994). It is not yet clear what the most important mediational factors are.

Resarchers have recently begun to define variables as mediators and analyzed them in this way. Wind and Silvern (1994) found that parental warmth mediated the relationship of intrafamilial child abuse (physical or sexual) and symptoms of depression and low self-esteem, and Runtz and Schallow (1997) determined that relationships between child sexual and physical maltreatment and adult adjustment were mediated by perceived social support. A number of cognitive factors have also been suggested as mediators of the relationship between abuse and symptoms. Gold et al. (1994) found that a combination of parental support, attributional style, and coping strategies mediated between child sexual abuse and trauma-related symptoms. Similarly, relationships between child sexual and physical maltreatment and adult

adjustment seem to be mediated by positive and negative coping strategies (Runtz & Schallow, 1997), and the relationship between child sexual abuse and adult adjustment appears to be mediated by perceptions of stigma and self-blame (Coffey, et al., 1996; Wyatt, Newcomb, & Notgrass, 1991).

Interpersonal Relationship Capacity

One domain that seems important to consider in terms of its potential to mediate between childhood sexual abuse and current psychological adjustment is the capacity to form interpersonal relationships. Secure and supportive interpersonal relationships in childhood are important for promoting resilience in children (Rutter, 1990). Because child sexual abuse occurs in the context of human relationships, sexual abuse can cause a disruption in this capacity. For example, child sexual abuse can cause difficulties with the normal process of learning to trust, act autonomously, and form stable, secure relationships (Elliott, 1994). In turn, one's interpersonal relationship capacity is likely to impact psychological adjustment. I have chosen to examine the potential of interpersonal relationship capacity, including both adult attachment and object relations functioning, to mediate between child sexual abuse and adult adjustment in this study. Preliminary support for this mediational model has been obtained; we have found that adult attachment style mediates between the experience of child sexual abuse and adult psychological adjustment as measured by the Trauma Symptom Inventory (Roche, Runtz, & Hunter, 1999). However, in terms of the current goals, the previous study is limited by a number of factors: a) it used a student sample, so results may not generalize to a clinical and community sample, b) it restricted examination of

interpersonal relationship capacity to a consideration of attachment, c) it confined the examination of adult adjustment to scores on a single, if multidimensional, measure of symptoms (the Trauma Symptom Inventory, or TSI), and d) child sexual abuse data was collected via questionnaire only, and in addition, had a limited focus on specific abuse characteristics.

Although there are probably many ways to understand the capacity to form stable, secure interpersonal relationships, I have chosen to use a framework that includes both attachment theory and object relations theory because of the apparent usefulness of these theories for understanding the impact of child sexual abuse (see also Alexander, 1992). These theories provide useful theoretical perspectives for conceptualizing the capacity to form relationships and for understanding how such a capacity is related to the long-term sequelae of child sexual abuse.

Attachment theory and object relations theory are similar in many ways. Although they are not synonymous, the basic spirit of the theories is comparable, and emphasizes the importance of childhood relationships for the development of personality and as a template for later relationships. A central postulate of both theories is that mental representations of the self and others emanate from early relationships with caregivers and then act as templates for subsequent close relationships (Levy, Blatt, and Shaver, 1998). In fact, many psychoanalytic writers present attachment theory as a stream of object relations theory (e.g., Bell, 1995; Hamilton, 1988; Mitchell & Black, 1995; Teyber, 1992). Bowlby is often considered a member of the British Object Relations School (Mitchell & Black, 1995), although Bowlby departed

from psychoanalytic thinking to some extent with his focus on observable behavior.

However, Bowlby himself saw his concept of internal working models as very similar to the internal representations of earlier object relations theories. One object relations scholar summarizes, "Despite many differences among object relations theories, a consensual characterization of the object relations viewpoint is that personality develops from experiences in early childhood relationships that produce internal self-other representations. These serve as templates for contemporary experience" (Bell, 1995; p. 47). Similarly, attachment theorists suggest that the quality of childhood relationships with caregivers results in internal representations (or working models) of the self and others that provide the prototypes for later social relations. These two fundamental dimensions (model-of-self and model-of-other) are seen to underlie adult attachment styles (Griffin & Bartholomew, 1994).

In many ways, the divergence of the two theories can probably be attributed to their contrasting intellectual histories rather than to clear differences in content. Although Bowlby was a psychoanalyst, and first conceptualized attachment theory, his theory evolved into a theory of interest primarily to researchers in developmental psychology; attachment has a rich research orientation beginning with Ainsworth's work with children. In contrast, object relations theory has a long clinical history and followed from the more classical psychoanalytic ideas that preceded it. However, just as attachment research has recently been examined by clinicians (e.g., Sperling & Berman, 1994), object relations theory has recently been subjected to a more empirical approach to validation (e.g., Masling & Borenstein, 1994). Nonetheless, as Levy, Blatt,

and Shaver (1998) point out, although the theories have significant overlap, researchers who study adult attachment have not generally explored the ideas and measures created by object relations theorists.

One way that attachment and object relations difficulties might be manifested in later relationships is in terms of the development of the self. The development of the self unfolds in the context of attachment and the internalization of important others' perceptions and expectations; sustained and early trauma arising from abuse can produce long-standing dysfunctions of self (Briere, 1992). Exactly how the "self" is defined is not clearly determined, even by object relations and self psychology theorists who consider it central (Briere, 1992). In general, however, the "self" can be understood as "the agent of actions, the experiencer of feelings, the maker of intentions, [and] the architect of plans" (Stern, 1985; pp. 6); the development of this self occurs in the context of attachment. Similarly, Mitchell and Black (1995) outline Winnicott's object relations theory that to become a "me," with a consolidated self, experienced as real, and generating one's own personal meaning, requires a caregiving environment that adapts itself to the child's emerging subjectivity. Self dysfunctions, or those related to this internal base, are purported to lead to difficulties such as identity confusion, boundary issues, and the inability to soothe oneself (e.g., Briere, 1992a).

Attachment Theory. The attachment literature (Ainsworth, 1985; Bowlby, 1973, 1980, 1982, 1988) suggests that early childhood experiences of parental support, nurturance, consistency, and responsiveness produce a secure attachment. Warm and responsive parenting, according to this model, is expected to result in positive models

of both the self and others, and hence to result in secure and fulfilling adult relationships. Notably, object relations theory also suggests that the primary motive of human development is to establish and maintain emotional ties to parental caregivers (object relatedness), and if parents are dependably available and emotionally responsive to a child's needs, the child can gradually internalize the parent's availability. This becomes a source of her own self-esteem and secure identity as a capable, love-worthy person. Furthermore, she possesses the internal objects necessary to establish new relationships with others (Teyber, 1992). In contrast to the child who develops healthy attachments or object relations, the child who does not have reliable, consistent, secure relationships with primary caregivers is likely to fare less well. The child of a preoccupied, rejecting, depressed, or abusive parent is trapped in an unsolvable dilemma: they are not able to influence a reliable response from caregivers, nor can they escape or relinquish their need for attachment (Teyber, 1992; see also Grand & Alpert, 1993).

Insecure attachment has been observed to a much greater degree among children who have experienced physical abuse and neglect than in cases where abuse and neglect is absent (Carlson, Cicchetti, Barnett & Braunwald, 1989; Egeland & Sroufe, 1981). It is estimated that between 70% and 100% of maltreated children exhibit insecure attachment (versus a base rate of approximately 30% in general population samples) and that these children are more likely to demonstrate an impaired sense of self and an impaired ability to share information about their thoughts, feelings, and intentions (Cicchetti, 1987). In addition, insecure attachment has been noted in the clinical

observations of sexually abused children (Friedrich, 1990; 1996) and in research conducted with adult women who experienced child sexual abuse (Alexander, 1993; Roche, Runtz, & Hunter, 1999). Alexander (1993) found a much higher proportion of insecurely attached women in a group of women who were sexually abused within their families than the proportion of insecurely attached women found in Bartholomew and Horowitz's (1991) normative sample. Roche, Runtz, and Hunter (1999) found similar results in a university sample of women who had experienced intrafamilial or extrafamilial child sexual abuse. The average attachment profiles for non-abused and sexually abused women in that study are included in Figure 5. Similarly, impairment in the capacity for object relatedness has been noted in a study of adult women who experienced child sexual abuse (Elliott, 1994).

Although long-term sequelae are clearly related to the specific nature of the sexual abuse, the relationship context at the time of the abuse should also be important in determining the nature of the long-term sequelae seen in the adult survivor (Alexander, 1992). Childhood attachment history also exerts a direct influence on subsequent interpersonal relationships and on the development of an adult attachment style; this attachment context in the years intervening between the abuse and the assessment of psychological adjustment should also determine the nature of the sequelae seen in adults.

Patterns of adult attachment, or ways of being in relationships, can be organized in terms of Bowlby's (1982) conception of internal working models (Bartholomew, 1990, 1993). These working models include expectations, beliefs, emotional appraisals,

and rules for processing or excluding information. They can be partly conscious and partly unconscious and may or may not be completely consistent or coherent (Levy, Blatt, and Shaver, 1998).

As Bartholomew describes, models of the self can be dichotomized as either positive (positive self-concept, the self as worthy of love and attention) or negative (negative self-concept, the self as unworthy of love and attention). Similarly, models of the other can be viewed as positive (the other as trustworthy, caring and available) or negative (the other as rejecting, uncaring, and distant). Bartholomew's model is presented in Figure 1. The degree of positivity of one's model-of-self is associated with the degree of emotional dependence on others for self-validation; a positive self-model can be understood as an internalized sense of self-worth that is not dependent on others for validation. A positive other-model is reflective of expectations of others' availability and supportiveness; a positive other-model facilitates actively seeking out intimacy and support in close relationships, whereas negative other-models lead to avoidance of intimacy and support (Bartholomew, 1990). Each working model of the self in combination with each working model of the other is hypothesized to define a particular adult attachment style (Secure = positive model-of-self and model-of-other; Fearful = negative model-of-self and model-of-other; Dismissing = positive model-of-self, negative model-of-other; Preoccupied = negative model-of-self, positive model-of-other; see Figure 1). These models of self and other, and the corresponding four attachment styles, can be measured using the Relationship Questionnaire (RQ).

Object Relations Theory. As noted above, object relations theory suggests that the primary motive of human development is to establish and maintain emotional ties to parental caregivers (object relatedness), and if parents are dependably available and emotionally responsive to a child's needs, the child can gradually internalize the parent's availability. This becomes a source of her own self-esteem and secure identity as a capable, love-worthy person. Furthermore, she possesses the internal objects necessary to establish new relationships with others (Teyber, 1992).

Over the years, many theorists have proposed descriptions of the process and sequential stages of object relations development (e.g., Bellack, Hurvich, & Gediman, 1973; Fairburn, 1952; Kernberg, 1975, Mahler, Pine, & Anni, 1975). Blatt and his colleagues have suggested that the affective and cognitive components of the representations of self and others develop epigenetically (Blatt, 1974, cited in Levy, Blatt, and Lerner, 1998; Blatt & Lerner, 1983). That is, higher levels of representation evolve from and extend lower levels, and representations become increasingly accurate, articulated, and conceptually complex over time. As with studies of attachment, impairment in the capacity for object relatedness has been noted in a study of adult women who experienced child sexual abuse (Elliott, 1994).

Attempts to measure the quality of object relations have most often relied on the hypothesis that this feature of personality can be detected in the projective content of dreams, memories, open-ended descriptions of the self and others, or interpretations of ambiguous stimuli. Bellack, Hurvich, and Gediman (1973) created a multidimensional continuum for rating object relations through the use of interviews; although global

ratings are used in reports of their research, this scale offered no decision rule regarding how a global rating should be made. Inter-rater agreement for the dimensions was not offered, nor were intercorrelations of the dimensions or correlations between object relations dimensions or validating criteria presented (Bell, 1995).

Bell (1995; Bell, Billington, & Becker, 1986) used Bellack's scale as a conceptual foundation, then used factor analysis to create a pencil-and-paper measure, the Bell Object Relations and Reality Testing Inventory (BORRTI), with four object relations subscales (Alienation, Insecure Attachment, Egocentricity, and Social Incompetence).

Bell (1995; Bell, Billington, & Becker, 1986) proposes that the Alienation (ALN) subscale represents the broadest dimension of object relations; items measure a lack of basic trust in relationships, an inability to attain closeness, and hopelessness about maintaining a stable and satisfying level of intimacy. According to Bell, high scorers may feel suspicious, guarded, and isolated, and believe that they have no one with whom to share their innermost feelings or thoughts; they may believe that relationships will be ungratifying and that others will fail them. Empathy is limited, and the motivations and inner states of others are misjudged or ignored. High ALN scorers were very frequent among those with Borderline Personality Disorder, while adults with no known psychopathological symptoms rarely had high scores.

Bell (1995) suggests that the theme represented by items on the Insecure Attachment (IA) scale is the painfulness of interpersonal relations. High scorers are likely to be very sensitive to rejection and to have neurotic concerns about being liked

or accepted. Relationships are entered into as a result of a painful search for security rather than because of enjoyment of others as separate and unique; attempts by others to achieve a differentiated identity are viewed as threatening. Fear of object loss leads to oversensitivity to signs of abandonment and interferes with attaining mutuality and autonomy in relationships. Compared with ALN, high IA scores suggest a less disturbed quality of object relations. High scores were common among those with personality disorders. This scale is not necessarily equivalent to insecure attachment as measured by the RQ, given that it is defined descriptively rather than in terms of models of self and other.

Bell (1995) submits that items on the Egocentricity (EGC) subscale reveal three general attitudes toward relationships: 1) others' motivations are mistrusted; 2) others exist only in relation to oneself; and 3) others are to be manipulated for one's own self-centered aims. High scorers may have a self-protective and exploitive attitude and be intrusive, coercive, and demanding. They may believe that co-operation toward mutual goals is impossible because everyone is out for him or herself and anyone will try to humiliate and defeat anyone else if given the chance. He or she may alternately view him or herself as omnipotent or as powerless. Elevations were found most often in the hospitalized and Borderline Personality Disorder samples.

Bell (1995) proposes that one set of items on the Social Incompetence (SI) subscale (the highest loading items) indicates shyness, nervousness, and uncertainty about how to interact with members of the opposite sex. Remaining items describe inability to make friends, social insecurity, absence of close relationships, and

unsatisfactory sexual adjustment. High scorers may find relationships, especially with those of the opposite sex, bewildering and unpredictable. Elevations were common in all of the psychopathological groups. Elevations on SI and ALN together may indicate a type of alienation suggestive of turning away from others rather than of turning against others (cf. EGC).

Application of Attachment and Object Relations Theories. Object relations functioning, as measured by the BORRTI, includes components that are similar to the model-of-self and model-of-other proposed by attachment theory as measured by the RQ. However, the BORRTI dimensions are broader in nature and include additional dimensions such as lack of trust, lack of empathy, lack of differentiation from others, an exploitative attitude, and social discomfort. It is likely that all of the BORRTI dimensions are negatively related to Secure attachment on the RQ. However, although the label is the same, the dimension termed Insecure Attachment on the BORRTI does not appear to represent either a particular insecure attachment style on the RQ nor does it necessarily represent a summary of the three insecure attachment styles.

Unfortunately, these nebulous boundaries between the measures reflect the situation with the theories themselves whereby concepts defined via differing traditions overlap yet do not coincide exactly.

Notwithstanding the difficulties in measurement, the focus of attachment and object relations theories on the interpersonal relationship context surrounding abuse renders them very applicable to understanding the process of therapy with abuse survivors (see also Alexander, 1993). Both theories address the capacity for

interpersonal relatedness and the experience of self in relation to others, which are concerns central to most people (Bell, 1995). An important goal in therapy is often the reappraisal of an inadequate understanding the self in relation to important others. Notably, these models of the self and others are not simply determined by past relationships but also interact with current relationships (Kobak & Hazan, 1991). Both the therapy relationship and current attachment relationships offer child sexual abuse survivors an opportunity to modify implicit expectations about the self, others, and relationships.

Summary and Hypotheses

Clearly, in order to complement prevalence studies, it is important to consider the processes through which child sexual abuse might lead to long-term difficulties. If mediational variables that explain the relationship between child sexual abuse and psychological difficulties can be discovered, results from research in this area will be useful to women who are seeking assistance. That is, by focusing on making changes to these mediational factors, women can achieve higher levels of adaptive functioning.

As previously noted, this study is an attempt to identify possible mediators in the domain of interpersonal relationship capacity (i.e., adult attachment, and object relations functioning). In keeping with Baron and Kenny's (1986) discussion of mediation and of the pattern of statistical results that are consistent with mediational models, I expect that child sexual abuse will predict adult attachment and object relations functioning, as well as psychological adjustment which including both trauma-related symptoms and interpersonal problems. I expect that adult attachment and object

relations functioning will predict adult adjustment including both trauma-related symptoms and interpersonal problems. Additionally, adult attachment and object relations functioning should continue to predict trauma-related symptoms and interpersonal problems after partialing out the effects of child sexual abuse, whereas partialing out the effects of adult attachment and object relations functioning should reduce or even remove (in a statistical sense) the effects of child sexual abuse on trauma-related symptoms and interpersonal problems. A previous study (Roche, Runtz, & Hunter, 1999) indicated that the distinction between abuse occurring inside the family and abuse occurring outside the family may be important for predicting psychological adjustment, and that the two forms of child sexual abuse may have different implications for later attachments. For this reason, child sexual abuse survivors in this study were considered as a group as well as compared depending on whether they experienced intrafamilial child sexual abuse or extrafamilial child sexual abuse. Specifically, hypotheses are as follows:

1. Adult psychological adjustment, as measured by the Inventory of Interpersonal Problems (IIP) and the Trauma Symptom Inventory (TSI), supplemented by the Posttraumatic Diagnostic Scale (PDS), is expected to vary depending on child sexual abuse history, with women who have experienced child sexual abuse reporting more problems in adjustment. Women who have experienced intrafamilial child sexual abuse are expected to experience more difficulties in psychological adjustment than women who have experienced extrafamilial child sexual abuse.

2. Adult attachment style, as measured by the Relationship Questionnaire (RQ), and object relations functioning, as measured by the Bell Object Relations and Reality Testing Inventory (BORRTI), are expected to vary depending on child sexual abuse history, with women who have experienced child sexual abuse reporting less secure attachment and more difficulties in object relations functioning. This hypothesis is expected to hold most strongly for women who have experienced intrafamilial child sexual abuse.
3. For all women in the study, including those who were not sexually abused in childhood, adult attachment style, as measured by the Relationship Questionnaire (RQ), and object relations functioning, as measured by the Bell Object Relations and Reality Testing Inventory (BORRTI), are expected to predict differences in psychological adjustment, as measured by the Inventory of Interpersonal Problems (IIP) and the Trauma Symptom Inventory (TSI), supplemented by the Posttraumatic Diagnostic Scale (PDS).
4. Adult attachment style, as measured by the Relationship Questionnaire (RQ), and object relations functioning, as measured by the Bell Object Relations and Reality Testing Inventory (BORRTI), are expected to mediate the relationship between child sexual abuse and psychological adjustment, as measured by the Trauma Symptom Inventory (TSI) and Inventory of Interpersonal Problems (IIP). That is, it is expected that the relationship between child sexual abuse and psychological adjustment will be dramatically reduced or eliminated when adult attachment style and object relations functioning are accounted for.

METHOD

Participants

Participants were 118 women who ranged in age from 19 to 76. Of the participants who agreed to provide information about where they saw the advertisement for the study ($n=115$), approximately 25% ($n=29$) saw the materials at their family physician's office or a general medical clinic, 24% ($n=27$) saw them at a mental health professional's office or at a mental health agency, 7% ($n=8$) saw them at a university or college, 8% ($n=9$) saw them at an other community agency, 17% ($n=20$) had the materials posted at their own work setting, and 17% ($n=19$) heard about the study from a friend or via word of mouth. There were no differences between sexually abused women and non-abused women based on the nature of the recruitment location ($\chi^2(4)=5.70, p=.22$).

The average participant was about 39 years old ($M=38.79, SD=13.19$). About 31% of the sample ($n=36$) was in the 19 to 29 year-old age group, about 21% ($n=25$) were 30 to 39, about 26% ($n=31$) were 40 to 49, and 22% ($n=26$) were 50 or older. Of the 117 women who answered questions about race and ethnicity, 94% ($n=110$) were Caucasian, about 2% ($n=2$) were First Nations or Aboriginal people, and the remaining participants were Black ($n=1$), Asian ($n=1$), or of mixed racial heritage ($n=3$). For participants reporting income ($n=113$), the average household income was in the \$30,000 – 39,000 Cdn range. About 28% of the sample ($n=32$) had a household income of less than \$20,000 per year, while about 45% ($n=51$) had a household

income of \$20,000 to \$49,000, and about 27% (n=30) had a household income of \$50,000 or more.

Approximately 70% of the sample (n=82) worked outside the home full-time, while about 16% (n=19) were full-time students and about 9% (n=10) were unemployed. The remainder were self-employed (n=1), homemakers (n=4), or on disability pension (n=2). For the participants working full-time jobs outside the home, the average Hollingshead (1957) occupation score was about 6, which represents occupations such as technicians, semiprofessionals, and small business owners. About 4% of participants working full-time outside the home (n=5) worked in unskilled or semiskilled occupations; about 21% (n=25) worked doing skilled manual labour, owned small businesses, worked as craftspeople, or in clerical or sales occupations; about 34% (n=40) worked as technicians, managers, semiprofessionals, minor professionals, artists, or owned medium sized businesses; and about 10% (n=12) worked as administrative officers, professionals, executives, government officers or owned large businesses. The average participant completed 1 to 3 years of college or university, or attained a college diploma. About 7% (n=8) of participants completed less than a grade 12 education; about 14% (n=16) completed grade 12; about 43% (n=51) completed some college or university; about 21% completed 4 to 5 years of university or an undergraduate degree; and about 15% completed 6 years or greater of university or a graduate degree.

A variety of marital/relationship statuses were represented; about 37% of the sample (n=44) were single and had never been married, about 33% (n=39) were

married or living with a partner, and about 30% (n=35) were separated, divorced, or widowed. About 87% of women in the sample (n=103) identified themselves as heterosexual, about 7% (n=8) as lesbian, and about 5% (n=6) as bisexual; 1 participant indicated that she was undecided about her sexual orientation. About 59% of the sample (n= 69) reported being in a serious relationship at the time of participation, while about 42% (n=49) were not in a serious relationship. About 46% (n=54) of the 117 women in the sample for whom information about children was available did not have children, while about 54% (n=63) had 1 or more children.

Of all demographic variables, only income was significantly related to CSA. Women who reported a history of CSA were more likely to have a household income in the lowest range (\$19,000 Cdn or less) and were less likely to have a household income in the middle range (20,000 – 49,999) than were women who did not report a history of CSA, although both groups were about equally likely to have a household income in the highest range of \$50,000 or more ($\chi^2(2)=12.40, p < .001$). There was also a trend for a higher proportion of women who had not experienced CSA to be represented in the youngest age group (19 to 29) than women who had experienced CSA, but the overall difference in proportions falling in the four age groups was not statistically significant ($\chi^2(3)=7.19, p = .07$).

Approximately 95% of participants indicated that they had at some point participated in counseling or therapy. Of those who had been in therapy or counseling, about 71% (n=79) had received therapy or counseling in the past but were not currently participating, while about 29% (n=33) were currently participating in therapy

or counseling. The average participant indicated that she had participated in therapy or counseling on about 4 separate occasions ($M=4.28$, $SD=9.63$). Participation did not differ depending on CSA history, either in terms of the recency of participation in therapy or counseling ($\chi^2(2)=1.02$, $p=.60$) or in terms of the number of occasions the participant had attended therapy or counseling ($t(116)=.10$, $p=.92$). Participation in therapy also did not significantly differ depending on whether a participant had a history of intrafamilial or extrafamilial CSA, either in terms of the time of participation ($\chi^2(2)=1.02$, $p=.60$) or in terms of the number of occasions on which the participant had attended therapy ($t(56)=-1.12$, $p=.27$).

About 55% of the sample ($n=65$) indicated that they had experienced forced or unwanted sexual contact as an adult, while about 42% ($n=49$) indicated that they had not experienced such contact, and about 3% ($n=4$) indicated that they were not sure if they had experienced such contact. These proportions did not differ depending on CSA history ($\chi^2(2)=2.72$, $p=.28$), nor did they differ depending on whether the participant had experienced intrafamilial or extrafamilial CSA ($\chi^2(2)=.92$, $p=.63$).

Abuse Characteristics

Intrafamilial vs. Extrafamilial CSA

About 49% of participants ($n=58$) reported a history of CSA, while about 51% of participants ($n=60$) did not report a history of CSA (No Abuse group; NA). Twenty-eight percent ($n=33$) reported a history of intrafamilial CSA ($n=20$) or a history of both intrafamilial and extrafamilial CSA ($n=13$) (Intrafamilial Abuse group; IA), while 22% ($n=26$) reported a history of only extrafamilial CSA (Extrafamilial Abuse group,

EA). See Figure 2 for a graphical representation of the proportions of the sample in each group.

Age of Onset

Across incidents and participants, the mean age of onset for an incident of CSA was about 10 years old ($M=9.72$, $SD=3.65$), with participants in the IA group reporting a lower mean age of onset ($M=8.73$, $SD=3.10$) across CSA experiences than the EA group ($M=11.03$, $SD=3.97$) ($t(56)=-2.48$, $p=.02$). The mean age of onset of participants' first CSA experience was about 8 years old ($M=8.09$, $SD=3.93$). Participants in the IA group were significantly younger ($M=6.97$, $SD=3.07$) than participants in the EA group ($M=9.56$, $SD=4.50$) at the onset of their first CSA experience ($t(56)=-2.61$, $p=.01$). The mean age of onset of participants' most recent CSA experience was about 11 years old ($M=11.31$, $SD=4.48$), and this did not significantly differ for the IA and EA groups ($t(56)=-1.57$, $p=.12$).

Age of Perpetrator and Age Difference

Across all CSA incidents, the average perpetrator was about 28 years old ($M=28.33$, $SD=12.51$). The mean age of perpetrators offending against women in the IA group was greater ($M=31.56$, $SD=13.61$) than for women in the EA group ($M=24.29$, $SD=9.81$) ($t(52)=2.20$, $p=.03$). Across all CSA incidents, the average age difference between the participant and the perpetrator was about 18 years ($M=18.45$, $SD=13.29$). Although the mean age difference was uniformly large, it was significantly greater for the IA group ($M=22.72$, $SD=13.76$) than for the EA group ($M=13.11$, $SD=10.73$) ($t(52)=2.80$, $p=.007$). Similarly, when considering the largest

age difference among each participant's reported CSA incidents, the mean largest age difference was significantly larger for the IA group ($M=29.07$, $SD=18.71$) than for the EA group ($M=19.13$, $SD=16.79$) ($t(52)=2.19$, $p=.03$).

Nature of the Behaviors

Across all reported CSA events, 67% ($n=39$) of participants reported severe CSA, indicating that the most intrusive behaviors they experienced were vaginal or anal intercourse, attempted intercourse, oral-genital contact, or anal/vaginal insertion of objects. About 26% ($n=15$) reported moderately severe behaviors such as sexual touching, fondling of breasts or genitals, or being made to fondle the perpetrator's genitals. About 7% ($n=4$) reported somewhat less severe behaviors such as kissing and hugging in a sexual manner, being made to show her genitals to the perpetrator, or being shown the perpetrator's genitals. Although the trend indicated that women in the IA group were more likely to experience severe abuse, differences in the overall proportions of less severe, moderately severe, and severe abuse for the IA and EA groups did not reach significance ($\chi^2(2)=4.60$, $p=.09$). Participants reported experiencing an average of about 1 incident that included force ($M=.86$, $SD=.80$), and the number of incidents including force did not differ between the IA and EA groups ($t(56)=-.80$, $p=.43$). About 17% of participants ($n=10$) reported experiencing incidents involving multiple perpetrators, and this proportion did not significantly differ for the IA and EA groups ($\chi^2(1)=.86$, $p=.36$).

Number and Length of Incidents

Within the abuse groups, participants reported an average of two incidents ($M=1.95$, $SD=1.19$) that met the criteria for CSA; this did not significantly differ for the IA and EA groups ($t(56)=.16$, $p=.88$). The median length of the longest CSA experience was between one month and one year. About 42% of participants ($n=24$) reported that the longest CSA experience occurred one time; about 18% ($n=10$) reported that the longest CSA experience lasted less than one year, but happened more than one time; about 18% ($n=10$) reported that the longest CSA experience lasted from one to five years; and about 19% ($n=11$) reported that the longest CSA incident they experienced lasted more than five years. Although more women in the IA group (28.1%) than in the EA (8.7%) reported experiences that lasted more than five years, the overall difference in proportions between the two groups was not significant ($\chi^2(3)=5.64$, $p=.18$).

Disclosure of CSA

About 69% ($n=40$) of the participants reporting CSA experiences indicated that they had first disclosed at least one experience of CSA when they were younger than 18, while about 26% ($n=15$) indicated that they did not disclose any CSA experiences until they were an adult, and about 5% ($n=3$) indicated that they had never disclosed any CSA experiences prior to participating in the present study. Of those participants who had previously disclosed, participants in the IA group were more likely than the EA group to have disclosed only as an adult, with about 38% of those in the IA group

withholding disclosure until adulthood, compared to 13% of the EA group ($\chi^2(1)=4.04$, $p=.05$).

Exposure to Other Traumatic Events

A traumatic event is defined in the DSM-IV as one that involves “actual or threatened death or serious injury, or a threat to the physical integrity of self or others” (APA, 1994, p. 427) and that results in “intense fear, helplessness, or horror.” This definition relies on the person’s perception of danger and on her emotional reaction to the event. Data from the PDS indicated that 65% of the sample for whom data was available ($n=75$) met DSM-IV criteria for exposure to a traumatic event of some kind. Of women in the No Abuse group, 61% ($n=36$) met these criteria for traumatic exposure. In the two abuse groups, about 67% ($n=22$) of the Intrafamilial Abuse group met criteria and about 71% ($n=17$) of the Extrafamilial Abuse group met criteria. Experiences reported included such events as sexual assaults or abuse as a child or adult, physical assaults, accidents, disasters, and life-threatening illnesses. There was no significant difference between groups with regard to the proportion meeting criteria for exposure to a traumatic event, $\chi^2(2)=.801$, $p=.67$.

In order to receive a diagnosis of PTSD, the DSM-IV requires not only exposure to a traumatic event, but that re-experiencing the event, avoidance of the event, and arousal symptoms be present for more than one month and that such symptoms interfere in some important way with the individual’s functioning. According to the DSM-IV community-based studies reveal a lifetime prevalence rate ranging from 1% to 14%, depending on the methods of diagnosis and populations studied. Studies of

at risk individuals (including combat veterans, victims of violence, etc.) have produced rates ranging from 3% to 58% (Foa, 1995).

About 32% (n=36) of the sample for whom complete data were available met criteria for the diagnosis of PTSD at the time of data collection. Of women in the No Abuse group, approximately 19% (n=11) met criteria for PTSD. In the two abuse groups, 50% (n=16) of the Intrafamilial Abuse group met criteria for PTSD and about 38% (n=9) of the Extrafamilial Abuse group met criteria for PTSD. The three groups were significantly different with regard to the proportion meeting criteria for PTSD, $\chi^2(2)=9.35$, $p=.00$, with a larger proportion of women in the abuse groups meeting criteria for PTSD than women in the No Abuse group.

Procedure

The initial sample of participants included 122 women from the Greater Victoria area. They were the first 122 of a total of 260 women in the larger study of which this study was a part. The Women's Health and Relationships Study (WHRS) is the name of the umbrella study that includes two interlinked projects for which data were gathered simultaneously. The Women's Health Study (WHS; Runtz, 1994) is the larger 3-year SSHRC-funded study, which focused on the relationships among a variety of women's victimization experiences (e.g., child sexual, physical, and emotional abuse; adult sexual and physical assault) in relation to physical health, psychological adjustment, trauma symptoms and coping. The research that is the focus of the present dissertation was conducted in conjunction with the WHS (sharing some variables with that study as well as contributing additional variables in the areas of attachment, object relations, and

interpersonal relationships) and was supported from 1994 to 1998 by funding from a Doctoral Studentship awarded to the author by the British Columbia Health Research Foundation (Roche, 1994).

Recruitment for the WHRS was conducted through the offices of Victoria area physicians, psychologists, social workers, and counselors, to whom a letter was sent requesting that they post the enclosed advertisements and brochures about the study in their offices. Brochures recruited women 18 years of age or older of any marital status or sexual orientation, including: women who had experienced child sexual, physical, or emotional abuse; women who had physical or emotional concerns; women who had experienced other challenging life experiences; and women who had none of the life experiences listed above. Brochures further informed potential participants that some of the questions would be sensitive and personal in nature, that no counseling would be provided by the interviewer, and that they would be paid \$20 as well as entered in a draw for three prizes totaling \$500, if they so chose. See Appendix A for the letter to professionals, the recruiting poster, and the recruiting brochure.

Potential participants completed a telephone screening interview prior to participating in the study. Because of the potential risks of participation for an unstable individual, exclusion criteria for the study included experiencing any of the following in the preceding 6 weeks: inpatient psychiatric hospitalization or hallucinations/delusions; suicide attempts or other self-harming behavior; and residential or detoxification treatment for substance abuse. Of a total of 330 women who completed the WHRS telephone screening, 4 participants were screened out on the basis of these criteria. One

woman was screened out on the basis of these screening criteria during the data collection for the present study because during the preceding 6 weeks she had been a psychiatric inpatient, had experienced hallucinations/delusions, and had engaged in self-harming behavior. Following this assessment of suitability, all material in the brochure was reviewed with the participant. This again included the sensitive and personal nature of the questions, as well as the right to refuse to answer questions or withdraw and the fact that information would be kept confidential. Following this screening process, 8 potential participants chose not to participate in the study, 3 of these during data collection for the present study. See Appendix B for the Telephone Screening Form and Script for Screening out Potential Participants.

Of the 318 women who met screening criteria and signed up to participate in the larger WHRS, 18.2% (n=58) cancelled their appointments or did not attend their appointments. A response rate of 82% of those who telephoned in response to the study's advertisement is an estimate of the response rate for this sample, but may be an underestimate due to the fact that missed appointments were often rescheduled for later in the larger study. Of the 122 women in the current sample, 1 participant did not return to complete the interview portion of the study, and 1 participant arrived at the session under the influence of substances and did not complete either the questionnaire or interview portion of the study; they were removed from the sample at the time of data entry. Finally, 2 women were removed from the present sample at the time of data analysis: 1 because the sexual abuse data she provided was very unclear and therefore unreliable, and 1 because she attained a very extreme score on a validity scale on the

Bell Object Relations Inventory (described further below). The final sample for this study included 118 of the original 122 women.

Participants met with an interviewer for approximately 2 to 3 hours in total. They reviewed and signed forms documenting their understanding of the study and their informed consent to participate. See Appendix C for the Participant Information Sheet and Informed Consent Form. Administration of questionnaire measures, which took from 60 to 120 minutes, was then completed. Questionnaire measures included in the present investigation were the Relationship Questionnaire (RQ), the Bell Object Relations and Reality Testing Inventory (BORRTI), the Trauma Symptom Inventory (TSI), the Posttraumatic Stress Diagnostic Scale (PDS), and the Inventory of Interpersonal Problems (IIP). Data entry of variables from the questionnaires was double-checked for every 10th participant. Those entering data initially were not aware of which cases would later be checked.

Subsequent to the administration of the questionnaire measures, participants completed a semi-structured interview. Permission was sought to audiotape the interview in order to confirm interviewer codes where necessary. No participants in the present study declined to give consent. On average, the entire WHRS interview required 90 minutes to complete. Approximately one quarter of the data from the full interview was used in this study. Included in this study were the Early Sexual Experiences section and some questions from the Demographics section. Interviewers were the researcher and several other doctoral candidates in clinical psychology who were trained and supervised by the researcher and by Dr. Runtz. Every effort was

made to ensure that the study did not create unreasonable stress for participants. In the event that a participant became overly distressed during the session, the planned procedure was that the interview (or self-report measures) would be discontinued; however, there were no instances where this proved necessary. See Appendix D for the portions of the WHRS interview used in this study. Sexual abuse variables were independently coded a second time by a different coder for every participant and discrepancies between coders were settled through consultation with Dr. Runtz. Demographic variables were independently re-coded and data entry was checked for every 5th participant. As for the questionnaire data, those originally coding and entering data were not aware of which cases would later be checked.

Debriefing with the participant followed the interview. Debriefing included information about the purpose of the study, provided the opportunity for the participant to ask questions of the interviewer, allowed the interviewer to assess the level of distress or discomfort experienced by the participant, and allowed for provision of additional referrals where indicated or requested. All participants were provided with a written debriefing sheet and a list of available community resources. See Appendix E for the Debriefing Sheet and List of Resources. At this point participants were paid for their participation in the study, were offered the opportunity to enter a contest for cash prizes to be drawn at the end of the WHRS data collection, were offered the opportunity to sign up to receive a summary of the results at the end of the study, and were asked not to talk about the purpose of the study should they know someone who might participate but had not yet done so.

Measures

Interview

Demographics

This portion of the interview was created for the WHRS and was based in part on recommendations in the manual, “Survey Research: Report of the Consultative Group on Survey research” by the Social Sciences and Humanities Research Council of Canada (1976). It includes typical questions about demographic information (e.g., age, marital status, and income). See Appendix D for the portions of the WHRS Interview used in this study.

Early Sexual Experiences

This semi-structured portion of the interview was created for the WHRS, based largely on the “Early Sexual Experiences” section of Herman and van der Kolk’s (1990) Traumatic Antecedents Questionnaire (TAQ), and also on questions from Briere’s (1992a) Child Maltreatment Interview. It includes detailed questions about the participant’s sexual experiences as a child, as well as such variables as who the experiences were with, how often the experience occurred, whether force was involved, whether the experiences were a secret, and whether the participant was upset at the time. Information on up to five separate CSA events was collected. This interview is designed to answer the question of whether or not the participant was sexually abused as a child, and to provide comprehensive information about the nature of the abuse in cases where CSA occurred. It provides more detailed information than a questionnaire measure of CSA, and it is more flexible with regard to administration; thus, it is more

responsive to individual differences with regard to the nature of each abuse experience, as well as the number of such experiences. See Appendix D for the portions of the WHRS Interview used in this study.

For this study, CSA is defined as: 1) sexual contact (fondling, oral-genital contact, or intercourse) or other distinctly sexual behavior (e.g., taking nude pictures, being made to show one's genitals) between a child, age 16 or younger, and an adult who was 5 or more years older, or 2) sexual contact or distinctly sexual behavior between a child, age 16 or younger, and a perpetrator who was not 5 or more years older than the victim, but who used force or threats to ensure the victim's compliance. Consensual sexual relations between peers and very mild forms of unwanted sexual behavior (e.g., exposure from a distance by a stranger) were not included as CSA in this study.

Self-Report Measures

Interpersonal Relationship Capacity

The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991). The RQ is an adaptation of a self-report measure of attachment developed by Hazan and Shaver (1987). The RQ consists of four short paragraphs describing four attachment styles (Secure, Preoccupied, Dismissing, and Fearful). Each participant is asked to choose a style that is most like them, and is asked to make ratings on a 7-point scale (1 = "not at all like me" to 7 = "very much like me") regarding the degree to which she resembles each of the four styles. See Appendix F for the RQ.

Bartholomew and Horowitz's (1991) examination of the RQ indicated that the observed patterns of responses in the normative sample (i.e., university students) was consistent with the proposed four-category model of attachment and that the RQ's dimensional structure is consistent with the proposed two-dimensional structure (i.e., negative and positive models of self and others) described above. Roche, Runtz, and Hunter's (1999) results also provided support for Bartholomew's (1990) conceptualization of the two dimensional nature of attachment and the implication of Bowlby's theory that the intersection of the underlying models of self and other is the basis for the four basic attachment styles. See Figure 1 for Bartholomew's four-category model.

The Bell Object Relations and Reality Testing Inventory (BORRTI; Bell, 1995).

The BORRTI is a self-report measure of 45 true-false items designed to assess various dimensions of object relations (Form O) and 45 true-false items designed to assess various dimensions of reality testing. The items can be administered as a 90-item measure, or the 45 object relations items can be administered separately. Both sets of items were administered, but only Form O was used in this study. See Appendix F for sample items from the BORRTI, Form O.¹

Bell, Billington, and Becker (1986) suggest that the object relations subscales appear to represent common features of personality and to sample a domain that is distinct from symptomatology, but related to variations in the nature of psychological symptoms. Development of the BORRTI was based on rational and empirical methods

¹ Reproduction here of all of the BORRTI items or the scale compositions is prohibited by the publisher.

of test construction. It was standardized on both clinical and non-clinical samples (psychiatric outpatients and inpatients, high functioning adults, and undergraduate students). High **T** scores suggest deficits in functioning. Participants are instructed to read each statement carefully and decide whether, most recently, it has been generally true or generally false for them.²

The BORRTI consists of four factorially derived object relations subscales: Alienation (ALN), Insecure Attachment (IA), Egocentricity (EGC), and Social Incompetence (SI) and a validity scale, Inconsistent Responding (INC) (Bell, 1995; Bell, Billington, & Becker, 1986). The INC scale was developed using eight pairs of correlated items ($r = .43$ to $r = .52$) to assist the clinician in detecting inconsistent response patterns to the items. Bell (1995) suggests that a score of 7 (on the full BORRTI) indicates about a 70% likelihood that responses were given in a haphazard manner and should be interpreted with caution, whereas a score of 10 indicates about a 98% likelihood of haphazard responding. Eight participants scored 7 or above on the INC scale, indicating that caution was warranted. However, because these scores fell in the questionable, rather than extreme, range and because participants had satisfactory scores on the TSI validity scales, these participants were not excluded. One participant

² Bell, Billington, & Becker (1986) explain that the wording *most recently* reflects the view that, when under stress, a person's level of ego functioning may decrease somewhat from his/her characteristic level and that such regressions are an important feature of psychiatric disorders. The wording of the instructions is considered to encourage detection of such variation. If object relations ego functioning tends to be very stable, then requesting a *more recent* mindset will not alter the result. If OR functioning changes with psychosis, then this wording may detect it more easily than would a request for answering the statement according to what is generally true for that person.

scored extremely high on the INC scale (INC=10), and was excluded from the sample on this basis given the high likelihood that her responses were unreliable.

Internal consistency is reportedly high for the object relations subscales. Coefficient alphas reportedly range from .78 for EGC to .90 for ALN; Spearman-Brown split half reliabilities also reportedly range from .78 for EGC to .90 for ALN (Bell, 1995; Bell, Billington, & Becker, 1986). The four subscales share many items and are moderately intercorrelated. Intercorrelations between the subscales are in part a result of the decision to use an oblique factor rotation solution in factor analyses of the measure because the authors assert that various dimensions of object relations are likely to be related. However, for respondents with at least one relatively high subscale score, scores on a second subscale explain at most about $\frac{1}{4}$ of the variance on the elevated subscale, and each of the four subscales appears to bear a unique relationship to variations in psychopathology. A replication study showed considerable factorial invariance (Bell, Billington, & Becker, 1986). Similarity coefficients ranged from .84 for EGC to .97 for ALN. The BORRTI can discriminate previously identified clinical populations (such as individuals with Schizophrenia, Borderline Personality Disorder, and other personality disorders). Similarly, Bell, Billington, and Becker (1986) demonstrated that, as expected, the BORRTI correlated positively with various symptom measures such as the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962) and the Global Assessment Scale (GAS; Endicott, Spitzer, Fliess, & Cohen, 1976). It showed non-significant correlations with the Marlowe-Crowne Social Desirability Scale (MCSD; Crowne & Marlowe, 1960).

Psychological Adjustment

The Trauma Symptom Inventory (TSI; Briere, 1995). The TSI is a 100 item self-report questionnaire that measures trauma-related symptoms in adults including, but not limited to, the effects of sexual or physical assault, combat, major accidents, natural disaster, and child abuse or early traumatic events. It was developed in response to the paucity of standardized, clinically useful measures of posttraumatic symptomatology, and it represents a major revision and expansion of the Trauma Symptom Checklist-33 (TSC-33) and the subsequent TSC-40 (Briere & Runtz, 1989). The TSI was designed to tap various forms of symptomatology, each of which are seen by the author as relevant to the psychological assessment of traumatized individuals. Both the specific symptoms of post-traumatic stress disorder, such as intrusive experiences and avoidance of events or stimuli that remind one of the trauma, and other more chronic posttraumatic sequelae, such as dissociation, anger, and disturbance in self functions are measured by the TSI.

The TSI consists of ten clinical scales and three validity scales, with items rated on a 4-point scale (0 = "never" to 3 = "often"). The clinical scales are as follows: Anxious Arousal (AA), Depression (D), Anger/Irritability (AI), Intrusive Experiences (IE), Defensive Avoidance (DA), Dissociation (DIS), Sexual Concerns (SC), Dysfunctional Sexual Behavior (DSB), Impaired Self-Reference (ISR), and Tension Reduction Behavior (TRB). See Appendix F for sample TSI items.³ According to the TSI manual, AA measures symptoms of anxiety, especially those associated with

³ Reproduction here of all of the TSI items or the scale compositions is prohibited by the publisher.

posttraumatic hyperarousal; D measures depressive mood states and depressive cognitive distortions; AI measures self-reported anger or irritable affect as well as angry cognitions and behavior; IE measures intrusive symptoms associated with posttraumatic stress; DA measures cognitive and behavioral posttraumatic avoidance; DIS measures dissociative symptomatology such as depersonalization, derealization, psychic numbing, and out of body experiences; SC measures self-reported sexual distress; DSB measures sexual behavior that is dysfunctional either because of its indiscriminate quality, its potential for self-harm, or its inappropriate use to accomplish nonsexual goals; ISR measures problems in the “self” domain, such as identity confusion, self-other disturbance, and a lack of self-support; and TRB measures the tendency to turn to external methods of reducing internal tension or distress.

Three validity scales are also included in order to identify invalid profiles. The validity scales are as follows: Atypical Response (ATR), Response Level (RL), and Inconsistent Response (INC). ATR reveals responses that are statistically unusual or represent seemingly psychotic phenomena. Very high scores may represent generalized overendorsement, overendorsement of unusual items or accurate reporting of a psychotic or disorganized state (Briere, 1995). RL was developed to determine if the individual is indiscriminately marking zeros on the measure, rather than refusing to complete it. It reflects the extent to which the individual denies behaviors, thoughts, or feelings that most other respondents would report (Briere, 1995). INC scores indicate the extent to which the individual responds to similar TSI items in an especially inconsistent fashion. Inconsistency may be due to random responding, poor attention or

concentration, dissociative phenomena, or reading difficulties (Briere, 1995). Briere cautions, however, that protocols with high INC scores should be examined for the possibility that they reflect explainable responses, rather than inconsistency. Cutoff scores, beyond which a protocol should be considered invalid, are provided for each of the validity scales. No participants received scores on the any of the TSI validity scales that suggested an invalid profile.

Good psychometric properties for the TSI have been demonstrated in both non-clinical and clinical samples. Similarly, reliability coefficients for the normative sample of university students are reported to range from .69 for TRB to .90 for AI with a mean α of .84 (Briere, 1995). A study of 775 Canadian university students found coefficients of .64 for TRB to .90 for D, with a mean α of .82 (Runtz & Roche, 1997). Reliability coefficients for the TSI scales in a smaller sample of 307 female university students (Roche, Runtz, & Hunter, 1999) were found to range from .64 for TRB to .89 for AI, with a mean α of .82. Reliability coefficients for a clinical sample (including both outpatients and inpatients) are reported to range from .74 for TRB to .90 for D and IE (Briere, 1995). Reliability coefficients in the present study range from .75 for TRB to .91 for D, with a mean α of .87.

In discriminant function analyses conducted by the author of the scale to demonstrate construct validity, all four trauma types examined (adult interpersonal violence, adult disaster, childhood interpersonal violence, and childhood disaster) were significantly associated with elevated TSI scores (Briere, 1995). All TSI T scores were associated, to some extent, with each trauma type, except that DSB was not a

significant predictor of adult disaster. Similarly, MANOVA analyses conducted by Runtz and Roche (1999) indicated that a history of child abuse (either CSA or child physical abuse, CPA) was significantly related to all ten TSI scales; a history of CSA was related to all scales except AA and AI, and a history of CPA was related to all scales except DSB. In a recent study of CSA, adult attachment, and psychological functioning, a profile analysis also indicated different responses to the TSI depending on whether the participant experienced no CSA, extrafamilial CSA, or intrafamilial CSA (Roche, Runtz, & Hunter, 1999).

Briere (1995) reports that the TSI has reasonable convergent validity for those scales that overlap in content with the Brief Symptom Inventory (BSI). In addition, for females, the TSI can identify psychological distress associated with interpersonal victimization above and beyond that tapped by two other trauma scales (Intrusive Events Scale [ISE], and the Symptom Checklist [SCL]) and one general symptom measure (BSI). In addition, Runtz and Roche (1999) found that the TSI was related to measures of physical health symptoms and life stress.

The Inventory of Interpersonal Problems (IIP; Horowitz, Rosenberg, Baer, Ureño, & Villaseñor, 1988). The IIP is a self-report measure that was created to tap interpersonal problems that are often sources of distress mentioned by clients in their initial psychotherapy interviews. It contains 127 statements of problems rated on a 5-point scale according to how distressed the respondent has been by the problem (from 0 = “not at all” to 4 = “extremely”). Statements are in two forms; some items are things that the respondent finds hard to do with other people, and some are things the

respondent does too much with other people. The IIP consists of the following 6 subscales, distinguished on the basis of whether they contain primarily “it is hard for me to...” items, and are therefore H (“hard to”) subscales, or they contain primarily “I am too...” items, and are therefore T (“too much”) subscales: Assertive (H), Sociable (H), Intimate (H), Submissive (H), Responsible (T), and Controlling (T). See Appendix F for sample IIP items.⁴

Reliability of the IIP is good, with reliability coefficients ranging from .82 for Controlling to .93 for Assertive and Sociable in the normative sample of 103 outpatients (14 men and 89 women) between the ages of 20 and 64. Reliability coefficients in the present study were between .78 for Controlling and .94 for Assertive, with a mean $\alpha = .86$.

The IIP showed little overlap with a general symptom measure (Symptom Checklist 90 Revised, SCL-90-R); of 54 correlation coefficients, only 3 were significant at the .01 level on both of 2 occasions of measurement. In contrast, at least one corresponding scale of the IIP correlated positively with other explicitly interpersonal inventories (UCLA Loneliness Scale, Rathus Assertiveness Schedule, and Interpersonal Dependency Inventory). Thus, the IIP did correlate appropriately with the corresponding interpersonal traits of the aforementioned scales, while still showing considerable discriminant validity. In addition, when the IIP was administered at time 1 (pretreatment), time 2 (at the end of a 10 week waiting period), time 3 (after 10 sessions of psychotherapy) and at time 4 (after 20 sessions of psychotherapy) the

⁴ Reproduction here of all of the IIP items or the scale compositions is prohibited by the publisher.

authors demonstrated that the IIP was sensitive to change in interpersonal distress over a 20-session course of psychotherapy.

The Posttraumatic Stress Diagnostic Scale (PDS; Foa, 1995). The PDS is a 49-item self report measure that is designed to quickly and efficiently aid in the diagnosis of posttraumatic stress disorder (PTSD) and to quantify the severity of PTSD symptoms. In particular, it is recommended by the author for use with individuals who might be at risk for PTSD. The PDS is an adaptation of the PTSD Symptom Scale – Self-Report (PSS-SR) for more general clinical use. Foa, Riggs, Dancu, and Rothbaum (1993) developed the earlier PSS-SR to assess PTSD in rape victims. The PDS consists of four parts; a) a survey of exposure to 11 traumatic events, and a 12th fill-in-the-blank event; b) characteristics of what the respondent believes was the most traumatic event (including time of occurrence, presence of injury and life endangerment, and whether the respondent felt helpless or terrified); c) 17 symptom items corresponding to DSM-IV diagnostic criteria for PTSD (rated on a scale of 0 = “not at all or only one time” to 3 = “five or more times per week/almost always”) and two items tapping duration of symptoms and time from the event to the onset of symptoms; and d) whether these symptoms have interfered with functioning at work, home, or school, with the respondent’s sex life or general satisfaction. See Appendix F for sample items from the PDS.⁵

Most important for the purposes of this study, the PDS can gauge whether a participant meets a particular criteria used in the diagnosis of PTSD (exposure,

⁵ Reproduction here of all of the PDS items or the scale compositions is prohibited by the publisher.

reexperiencing, avoidance, arousal, symptom duration, and significant distress) and indicate the presence or absence of PTSD (where all DSM criteria are met), thus supplementing the data on trauma-related symptoms provided by the TSI. In Briere's (1997) review of self-report measures for assessing PTSD, he suggested that the PDS has well above-average psychometric properties, and is an excellent choice of a measure to screen for PTSD. For this reason its use complements the use of the TSI in a sample that may have experienced traumatic events, and allows a determination of the portion of the sample that has been exposed to traumatic events other than those examined in this study.

The PDS was normed on 248 men and women aged 17 to 65, from a variety of locations (shelters, treatment clinics, fire stations, ambulance corps, VA hospitals) where individuals had experienced or witnessed a traumatic event at least one month before administration (Foa, 1995). Internal consistency for the 17 symptom items measuring DSM-IV criteria is good, with $\alpha = .92$. Reliability for these items in the present study was also good, with $\alpha = .94$. The scale has good sensitivity (.82) and specificity (.77) for diagnoses of PTSD as measured by the Structured Clinical Interview for DSM-III-R PTSD Module (SCID-PTSD; Williams, et al., 1992).

RESULTS

Relationships among CSA and the sets of variables measuring capacity for interpersonal relationships and psychological adjustment were examined using profile analysis, set correlation, and partial set correlation (Cohen, 1982). Relationships between CSA and adjustment with relationship capacity partialled and between relationship capacity and adjustment with CSA partialled were examined using partial set correlation. The pattern of results indicated that CSA predicted both relationship capacity and adjustment and that relationship capacity predicted adjustment. However, whereas relationship capacity continued to predict adjustment when the effects of CSA were partialled, CSA no longer predicted adjustment when relationship capacity was partialled, indicating that relationship capacity mediated the relationship between CSA and adjustment (Baron & Kenny, 1986).

Child Sexual Abuse and Psychological Adjustment

A history of CSA was associated with poorer psychological adjustment. Sexually abused women were more symptomatic than non-abused women on 5 of the 10 scales on the TSI (Depression, Intrusive Experiences, Defensive Avoidance, Dissociation, and Sexual Concerns) whereas no differences were found on the Anxious Avoidance, Anger/Irritability, Dysfunctional Sexual Behavior, Impaired Self-Reference or Tension Reduction Behaviors scales. In addition, a higher proportion of sexually abused women met criteria for PTSD. Furthermore, sexually abused women exhibited a higher level of interpersonal problems on 3 of the 6 scales on the IIP (Hard to be Sociable, Hard to be Submissive, Hard to be Intimate) whereas no differences were

found on the Hard to be Assertive, Too Controlling, or Too Responsible scales. No significant differences in adjustment were found between women who had experienced intrafamilial CSA and those who had experienced extrafamilial CSA. Results are presented below, in Tables 1 and 2 and in Figures 3 and 4.

Because the adjustment construct was measured by what can be considered two sets of variables (trauma-related symptoms and interpersonal problems), set correlation (Cohen, 1982) was used to evaluate the relationship between the two adjustment measures. The measures were found to be significantly related, $F(70, 572)=4.01$, $p=.00$, adjusted multivariate $R^2=.81$. Therefore, in addition to being examined individually and together, measures of adjustment were analyzed independent of each other (each measure with the other measure partialled). Overall results for analyses of each of the TSI and IIP remained significant when the other adjustment measure was partialled from the analysis. When the TSI was considered independent of the IIP, sexually abused women were more symptomatic on the Defensive Avoidance and Sexual Concerns scales. When the IIP was considered independent of the TSI, although the overall profiles remained significantly different, individual scales did not.

The effect of CSA on psychological adjustment was evaluated using a series of profile analyses. A 3 (CSA groups) by 10 (TSI scales) profile analysis was conducted in order to evaluate the relationship between CSA and trauma-related symptoms. A 3 (CSA groups) by 6 (IIP scales) profile analysis was conducted in order to evaluate the relationship between CSA and interpersonal problems. In addition, in order to evaluate the unique relationship between CSA and each of trauma-related symptoms and

interpersonal problems, profile analyses of each adjustment measure with the other measure partialled were also conducted. For both series of analyses, planned contrasts were conducted in order to compare the No Abuse group to the combined abuse groups and to compare the Intrafamilial Abuse group to the Extrafamilial Abuse group.

Child Sexual Abuse and Trauma-Related Symptoms

The mean TSI scores for the three groups of women (No Abuse, Intrafamilial Abuse, Extrafamilial Abuse) are presented in Table 1 and Figure 3. When TSI means were averaged over all 10 scales, the three groups did not differ significantly with regard to their overall level of psychological adjustment as measured by the TSI, $F(2, 114)=2.94$, $p=.06$, $R^2 =.05$. However, the profiles for the three groups were found to be significantly nonparallel, $F(18,212)=1.63$, $p=.05$, $R^2 =.23$, indicating different responses to the TSI depending on CSA history. Profiles of the No Abuse and the combined abuse groups were significantly different, $F(9, 106)=2.61$, $p=.01$, $R^2 =.18$, whereas profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were not significantly different, $F(9, 106)=0.70$, $p=.71$, $R^2 =.06$.

Differences on individual scales were examined with one-way ANOVAS on each of the TSI scales. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the Intrafamilial Abuse group and the Extrafamilial Abuse group. Results are presented in Table 1. Significant differences between the No Abuse group and the two abuse groups combined were found on the Depression, Intrusive Experiences, Defensive Avoidance, Dissociation, and Sexual Concerns scales whereas no differences were found on the

Anxious Arousal, Anger/Irritability, Dysfunctional Sexual Behavior, Impaired Self-Reference, or Tension Reduction Behavior scales. No differences were found between the Extrafamilial Abuse group and the Intrafamilial Abuse group on any of the TSI scales.

The TSI profile analysis and ANOVAS described above were repeated with the IIP scales partialled from the analyses. When TSI means were averaged over all 10 scales, the three groups did not differ significantly with regard to their overall level of psychological adjustment as measured by the TSI, $F(2, 105)=2.04$, $p=.14$, $R^2=.04$, when considered independent of the IIP. In addition, the profiles for the three groups were no longer found to be significantly nonparallel, $F(18, 194)=1.44$, $p=.12$, $R^2=.22$, indicating that responses to the TSI did not differ significantly depending on CSA history when considered independent of the IIP. However, when considered independent of the IIP, profiles of the No Abuse and the combined abuse groups remained significantly different, $F(9, 97)=2.39$, $p=.01$, $R^2=.18$. Profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were not significantly different, $F(9, 97)=0.56$, $p=.83$, $R^2=.05$.

Differences on individual TSI scales were examined with one-way ANOVAS on each of the TSI scales. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the Intrafamilial Abuse group and the Extrafamilial Abuse group. Differences between the No Abuse group and the combined abuse groups remained significant, independent of the IIP, on the Defensive Avoidance scale, $F(1, 105)=4.54$, $p=.04$, and the Sexual

Concerns scale, $F(1, 105)=6.61$, $p=.01$. No significant differences were found between the Intrafamilial Abuse group and the Extrafamilial Abuse group on any of the TSI scales.

Child Sexual Abuse and Interpersonal Problems

The mean IIP scores for the three groups of women (No Abuse, Intrafamilial Abuse, Extrafamilial Abuse) are presented in Table 2 and Figure 4. When IIP means were averaged over all 6 scales, the three groups did not differ significantly with regard to their overall level of psychological adjustment as measured by the IIP, $F(2, 112)=2.52$, $p=.09$, $R^2=.01$. However, the profiles for the three groups were found to be significantly nonparallel, $F(10, 216)=2.30$, $p=.01$, $R^2=.18$, indicating different responses to the IIP depending on CSA history. Examined separately, profiles of the No Abuse and the combined abuse groups were not significantly different, $F(5, 108)=2.23$, $p=.06$, $R^2=.09$, although the difference approached significance. Profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were not significantly different, $F(5, 108)=2.18$, $p=.06$, $R^2=.09$.

Differences on individual scales were examined with one-way ANOVAS on each of the IIP scales. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the Intrafamilial Abuse group and the Extrafamilial Abuse group. Results are presented in Table 2. Significant differences between the No Abuse group and the two abuse groups combined were found on the Hard to be Sociable, Hard to be Submissive, and Hard to be Intimate scales whereas no differences were found on the Hard to be Assertive, Too

Controlling, or Too Responsible scales. No differences were found between the Extrafamilial Abuse group and the Intrafamilial Abuse group on any of the IIP scales.

The IIP profile analysis and ANOVAS described above were repeated with the TSI scales partialled from the analyses. When IIP means were averaged over all six scales, the three groups did not differ significantly with regard to their overall level of psychological adjustment as measured by the IIP, $F(2, 101)=0.19, p=.83, R^2=.00$, when considered independent of the TSI. However, the profiles remained significantly nonparallel, $F(10, 194)=2.28, p=.02, R^2=.20$, indicating that responses to the IIP significantly differed depending on CSA history when considered independent of the TSI. When considered independent of the TSI, profiles of the No Abuse and the combined abuse groups were not significantly different, $F(5, 97)=1.98, p=.10, R^2=.09$. However, when considered independent of the TSI, profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were significantly different, $F(5, 97)=2.44, p=.04, R^2=.11$.

Differences on individual IIP scales were examined with one-way ANOVAS on each of the IIP scales. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the Intrafamilial Abuse group and the Extrafamilial Abuse group. Differences on the IIP scales between the No Abuse group and the combined abuse groups did not remain significant when considered independent of the TSI. No significant differences were found between the Intrafamilial Abuse group and the Extrafamilial Abuse group on any of the TSI scales.

Child Sexual Abuse and Interpersonal Relationship Capacity

Interpersonal relationship capacity varied as a function of CSA history. In terms of attachment style, results from the RQ indicated that sexually abused women were less Secure, more Fearful, and more Dismissing but not more Preoccupied than women who had not experienced CSA. In terms of object relations functioning, sexually abused women experienced more difficulties on 3 of the 4 scales on the BORRTI (Alienation, Insecure Attachment, and Egocentricity) whereas no difference was found on the Social Incompetence scale. No significant differences in interpersonal relationship capacity were found between women who had experienced intrafamilial abuse versus those who had experienced extrafamilial abuse. Results are presented below, in Tables 7 and 8, and in Figures 5 and 6.

Because the relationship capacity construct was measured by what can be considered two sets of variables (attachment style and object relations functioning), set correlation (Cohen, 1982) was used to evaluate the relationship between the two measures. The measures were found to be significantly related, $F(16, 321.4)=6.46$, $p=.00$, adjusted multivariate $R^2=.51^6$. Therefore, in addition to being examined individually and together, measures of relationship capacity were analyzed independent of each other. Overall results for analyses of the RQ remained significant when the BORRTI was partialled from the analysis. When the RQ was considered independent of the BORRTI, sexually abused women were less Secure and more Dismissing. When the BORRTI was considered independent of the RQ, results were no longer significant.

⁶ It is possible using Cohen's (1984) formulas to find degrees of freedom with decimal values.

The effect of CSA on relationship capacity was evaluated using a series of profile analyses. A 3 (CSA groups) by 4 (RQ styles) profile analysis was conducted in order to evaluate the relationship between CSA and attachment style. A 3 (CSA groups) by 4 (BORRTI scales) profile analysis was conducted in order to evaluate the relationship between CSA and object relations functioning. In addition, in order to evaluate the unique relationship between CSA and each of attachment style and object relations functioning, profile analyses of each relationship capacity measure with the other measure partialled were also conducted. For both series of analyses, planned contrasts were conducted in order to compare the No Abuse group to the combined abuse groups and to compare the Intrafamilial Abuse group to the Extrafamilial Abuse group.

Child Sexual Abuse and Attachment

The mean RQ scores for the three groups of women (No Abuse, Intrafamilial Abuse, Extrafamilial Abuse) are presented in Table 3 and Figure 5. When RQ means were averaged over all 4 styles, the three groups did not differ significantly with regard to their mean level of endorsement of the attachment styles on the RQ, $F(2, 114) = 1.86, p = .16, R^2 = .03$. However, the profiles for the three groups were found to be significantly nonparallel, $F(6, 224) = 3.45, p = .00, R^2 = .16$, indicating different responses to the RQ depending on CSA history. Profiles of the No Abuse and the combined abuse groups were significantly different, $F(3, 112) = 5.47, p = .00, R^2 = .13$, whereas profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were not significantly different, $F(3, 112) = 1.32, p = .27, R^2 = .03$.

Differences on individual scales were examined with one-way ANOVAS on each of the RQ styles. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the Intrafamilial Abuse group and the Extrafamilial Abuse group. Results are presented in Table 3. Significant differences between the No Abuse group and the two abuse groups combined were found on the Secure, Fearful, and Dismissing styles whereas no difference was found on the Preoccupied style. No differences were found between the Extrafamilial Abuse group and the Intrafamilial Abuse group on any of the RQ styles.

The RQ profile analysis and ANOVAS described above were repeated with the BORRTI scales partialled from the analyses. When considered independent of the BORRTI, RQ means were averaged over all four styles, the three groups did not differ significantly with regard to their overall level of endorsement of the attachment styles on RQ, $F(2, 106)=0.72, p=.49, R^2=.01$. However, the profiles remained significantly nonparallel, $F(6,208)=2.44, p=.03, R^2=.13$, indicating that responses to the RQ independent of the BORRTI differed significantly depending on CSA history. When considered independent of the BORRTI, profiles of the No Abuse and the combined abuse groups remained significantly different, $F(3, 104)=3.28, p=.02, R^2=.09$, whereas profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were not significantly different, $F(3, 104)=1.45, p=.23, R^2=.04$.

Differences on individual RQ styles were examined with one-way ANOVAS on each of the RQ styles. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the

Intrafamilial Abuse group and the Extrafamilial Abuse group. Independent of the BORRTI, Differences between the No Abuse group and the combined abuse groups remained significant on the Secure style, $F(1,106)=5.25, p=.02$, and the Dismissing style, $F(1,106)=6.68, p=.01$. No significant differences were found between the Intrafamilial Abuse group and the Extrafamilial Abuse group on any of the RQ styles.

Child Sexual Abuse and Object Relations

The mean BORRTI T-scores for the three groups of women (No Abuse, Intrafamilial Abuse, Extrafamilial Abuse) are presented in Table 4 and Figure 6. When BORRTI mean T-scores were averaged over all four scales, the three groups differed significantly with regard to their mean level of difficulties with object relations functioning on the BORRTI, $F(2, 111)=3.45, p=.04, R^2=.06$. However, the profiles for the three groups were not found to be significantly nonparallel, $F(6, 218)=1.04, p=.40, R^2=.06$, indicating that a different pattern of responses was not obtained on the BORRTI depending on CSA history. Profiles of the No Abuse and the combined abuse groups were not significantly different, $F(3, 109)=1.36, p=.26, R^2=.04$, and profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were not significantly different, $F(3, 109)=1.32, p=.66, R^2=.01$.

Differences on individual scales were examined with one-way ANOVAS on each of the BORRTI scales. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the Intrafamilial Abuse group and the Extrafamilial Abuse group. Results are presented in Table 4. Significant differences between the No Abuse group and the two

abuse groups combined were found on the Alienation, Insecure Attachment, and Egocentricity scales whereas no difference was found on the Social Incompetence scale. No differences were found between the Extrafamilial Abuse group and the Intrafamilial Abuse group on any of the BORRTI scales.

The BORRTI profile analysis and ANOVAS described above were repeated with the RQ styles partialled from the analyses. When considered independent of the RQ, BORRTI mean T-scores were averaged over all four scales, the three groups did not differ significantly with regard to their overall level of endorsement of difficulties in object relations functioning, $F(2, 106)=0.41, p=.67, R^2=.01$. In addition, the profiles remained significantly nonparallel, $F(6,208)=1.15, p=.34, R^2=.06$, indicating that responses to the BORRTI independent of the RQ differed significantly depending on CSA history. When considered independent of the RQ, profiles of the No Abuse and the combined abuse groups were not different, $F(3, 104)=1.22, p=.31, R^2=.03$, and profiles of the Extrafamilial Abuse group and the Intrafamilial Abuse group were not significantly different, $F(3, 104)=1.00, p=.40, R^2=.03$.

Differences on individual BORRTI scales were again examined with one-way ANOVAS on each of the BORRTI scales. ANOVAS were followed by planned orthogonal comparisons between the No Abuse group and the two abuse groups combined, and between the Intrafamilial Abuse group and the Extrafamilial Abuse group. No significant differences were found between the No Abuse group and the combined abuse groups or between the Intrafamilial Abuse group and the Extrafamilial Abuse group on any of the BORRTI scales independent of the RQ.

Interpersonal Relationship Capacity and Psychological Adjustment

Interpersonal relationship capacity was found to predict psychological adjustment. Relationship capacity predicted adjustment as measured by the TSI and the IIP. Attachment and object relations functioning each predicted both trauma-related symptoms and interpersonal problems. In addition, results for the TSI were supported by the fact that a diagnosis of PTSD was reliably predicted by relationship capacity, and was reliably predicted by either attachment or object relations functioning. Results are presented below and in Tables 3 through 6.

Because the construct of relationship capacity (including attachment style and object relations functioning) and the construct of psychological adjustment (including trauma-related symptoms and interpersonal problems) were each measured by what can be considered two sets of variables, set correlation (Cohen, 1982) was used to evaluate the relationship between the individual components within and between constructs. Conceptually, this approach can be compared to multivariate multiple regression; however, in this case, constructs are measured by sets of variables rather than individual variables.

In addition to being examined together and separately, set correlations examined measures of relationship capacity and adjustment independent of each other (with the other measures partialled). As noted, overall relationship capacity predicted both trauma-related symptoms and interpersonal problems. Overall relationship capacity also predicted trauma-related symptoms independent of interpersonal problems and interpersonal problems independent of trauma-related symptoms.

Attachment and object relations functioning each separately predicted both trauma-related symptoms and interpersonal problems. When considered independent of attachment, object relations functioning predicted both trauma-related symptoms and interpersonal problems. However, when considered independent of object relations functioning, attachment predicted interpersonal problems but no longer significantly predicted trauma-related symptoms. Attachment and object relations functioning each predicted the unique variance in trauma-related symptoms and the unique variance in interpersonal problems. The unique variance in attachment and the unique variance in object relations functioning each predicted both the unique variance in trauma-related symptoms and the unique variance in interpersonal problems.

Interpersonal Relationship Capacity and Trauma-Related Symptoms

As noted, the relationship between trauma-related symptoms and each of attachment and object relations functioning were examined using set correlation. When considering attachment and object relations functioning together, relationship capacity predicted trauma-related symptoms, $F(80,611.1) = 3.24$, adjusted multivariate $R^2 = .77$, $p = .00$.

Attachment predicted trauma related symptoms, $F(40,392.4) = 2.70$, adjusted multivariate $R^2 = .43$, $p = .00$. Subsequent univariate regression analyses found that Secure attachment predicted Anxious Arousal, Depression, Intrusive Experiences, Defensive Avoidance, Dissociation, and Impaired Self-Reference. Fearful attachment predicted Anger Irritability, Sexual Concerns, Dysfunctional Sexual Behavior and Tension Reduction Behavior. Preoccupied attachment predicted Anxious Arousal,

Depression, Anger Irritability, and Tension Reduction Behavior. Dismissing attachment did not significantly predict any of the TSI scales. Results are presented in Table 7.

Similarly, object relations functioning predicted trauma related symptoms, $F(40,377.3)=5.454$, adjusted multivariate $R^2=.74$, $p=.00$. Subsequent univariate analyses found that Alienation predicted Depression, Intrusive Experiences, Defensive Avoidance, Dissociation, and Impaired Self-Reference. Insecure Attachment (BORRTI) predicted Anxious Arousal, Anger Irritability, Defensive Avoidance, Dissociation, Sexual Concerns, Dysfunctional Sexual Behavior and Tension Reduction Behavior. Egocentricity predicted Dissociation and Impaired Self-Reference. Social Incompetence predicted Impaired Self-Reference. Results are presented in Table 8.

Partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting trauma-related symptoms. Object relations functioning independent of attachment predicted trauma-related symptoms, $F(40,362.1)=3.57$, adjusted multivariate $R^2=.58$, $p=.00$. However, attachment independent of object relations functioning did not predict trauma-related symptoms, $F(40,362.1)=1.51$, adjusted multivariate $R^2=.11$, $p=.11$.

Partial set correlation was used to evaluate the relationship between relationship capacity and trauma-related symptoms, independent of interpersonal problems. Relationship capacity was found to predict the unique variance in trauma-related symptoms, $F(80,554)=2.04$, adjusted multivariate $R^2=.54$, $p=.00$. Finally, partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting the unique variance in trauma-related symptoms.

Attachment uniquely predicted trauma-related symptoms independent of interpersonal problems, $F(40,328) = 1.51$, adjusted multivariate $R^2 = .19$, $p = .00$. Object relations functioning uniquely predicted trauma-related symptoms independent of interpersonal problems, $F(40,328) = 2.01$, adjusted multivariate $R^2 = .33$, $p = .00$.

Interpersonal Relationship Capacity and PTSD. Again, data from the PDS supplemented data from the TSI. A diagnosis of PTSD was reliably predicted by relationship capacity, $F(8,1) = 5.14$, $R^2 = .29$. Eighty percent ($n=28$) of those receiving the diagnosis were correctly classified and 71% ($n=52$) of those not receiving a diagnosis of PTSD were correctly classified. A diagnosis of PTSD was reliably predicted by attachment, $F(4,1) = 2.82$, $R^2 = .10$. Sixty-four percent ($n=23$) of those receiving the diagnosis were correctly classified and 59% percent ($n=45$) of those not receiving a diagnosis of PTSD were correctly classified. A diagnosis of PTSD was reliably predicted by object relations functioning, $F(8,1) = 7.91$, $R^2 = .23$. Sixty-nine percent ($n=24$) of those receiving the diagnosis were correctly classified and 76% ($n=56$) of those not receiving a diagnosis of PTSD were correctly classified.

Interpersonal Relationship Capacity and Interpersonal Problems

As noted, the relationship between interpersonal problems and each of attachment and object relations functioning were examined using set correlation. When considering attachment and object relations functioning together, relationship capacity was found to predict interpersonal problems, $F(48,476.4) = 5.44$, adjusted multivariate $R^2 = .81$, $p = .00$.

Attachment was found to predict interpersonal problems, $F(24,364)=5.25$, adjusted multivariate $R^2=.56$, $p=.00$. Subsequent univariate regression analyses found that Secure attachment predicted scores on Hard to be Assertive, Hard to be Sociable, and Hard to be Intimate. Fearful attachment predicted scores on Hard to be Sociable, Hard to be Intimate, Too Responsible, and Too Controlling. Preoccupied attachment predicted scores on Hard to be Sociable, Hard to be Submissive, and Too Controlling. Dismissing attachment predicted scores on Hard to be Submissive. Results are presented in Table 7.

Similarly, object relations functioning was found to predict interpersonal problems, $F(24,353.6)=8.15$, adjusted multivariate $R^2=.73$, $p=.00$. Subsequent univariate results found that Alienation predicted scores on Hard to be Sociable, Hard to be Submissive, Hard to be Intimate, and Too Responsible. Insecure Attachment (BORRTI) predicted scores on Hard to be Submissive, Hard to be Intimate, Too Responsible, and Too Controlling. Social Incompetence predicted scores on Hard to be Assertive and Hard to be Sociable. Results are presented in Table 8.

Partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting interpersonal problems. Attachment independent of object relations functioning predicted interpersonal problems, $F(24, 336.1)=2.60$, adjusted multivariate $R^2=.30$, $p=.00$. Object relations functioning independent of attachment predicted interpersonal problems, $F(24,336.1)=5.15$, adjusted multivariate $R^2=.57$, $p=.00$.

Partial set correlation was used to evaluate the relationship between interpersonal problems and relationship capacity, independent of trauma-related symptoms. Relationship capacity was found to predict interpersonal problems independent of trauma-related symptoms, $F(48,427.2)=3.27$, adjusted multivariate $R^2=.64$, $p=.00$. Finally, partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting the unique variance in interpersonal problems. Attachment uniquely predicted interpersonal problems independent of trauma-related symptoms, $F(24,301.2)=2.94$, adjusted multivariate $R^2=.37$, $p=.00$. Object relations functioning uniquely predicted trauma-related symptoms independent of interpersonal problems, $F(24,301.2)=2.64$, adjusted multivariate $R^2=.33$, $p=.00$.

Interpersonal Relationship Capacity as a Mediator Between CSA and

Psychological Adjustment

Interpersonal relationship capacity was expected to mediate the relationship between child sexual abuse and psychological adjustment. Specifically, adult attachment style, as measured by the Relationship Questionnaire (RQ), and object relations functioning, as measured by the Bell Object Relations and Reality Testing Inventory (BORRTI), were expected to mediate the relationship between child sexual abuse and adjustment, as measured by the Trauma Symptom Inventory (TSI) and Inventory of Interpersonal Problems (IIP). That is, it was expected that the relationship between child sexual abuse and adjustment would be dramatically reduced or eliminated when adult attachment style and object relations functioning were accounted for.

According to Baron and Kenny (1986), pairwise relationships between constructs are required as a first step for evaluating a model in which relationship capacity mediates the relationship between CSA and adjustment. The second step requires regressing psychological adjustment on CSA and relationship capacity simultaneously. In this way, the unique contribution of each of CSA and interpersonal relationship capacity to the prediction of psychological adjustment can be evaluated. Moreover, a model in which relationship capacity mediates the relationship between CSA and adjustment will be supported if relationship capacity remains significantly related to psychological adjustment independent of CSA, while CSA shows no independent relationship to adjustment.

The pattern of results indicated that CSA predicted interpersonal relationship capacity and each of CSA and interpersonal relationship capacity predicted psychological adjustment; however, relationship capacity mediated the relationship between CSA and adjustment, with CSA ceasing to predict adjustment after relationship capacity was taken into account. Thus, a mediational model, in which interpersonal relationship capacity can be understood as a mediator between CSA and psychological adjustment was supported. Specific results for each component of the model are presented below.

In order to investigate the possibility that relationship capacity mediates between CSA and adjustment, results from analyses to this point were examined and an additional series of partial set correlations was conducted. Analyses investigated to what extent 1) CSA predicted adjustment, 2) relationship capacity predicted adjustment, and

3) CSA predicted relationship capacity. Partial set correlations were conducted to investigate 1) to what extent relationship capacity predicted adjustment after the variance attributable to CSA was accounted for, and 2) to what extent CSA predicted adjustment after the variance attributable to relationship capacity was accounted for.

CSA Predicts Adjustment

Set correlation indicated that CSA was a significant predictor of overall adjustment as measured by the TSI and the IIP together, $F(30, 196) = 1.64, p = .03$, adjusted multivariate $R^2 = .35$. Profile analyses described in the previous section titled *Child Sexual Abuse and Psychological Adjustment* also indicated that a history of CSA was associated with poorer psychological adjustment. Sexually abused women were more symptomatic than non-abused women on 5 of the 10 scales on the TSI (Depression, Intrusive Experiences, Defensive Avoidance, Dissociation, and Sexual Concerns). In addition, sexually abused women exhibited a higher level of interpersonal problems than non-abused women on 3 of the 6 scales on the IIP (Hard to be Sociable, Hard to be Submissive, Hard to be Intimate).

In addition to being examined together, measures of adjustment were analyzed independent of each other. Overall results for the profile analyses of each of the TSI and IIP remained significant when the other adjustment measure was partialled from the analysis. When the TSI was considered independent of the IIP, sexually abused women were more symptomatic on the Defensive Avoidance and Sexual Concerns scales than women who had not experienced CSA. When the IIP was considered independent of the

TSI, although the overall profiles remained significantly different for sexually abused and non-abused women, differences on individual scales did not reach significance.

CSA Predicts Relationship Capacity

CSA was a significant predictor of overall relationship capacity as measured by the RQ and the BORRTI together, $F(16, 206) = 1.77, p = .04$, adjusted multivariate $R^2 = .21$. Profile analyses described in the previous section titled *Child Sexual Abuse and Interpersonal Relationship Capacity* also indicated interpersonal relationship capacity varied as a function of CSA history. In terms of attachment style, results from the RQ indicated that sexually abused women were less Secure, more Fearful, and more Dismissing than women who had not experienced CSA. In terms of object relations functioning, sexually abused women experienced more difficulties on 3 of the 4 scales on the BORRTI (Alienation, Insecure Attachment, and Egocentricity).

In addition to being examined together, measures of relationship capacity were analyzed independent of each other. Overall results for the profile analyses of each of the RQ and BORRTI remained significant when the other relationship capacity measure was partialled from the analysis. When the RQ was considered independent of the BORRTI, sexually abused women were less Secure and more Dismissing than women who had not experienced CSA. When the BORRTI was considered independent of the RQ, although the overall profiles remained significantly different for sexually abused and non-abused women, differences on individual scales did not reach significance.

Relationship Capacity Predicts Adjustment

Set correlation indicated that relationship capacity, as measured by the RQ and the BORRTI together, was a significant predictor of adjustment, as measured by the TSI and IIP together, $F(120, 638)=3.46, p=.00$, adjusted multivariate $R^2=.97$. Set correlations described in the previous section titled *Interpersonal Relationship Capacity and Psychological Adjustment* also indicated that interpersonal relationship capacity predicts psychological adjustment.

In addition to being examined together, a series of set correlations examined measures of relationship capacity and adjustment separately as well as independent of each other. Overall relationship capacity predicted both trauma-related symptoms and interpersonal problems. Overall relationship capacity also predicted trauma-related symptoms independent of interpersonal problems and interpersonal problems independent of trauma-related symptoms.

Attachment and object relations functioning each separately predicted both trauma-related symptoms and interpersonal problems. When considered independent of attachment, object relations functioning predicted both trauma-related symptoms and interpersonal problems. However, when considered independent of object relations functioning, attachment predicted interpersonal problems no longer significantly predicted trauma-related symptoms. Attachment and object relations functioning also each uniquely predicted trauma-related symptoms independent of interpersonal problems and interpersonal problems independent of trauma-related symptoms.

Relationship Capacity Remains a Significant Predictor of Adjustment, Whereas CSA Ceases to be a Significant Predictor

To this point, the results have indicated that CSA predicts relationship capacity and adjustment and that relationship capacity predicts adjustment. As noted above, these pairwise relationships between constructs are required as a first step for evaluating a model in which relationship capacity mediates the relationship between CSA and adjustment. The second step requires regressing psychological adjustment on CSA and relationship capacity simultaneously. In this way, the unique contribution of each of CSA and interpersonal relationship capacity to the prediction of psychological adjustment can be evaluated. A model in which relationship capacity mediates the relationship between CSA and adjustment will be supported if relationship capacity remains significantly related to adjustment independent of CSA, while CSA shows no (or a dramatically reduced) independent relationship to adjustment.

Relationship Capacity Predicts Psychological Adjustment Independent of CSA

Partial set correlation indicated that overall relationship capacity remained a significant predictor of overall adjustment when CSA was partialled out of both relationship capacity and adjustment, $F(128, 618.4)=3.22, p=.00$, adjusted multivariate $R^2=.90$. In addition, the previous analyses examining each measure separately and independent from each other, described in the section titled *Interpersonal Relationship Capacity and Psychological Adjustment*, were repeated with CSA partialled from each analysis.

As for the previous analyses, a series of set correlations examined measures of relationship capacity and adjustment together, separately, and independent from each other. Independent of CSA, overall relationship capacity predicted both trauma-related symptoms and interpersonal problems. Independent of CSA, overall relationship capacity also predicted the unique variance in trauma-related symptoms and the unique variance in interpersonal problems.

Independent from CSA, attachment and object relations functioning each separately predicted both trauma-related symptoms and interpersonal problems. Independent from CSA, the unique variance in object relations functioning predicted both trauma-related symptoms and interpersonal problems. Independent from CSA, the unique variance in object relations functioning and the unique variance in attachment both predicted interpersonal problems but attachment with object relations partialled no longer significantly predicted trauma-related symptoms. Independent of CSA, the unique variance in object relations functioning the unique variance in attachment both predicted the unique variance in trauma-related symptoms and the unique variance in interpersonal problems.

Relationship Capacity Predicts Trauma-Related Symptoms Independent of CSA.

The relationships between trauma-related symptoms and each of attachment and object relations functioning independent of CSA were examined using partial set correlation. Independent of CSA, attachment was found to predict trauma related symptoms, $F(40,384.8)=2.39$, adjusted multivariate $R^2=.73$, $p=.00$. Similarly, independent of CSA, object relations functioning was found to predict trauma related symptoms,

$F(40,369.7)=5.45$, adjusted multivariate $R^2=.74$, $p=.00$. Independent of CSA, when considering attachment and object relations functioning together, relationship capacity was found to predict trauma-related symptoms, $F(80,598.4)=3.08$, adjusted multivariate $R^2=.75$, $p=.00$.

Partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting trauma-related symptoms independent of CSA. Independent of CSA, object relations functioning uniquely predicted trauma-related symptoms, $F(40,354.5)=3.53$, adjusted multivariate $R^2=.58$, $p=.00$. However, independent of CSA, attachment did not uniquely predict trauma-related symptoms, $F(40,354.5)=1.25$, adjusted multivariate $R^2=.09$, $p=.15$.

Partial set correlation was used to evaluate the relationship between the unique variance in trauma-related symptoms and relationship capacity, independent of CSA. Independent of CSA, relationship capacity was found to predict the unique variance in trauma-related symptoms, $F(80,541.3)=1.92$, adjusted multivariate $R^2=.51$, $p=.00$.

Similarly, partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting the unique variance in trauma-related symptoms, independent of CSA. Independent of CSA, attachment uniquely predicted the unique variance in trauma-related symptoms, $F(40,320.4)=1.35$, adjusted multivariate $R^2=.14$, $p<.001$ and object relations functioning uniquely predicted the unique variance in trauma-related symptoms, $F(40,320.4)=1.90$, adjusted multivariate $R^2=.30$, $p=.00$.

Relationship Capacity Predicts Interpersonal Problems Independent of CSA. The

relationships between interpersonal problems and each of attachment and object relations functioning independent of CSA were examined using partial set correlation. Independent of CSA, attachment was found to predict interpersonal problems, $F(24,357)=4.62$, adjusted multivariate $R^2=.65$, $p=.00$. Similarly, independent of CSA, object relations functioning was found to predict interpersonal problems, $F(24,346.6)=7.84$, adjusted multivariate $R^2=.72$, $p=.00$. Independent of CSA, when considering attachment and object relations functioning together, relationship capacity was found to predict interpersonal problems, $F(48,466.6)=5.16$, adjusted multivariate $R^2=.80$, $p=.00$.

Partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting interpersonal problems independent of CSA. Independent of CSA, attachment uniquely predicted interpersonal problems independent of CSA, $F(24,329.1)=2.39$, adjusted multivariate $R^2=.27$, $p=.00$. Object relations functioning uniquely predicted interpersonal problems, $F(24,329.1)=5.20$, adjusted multivariate $R^2=.58$, $p=.00$.

Partial set correlation was used to evaluate the relationship between relationship capacity and the unique variance in interpersonal problems. Relationship capacity was found to predict the unique variance in interpersonal problems independent of CSA, $F(48,417.4)=3.12$, adjusted multivariate $R^2=.62$, $p=.00$.

Partial set correlation was used to evaluate the unique contributions of attachment and object relations functioning in predicting the unique variance in

interpersonal problems, independent of CSA. Independent of CSA, attachment uniquely predicted the unique variance in interpersonal problems, $F(24,294.3)=2.61$, adjusted multivariate $R^2=.33$, $p=.00$. Similarly, object relations functioning uniquely predicted the unique variance in trauma-related symptoms, $F(24,294.3)=2.69$, adjusted multivariate $R^2=.34$, $p=.00$.

CSA Ceases to Predict Adjustment Independent of Relationship Capacity

The relationship between CSA and adjustment, measured by the TSI and IIP together, became non-significant when relationship capacity, measured by the RQ and BORRTI together, was partialled out of both CSA and adjustment, $F(32, 168)=1.04$, $p=.41$, adjusted multivariate $R^2=.01$. In addition to being examined together, measures of adjustment and relationship capacity were analyzed independent of each other.

CSA ceased to predict trauma-related symptoms when either attachment was accounted for, $F(20, 202)=.96$, adjusted multivariate $R^2=0.00$, $p=.51$, or object relations functioning was accounted for, $F(20, 194)=.54$, adjusted multivariate $R^2=.00$, $p=.54$. CSA also ceased to predict the unique variance in trauma-related symptoms when either attachment was accounted for, $F(20, 184)=1.10$, adjusted multivariate $R^2=0.02$, $p=.36$, or object relations functioning was accounted for, $F(20, 176)=1.11$, adjusted multivariate $R^2=0.02$, $p=.35$.

CSA ceased to predict interpersonal problems when attachment was accounted for, $F(20, 204)=1.20$, adjusted multivariate $R^2=0.02$, $p=.28$. However, CSA remained a predictor of interpersonal problems when object relations functioning was accounted for, $F(12,198)=1.79$, adjusted multivariate $R^2=0.09$, $p=.05$. CSA also

ceased to predict the unique variance in interpersonal problems when attachment was accounted for, $F(12, 184)=1.47$, adjusted multivariate $R^2=0.06$, $p=.14$. However, again CSA remained a predictor of the unique variance in interpersonal problems when object relations functioning was accounted for, $F(12, 176)=2.10$, adjusted multivariate $R^2=0.13$, $p=.02$.

DISCUSSION

This study examined the relationship among child sexual abuse, interpersonal relationship capacity, and psychological adjustment. The construct of interpersonal relationship capacity was conceived of as including the related constructs of attachment and object relations functioning. Psychological adjustment was conceptualized as including both trauma-related symptoms and interpersonal difficulties. The pattern of results demonstrated that interpersonal relationship capacity appears to mediate the relationship between a history of child sexual abuse and psychological adjustment in adulthood. A history of child sexual abuse was associated both with poorer psychological adjustment and with more difficulties in the area of attachment and object relations. In addition, attachment and object relations functioning predicted psychological adjustment. In general, the relationship between the capacity for interpersonal relationships and psychological adjustment remained significant when the effect of child sexual abuse was taken into account whereas the relationship between child sexual abuse and adjustment became non-significant when the effect of relationship capacity was taken into account, suggesting that interpersonal relationship capacity may be a process through which the impact of child sexual abuse influences later psychological adjustment.

Child Sexual Abuse and Later Psychological Adjustment

As expected, initial analyses indicated that a history of child sexual abuse was associated with poorer psychological adjustment; thus, the first hypothesis was supported. In terms of trauma-related symptoms, sexually abused women were more

symptomatic than non-abused women on five of the ten scales on the TSI. In particular, they reported more symptoms of depression (such as sadness and hopelessness), intrusive posttraumatic reactions and symptoms (such as flashbacks, nightmares, and intrusive thoughts), avoidance of aversive internal experiences (such as pushing painful thoughts or memories out of one's mind and avoidance of stimuli reminiscent of a traumatic event), dissociative symptomatology (such as depersonalization and derealization), and sexual distress and dysfunction (such as sexual dissatisfaction and unwanted sexual thoughts or feelings). In support of these results, a higher proportion of sexually abused women also met formal DSM-IV criteria for PTSD.

Sexually abused women, when compared with non-abused women, did not report more symptoms in some areas. These included hyperarousal (such as jumpiness and tension), anger (such as irritable affect, angry cognitions or angry behavior), dysfunctional sexual behavior (such as indiscriminate sexual behavior, sexual behavior with a potential for self-harm, or sexual behavior to accomplish nonsexual goals), impaired self-reference (such as identity confusion or self-other disturbance), and the tendency to use external methods of reducing internal tension or distress (such as self-mutilation or angry outbursts). It is important, however, to understand these non-significant findings in context. As will be noted in Figure 3, all three groups in this study report considerably more problems with hyperarousal, anger and irritability, and impaired self-reference than the normative sample. In terms of dysfunctional sexual behavior, some sexually abused women did report more difficulties than non-sexually abused women in this regard (in this case, women in the extrafamilial abuse group),

although the difference between the two abuse groups or between the abused groups and the non-abused group did not reach significance. All of the groups in this sample reported little difficulty in the area of tension-reduction behavior, and scored close to the normative scores on the TSI. Anecdotal evidence indicated that although this was not a problem for many women, it was indeed a serious issue for a minority of women who were interviewed. For example, a few women described experiences such as self-mutilation or significant substance abuse that would fall into this category.

With regard to interpersonal problems, sexually abused women reported higher levels of interpersonal problems on three of the six scales on the IIP. In particular, they reported that it is hard to be sociable (e.g., harder to socialize, make friends, join groups, introduce oneself, feel comfortable, feel self-confident or relaxed around others, open up and share feelings; being too sensitive to criticism or rejection, avoiding others or keeping others at a distance), it is hard to be submissive in relationships (e.g., hard to get along with others, accept others' authority, maintain a working relationship with a disliked colleague; being too easily annoyed, losing one's temper too easily, arguing too much, or wanting to get revenge against others), and it is hard to be intimate in relationships (e.g., hard to make a long-term commitment, have someone dependent on her, experience feelings of love, be honest, supportive, empathic, or really care about someone, put someone else's needs first; being too critical of others).

Sexually abused women, when compared with the non-abused group, did not report more interpersonal difficulties in some areas. These included difficulty being

assertive (e.g., hard to say no to others, hard to stick to one's own point of view and not be swayed), being too controlling (e.g., fighting with others too much, trying to change others too much, being aggressive toward other people), and being too responsible (e.g., putting others' needs before one's own too much, feeling guilty for what one has done). As seen in Figure 4, in these areas, all three groups of women scored near the norms for the IIP.

These findings that, overall, a history of sexual abuse predicts poorer adjustment are consistent with previous research, reviews, and meta-analyses (e.g., Briere & Runtz, 1993; Browne & Finkelhor, 1986a; Elliott, 1994; Jumper, 1995; Newmann, Houskamp, Pollock, & Briere, 1996; Roche, Runtz, & Hunter, 1999; Rodriguez, Ryan Vande Kemp, & Foy, 1997) which have shown that a history of child sexual abuse is associated with elevations on a variety of measures of adjustment, including both trauma-related symptoms and difficulties in interpersonal relationships.

Notably, whereas meta-analyses (Jumper, 1995; Newmann et al., 1996) estimate that a history of child sexual abuse accounts for 7 to 13% of the variation in adult symptomatology, this study found that 23% of the variation in adult interpersonal problems are accounted for by a history of child sexual abuse and 18% of the variation in trauma-related symptoms in adulthood are accounted for by such a history. Clearly, any individual study's findings are not likely to be as robust as those from a meta-analysis. However, as Jumper (1995) points out, the student samples included in the meta-analyses yielded significantly lower effect size estimates than did the community, clinical, or other sample samples and hence, lowered overall effect sizes. Adult

survivors of child sexual abuse from student populations may experience fewer adjustment difficulties than women from a community or clinical population such as the one in this study. This supposition is supported by the fact that in the student sample described by Roche, Runtz, and Hunter (1999), 10% of the variation in trauma-related symptoms was accounted for by a history of child sexual abuse compared with the 18% to 23% found here. Furthermore, mean scores on the TSI were generally lower than for the respective groups in the present study. See Figure 7 for profiles on the TSI for the three groups in both studies. It is also important to note that the extent to which women's adjustment is affected by child sexual abuse depends on which area of functioning is being considered. It may be that averaging across areas of adjustment blurs the distinctions between various domains of symptoms or functioning.

In this study, no significant differences in adjustment were found between women who had experienced intrafamilial child sexual abuse and those who had experienced extrafamilial child sexual abuse. This finding is in contrast to the findings of Roche, Runtz, and Hunter (1999) whereby intrafamilial abuse was associated with poorer adjustment, but in agreement with major theorists who suggest that distinguishing between sexual abuse which occurs within the family and that which occurs outside the family is not necessarily of central importance (Briere, 1992a; Friedrich, 1990). Instead, as this study indicates, extrafamilial abuse can be equally damaging. The results from this study suggest that complex interactions between a variety of contextual factors are probably important for determining the extent and nature of sequelae. In particular, rather than simply looking at group differences based

on the intrafamilial/extrafamilial distinction, results from this study imply that we need to know more about the relationship context in which the abuse occurred. For example, it might be important to understand the participant's perspective on how close the relationship with her perpetrator was, the extent to which she trusted him or her and/or felt betrayed by the abuse, whether she considered the perpetrator "part of the family" (biology notwithstanding), and the nature of the relationship between the victim and perpetrator and between her parents or family and the perpetrator. The combination of answers to questions such as these might provide us with a clearer picture of the dynamics the intrafamilial/extrafamilial distinction is attempting to tap.

Another important part of the relationship context is the participant's experience of other forms of abuse by the sexual abuse perpetrator or other individuals. Although the effects of child sexual abuse might remain even when other forms of abuse are taken into account, the synergistic effects of multiple forms of abuse should be carefully considered. As Briere (1992a) points out, it is unlikely that child sexual abuse occurs independent of other forms of abuse. Furthermore, it seems likely that negative effects will be exacerbated, for example, if the child sexual abuse perpetrator is also severely physically abusive to the victim or her family members. Similarly, when a high proportion of the "non-abused" sample has actually experienced non-sexual abuse or trauma, the sequelae they experience are likely to overlap considerably with those experienced by a sexually abused sample.

Moderating Variables and Sample Characteristics

In this study, it is important to note that non-abused group also reported exposure to significant trauma. The non-abused sample scored higher than the normative sample on the TSI (see Figure 3). Similarly, 61% of the non-abused group met DSM-IV criteria for exposure to a traumatic event and approximately 19% of this group met criteria for PTSD. Although fewer non-abused women than abused women met criteria for PTSD, a 19% point prevalence rate is considerably higher than would be expected based on a DSM-IV expected lifetime prevalence rate of 1 to 14% for populations not considered at-risk. Obviously, a 61% rate of exposure to traumatic events is also very high and the non-abused group did not differ from the abused groups in this regard. Some of these other events may have led to elevations on adjustment measures for some women in the non-abused group. For this reason, group differences on adjustment measures may be somewhat attenuated relative to comparisons between a child sexual abuse sample and a “no abuse” sample or between a child sexual abuse sample and a non-abused group that more accurately represents the general population.

Another example of how the non-abused group might differ from the general population of women who have not been sexually abused can be found in the data regarding unwanted sexual contact as an adult. More than half of the overall sample reported that they had experienced unwanted sexual contact as an adult, and this did not differ based on child sexual abuse history. This is a considerably higher proportion of the sample than estimates of 15% to 25% in the general population or an estimate of about 38% in outpatient and inpatient samples (Walker, 1994). The literature indicates

an increased risk for revictimization following child sexual abuse (e.g., Briere & Runtz, 1988; Wyatt, Guthrie, & Notgrass, 1992; Runtz & Briere, 1988); however, it is probably also be true that other forms of abuse (especially within interpersonal relationships) increase the likelihood of subsequent revictimization. For this reason, it is possible that the non-abused sample also had experiences other than child sexual abuse that put them at higher risk for revictimization than would be expected in the general population. It is unclear the extent to which results are reflective of revictimization experiences rather than, or in addition to, childhood experiences. Similarly, the extent to which adult sexual victimization in the non-abused sample may have attenuated group differences.

In addition, almost the entire sample indicated that they had at some point participated in counseling or therapy of some kind. Further, almost one third of the sample indicated that they were currently participating in counseling or therapy and this did not differ based on whether they had experienced child sexual abuse. These proportions again imply that the non-abused sample in this study is probably different in many ways from non-abused women in general. Likewise, 42% of the sample (who had a mean age of 39) indicated that they were not in a serious relationship at the time of the study and this did not differ based on group membership. It is likely that more women in this sample, compared with the general population, were not in a serious relationship. Clearly, this may have impacted the findings, especially with regard to ratings of attachment and responses about object relations functioning, as well as interpersonal problems and this again might have served to blur possible distinctions

between the sexually abused sample and non-abused women in general. Moreover, it is conceivable that a portion of the sample actively choose not to be in intimate relationships, and this could itself be considered a sign of impaired relationship capacity or an attempt to defend against the painfulness of interpersonal relationships. The implications of these sample characteristics are further discussed below with regard to the limitations of the study.

This study also examined moderating characteristics of the sexual abuse itself which may be important for understanding the impact of child sexual abuse, and in particular, for understanding the absence of adjustment differences between the intrafamilial and extrafamilial abuse groups in this study. Kendall-Tackett, Williams, and Finkelhor (1993) have noted that many moderating variables may be considered to be naturally confounded (e.g., intrafamilial abuse may be confounded with longer duration and higher severity). For this reason, group differences based on the intrafamilial/extrafamilial distinction found by Roche, Runtz, and Hunter may have been due to any or a combination of these naturally confounded variables rather than due simply to whether the abuse occurred within or outside the family.

The intrafamilial and extrafamilial groups differed on a few dimensions. In the present study, compared with women who had experienced extrafamilial child sexual abuse, women who had experienced intrafamilial child sexual abuse were younger at the age of onset of abuse and were more likely to have withheld disclosure of their abuse experiences until adulthood. Although the mean age of the perpetrator and the mean age difference between the perpetrator and the victim was larger for women who

had experienced intrafamilial abuse, the mean age difference was uniformly large for both groups (approximately twenty-three and thirteen, respectively); therefore, this may not be a clinically important distinction.

Notably, other such characteristics of the abuse that one might have expected to differ between the intrafamilial and extrafamilial groups in Roche, Runtz, and Hunter (1999) were not significantly different in this sample. For example, in this sample, 67 percent of sexually abused participants reported severe child sexual abuse, thus indicating that they had experienced intercourse, attempted intercourse, oral-genital contact, or anal/vaginal insertion of objects. Differences in the proportions of severe, moderately severe, and less severe abuse were not significant among groups. In addition, neither the number of incidents nor the length of the incident of longest duration was significantly different for the two abuse groups. Similarly, there was no significant difference between the abuse groups in terms of having met DSM-IV criteria for exposure to a traumatic event. These results may in part reflect a sampling bias due to self-selection, given that participants were informed that experiences of abuse were a focus of the study (see Recruiting Brochure, Appendix A). Nevertheless, they also point to the fact that such moderating factors should be routinely considered when investigating the relationship between child sexual abuse and adjustment.

Child Sexual Abuse Related to Attachment and Object Relations Functioning

As expected, analyses also indicated that relationship capacity varied as a function of child sexual abuse history; thus, the second hypothesis was supported. Along with experiencing a greater number of trauma-related symptoms and more

interpersonal problems, women who had a history of child sexual abuse reported a less secure attachment pattern and more difficulties in object relations functioning.

In terms of attachment style, results from the RQ indicated that sexually abused women were less Secure (less comfortable with intimacy and autonomy), more Fearful (more fearful of intimacy and socially avoidant), and more Dismissing (more dismissing of intimacy and tending to protect oneself against disappointment in relationships by maintaining a sense of independence and invulnerability) than women who had not experienced child sexual abuse.

In terms of object relations functioning, results on the BORRTI indicated that sexually abused women experienced more Alienation (lack of basic trust, inability to attain closeness, hopelessness about maintaining a stable and satisfying level of intimacy), more Insecure Attachment (sensitivity to rejection, neurotic concerns about being liked and accepted, painful interpersonal relationships), and more Egocentricity (mistrust of others' motivations, others exist only in relation to oneself, others are to be manipulated for one's own aims).

Consistent with the results described above with regard to the relationship between child sexual abuse and adjustment, no significant differences in interpersonal relationship capacity were found between women who had experienced intrafamilial abuse versus those who had experienced extrafamilial abuse.

Results from this study suggest that women who have experienced child sexual abuse have more difficulties with their internal representations of self and others in relationships. For example, in terms of their representations of others, this may be

reflected in the following: a lack of basic trust in relationships, as suggested by higher scores on Alienation; the expectation that others will not be available or supportive, as suggested by lower scores on Secure attachment; an avoidance of intimacy as suggested by higher scores on Dismissing and Fearful attachment; and a mistrust of or guardedness around others as suggested by higher scores on Egocentricity and Insecure Attachment (BORRTI) and higher scores on Fearful and Dismissing attachment. In terms of what might be considered their representations of self or their model of self, this may be reflected in a dependence on others for validation as suggested by lower scores on Secure attachment and higher scores on Fearful attachment; entering into relationships as a search for security rather than because of an enjoyment of autonomous others, as suggested by higher scores on Insecure Attachment (BORRTI); painful interpersonal relationships and sensitivity to rejection as suggested by higher scores on Insecure Attachment (BORRTI); the sense that others exist only in relation to oneself or a self-protective and exploitative attitude as reflected by higher scores on Egocentricity. These findings are consistent with previous theory and research exploring the relationship between child sexual abuse and attachment or object relations functioning (e.g., Alexander, 1992, 1993; Briere, 1992, 1996a, 1996b; Cole & Putnam, 1992; Elliott, 1994; Roche, Runtz, & Hunter, 1999).

Attachment and Object Relations Functioning Related to

Later Psychological Adjustment

As expected, results also generally indicated that adjustment varies as a function of relationship capacity; thus, the third hypothesis was supported. Together, attachment

and object relations functioning accounted for over 75 percent of the variation in trauma-related symptoms and approximately 80 percent of the variation in interpersonal problems. Alone, attachment accounted for over 40 percent of the variation in trauma-related symptoms and approximately 55 percent of the variation in interpersonal problems. Similarly, alone object relations functioning accounted for over 70 percent of the variation in trauma-related symptoms and over 70 percent of the variation in interpersonal problems. These high rates of shared variation suggest the possibility that interpersonal relationship capacity is in fact itself a component of adult adjustment rather than a predictor. Although it is conceivable that this is indeed the case, from a theoretical perspective, attachment and object relations functioning should developmentally precede adult adjustment. However, it is impossible to disentangle the sequence of the development of relationship capacity and adjustment when they are measured contemporaneously; longitudinal research would be helpful in this regard.

It appears that Cole and Putnam's (1992) theory that the effect of intrafamilial abuse is most pronounced in the domain of self functioning applies to survivors of child sexual abuse in general. Child sexual abuse violates a child's basic beliefs about safety, trust, and boundaries in interpersonal relationships; this likely disrupts the child's evolving internal representations of the self and others. Child sexual abuse, whether ongoing or having ceased, may cumulatively impact the development of internal representations which continues to be an important task throughout childhood, adolescence, and early adulthood (Cole & Putnam, 1992; see also Ainsworth, Bell, and Stayton, 1974; Harter, 1983). The implications of this impact on interpersonal

representations are further discussed below in the section titled *Implications for Psychotherapy*.

The Mediational Model

The pattern of results support a model of relationship capacity as a mediator between child sexual abuse and psychological adjustment; thus, the fourth hypothesis is supported. When this model was tested, it was demonstrated that the relationship between child sexual abuse and psychological adjustment could be accounted for by the variation in interpersonal relationship capacity. This suggests that internal representations may be a means by which the impact of child sexual abuse affects later psychological adjustment. Both combined and separately, attachment and object relations functioning mediated the relationship between child sexual abuse and adjustment when trauma-related symptoms and interpersonal problems were considered jointly. These findings are consistent with previous research examining attachment as a mediator between child sexual abuse and trauma-related symptoms (Roche, Runtz, & Hunter, 1999).

When the separate components of each construct in the model were considered, attachment mediated the relationship between child sexual abuse and trauma-related symptoms and also mediated the relationship between child sexual abuse and interpersonal problems. Object relations functioning mediated the relationship between child sexual abuse and trauma-related symptoms; to a lesser extent, it mediated the relationship between child sexual abuse and interpersonal problems. Specifically, child sexual abuse remained a significant predictor of interpersonal problems when object

relations functioning was accounted for, although the value of alpha increased to the .05 level. Theoretically, it is not clear why attachment would mediate this relationship more strongly than object relations functioning. However, these results do speak to the potential value of investigating the mediational model separately for attachment and object relations, at least as measured by the RQ and BORRTI. It may be that conceptual differences that are not yet understood explain this difference. However, it also seems likely that a measurement issue is involved, in particular because of the inconsistency of results when the variance accounted for by the RQ and the BORRTI are partialled from each other.

Because the constructs of interpersonal relationship capacity and psychological adjustment were understood as consisting of separate (although related) components, a complete analysis of the data involved partialing one component of a construct from the other component of that construct, as well as examining the relationship of unique components of each construct to the unique components of the other construct for the various analyses. Given the need to also partial the constructs of child sexual abuse and adjustment from each other in order to test the central mediational model, this made for a somewhat complex set of results and produced a few exceptions to the overall pattern of results discussed above. These exceptions are reviewed below.

In terms of child sexual abuse predicting trauma-related symptoms, overall symptoms remained significantly predicted by a history of child sexual abuse when interpersonal problems were accounted for; however, some individual TSI scales (Depression, Intrusive Experiences, and Dissociation) were no longer significantly

predicted by a history of child sexual abuse. It is possible that this is due to the fact that elevations on these scales are related to problems in interpersonal relationships and therefore share variance with the IIP; however, this explanation would not account for the fact that Defensive Avoidance and Sexual Concerns remain significantly predicted, as these too appear to have relationship implications. Similarly, in terms of child sexual abuse predicting interpersonal problems, overall problems remained significantly predicted by a history of child sexual abuse; however the individual IIP scales were no longer significant.

With regard to child sexual abuse predicting relationship capacity, the exception to the pattern was that when the variance attributable to attachment was accounted for, the variance in object relations functioning that remained was not predicted by a history of child sexual abuse (whereas when object relations functioning was accounted for, the variance in attachment that remained was predicted by a history of child sexual abuse). It could be that, in contrast to the BORRTI, the four category measure of attachment represents more specifically the dimensions of internal representations by explicitly attempting to measure both models of the self and others. In contrast, perhaps when this variance is accounted for, what remains of the object relations measure is less reliably predicted. However, this interpretation is questionable, given results from other analyses are contradictory in this regard (such as prediction of trauma-related symptoms by attachment with object relations functioning accounted for, described below).

In terms of interpersonal relationship capacity predicting adjustment, the exception to the pattern was alluded to above. Although attachment predicted both

trauma-related symptoms and interpersonal problems, and attachment with object relations functioning accounted for predicted each of the components of adjustment with the other measure accounted for, attachment with object relations functioning accounted for did not predict scores on the TSI and results were the same when considered independent of child sexual abuse. Again, this is difficult to explain theoretically, and may be related to the properties of the relationship capacity measurement instruments.

When considering the mediational model, no exceptions to the model were noted based on partialing one component from the other for either the relationship capacity or adjustment constructs. As noted above, however, the relationship between child sexual abuse and interpersonal relationship problems was found to be less strongly mediated by object relations than by attachment, and less strongly by object relations functioning with attachment accounted for than by attachment with object relations functioning accounted for.

Due to the fact that results evaluating the unique contribution of attachment and object relations functioning for the various parts of the mediational model examined here were contradictory, additional investigations into the nature of the similarities and differences between the constructs of attachment and object relations functioning would be of assistance, as would a more in-depth evaluation of both measures' psychometric performance. In particular, although much research has utilized the RQ, little investigation of the psychometric qualities of the BORRTI appears to have been completed, other than by the author of the scale, and would be of considerable value.

Strengths and Limitations of the Current Study

One of this study's strengths, in contrast with the previous Roche, Runtz, and Hunter (1999) study and with many studies in the area, is that this study used an interview methodology in addition to collecting self-report data about adjustment. It was considered important to gather ample detail about the child sexual abuse experience (and in many cases, multiple experiences) in order to both make an accurate determination of which group participants would be placed in and to provide participants with a forum to have their experiences accurately heard. Previously, it had become clear that although self-report measures of adjustment were well-established, using a self-report measure for the collection of abuse data was in many cases inadequate for capturing a woman's experience, and was at times confusing to participants. Some participants in this study commented on the fact that it felt good to talk with someone about what had happened to them and that they believed that the interviewers appeared to want to understand their experiences.

In addition, questions about the context surrounding the abuse were included in inquiries about each child sexual abuse experience; thus, it was also possible to collect accurate and detailed information about specific aspects of the abuse experience such as the age of onset of abuse, the age difference between the victim and perpetrator, the nature of the behaviors, and the number and length of incidents.

In addition to the comprehensiveness of the information provided by the interview, data was independently re-coded and checked for a portion of records in an attempt to assure reliability. A portion of the self-report measures were also re-coded

and checked and also appeared to be reliable, with high reliability coefficients found in all instances where they could be computed. The mean alpha coefficients for the TSI and IIP were .87 and .86, respectively and the alpha coefficient for the PDS symptom items was .94. Except for the Relationship Questionnaire, the measures used in this study have been developed for use with clinical samples. Results from this study therefore support the contention that they might be useful tools for assessing the psychological adjustment and therapy progress of child sexual abuse survivors.

With regard to the BORRTI, it is more difficult to assess the performance of this measure. Although the BORRTI in many ways performed as expected, it was not possible to evaluate the reliability of the scales. This was due to the fact that insufficient information is available in the test manual to independently compute scale values. Instead, values are provided only by the computer scoring program developed by the publisher. In addition, whether the authors have validly measured object relations phenomena via an objective true-false measure is unclear. Unlike attachment theory which has focused mostly on observable behavior and conscious thoughts, object relations theory has focused less on observable behavior and has explored both conscious and unconscious aspects of the representational world, focusing in particular on the affective sphere of mental representations. These unconscious aspects are seen to reflect fundamental needs or fantasies and early, idiosyncratic constructions of self and others and are considered to predominate in severe psychopathology. Whereas attachment measures have been based on empirical observation of children and extension to adulthood, object relations measures, like the theory itself, rest largely on

inferential connections between childhood and adult behavior (Fishler, Sperling, & Carr, 1990). Given these facts, it may be difficult to tap the wide range of rich yet elusive object relations concepts via research, especially using objective-self report measures. In contrast, projective assessment of object relations has undergone greater development (Fishler, Sperling, & Carr, 1990) and has often been valued as a means of circumventing defenses and perhaps accessing material not fully in awareness. Although the time demands of using projective measures such as the Rorschach in research are significant and the training required for scoring is considerable, it would be of great interest to compare and contrast alternate conceptions of object relations functioning as measured by these two approaches and to examine their relationship to a history of child sexual abuse. The BORRTI, as well as other measures based on a “snapshot” of functioning, may also be somewhat limited in terms of having an ability to tap object relations dynamics that can be considered process-oriented relative to the more static description of relationship styles on the RQ.⁷

The sample in this study is also a strength in many ways. Because it was a sample of women from the community, including clinical settings, it may more fully represent the experience of survivors of child sexual abuse than a student sample. Although the sample’s educational level was fairly high (with only 21 % of the sample completing high school or less), in other ways the sample was heterogeneous. A range

⁷ There is debate in the attachment literature about whether attachment style is relatively consistent across relationships or specific to particular relationships. Nonetheless, however, the emphasis appears to remain more on the content of attachment styles than on the process of evolving working models.

of ages, incomes, occupational statuses, relationship statuses, and sexual orientations were represented.

Although this sample may better represent the experience of child sexual abuse survivors, as discussed above, it seems likely that it may less accurately represent the experience of non-abused women in general. Because the recruiting materials described some of the experiences of interest to the researchers, this may have led some women with no such experiences or difficulties to decide not to participate. As noted, this may have led to an attenuation of group differences; it may also have led to additional problems with generalizability that have not yet become evident.

An additional important limitation to this study is the striking lack of cultural diversity in this sample. Little of the data in this study speaks to the experiences of women from different ethnic and cultural groups who have experienced child sexual abuse. For example, although First Nations people experience a high rate of child sexual abuse, their participation in this study has been almost non-existent. Although this may in part be related to the general trend of lower research participation and differential utilization of mental health services among minority groups (Okazaki & Sue, 1995), it is also the case that it will be important to determine methods for increasing inclusiveness and encouraging participation by minority group women in future research. Currently, it is unclear to what extent this mediational model would apply to women from other ethnic or cultural backgrounds.

This study may be further limited by the use of a sample that was self-selected; it is unclear to what extent these results would generalize to a clinical and community

sample that was randomly selected. Furthermore, although it was deemed important from an ethical point of view to disclose the nature of the questions that would be asked of volunteers, it is possible that this disclosure also changed the composition of the sample. Again, it is unclear to what extent the knowledge that at least one of the foci of the study was child sexual abuse impacted potential volunteers' decision to participate.

These limitations notwithstanding, it was deemed interesting and important to collect data from a clinical and community sample rather than a student sample. Although neither random selection nor blind participation were possible, this sample drew both sexually abused and non-abused participants from the same locations and women who had experienced sexual abuse were not more likely to have come from a clinical setting. This avoids some of the problems with regard to confounding child sexual abuse status and clinical status found in studies that compare child sexual abuse samples recruited exclusively from clinical populations to non-clinical comparison samples (Newmann, Houscamp, Pollock, & Briere, 1996). Differences in sample characteristics aside, however, results from this sample in general confirm our previous results from a student sample (Roche, Runtz, & Hunter, 1999), although as noted above, the previous sample appeared to be higher functioning and in this sample no differences were found between women who had experienced intrafamilial abuse and those who had experienced extrafamilial abuse.

Another potential limitation of the study is its retrospective nature. The recall bias, whereby recollections are not entirely accurate, cannot be ruled out. However, it is important to note that this bias applies both to the abuse groups and to the non-abused

group. That is, it could be that some participants incorrectly remembered experiences of abuse that led them to be identified as sexually abused; however, it is probably equally likely that some women in the non-abused group either did not recall or chose not to disclose experiences of abuse that they had and thus were incorrectly assumed to be non-abused (Newmann, et al., 1996). Obviously, as with any retrospective study, it is impossible to know the extent to which the results are impacted by either or both of these possibilities. It is possible that the mediational model supported here would not apply equally as well to a sample that could be studied prospectively.

Implications for Psychotherapy

As noted above, the results of this study have demonstrated that attachment and object relations functioning mediate the relationship between child sexual abuse and adult psychological adjustment. Given that attachment and object relations at least play a part in the means by which child sexual abuse leads to difficulties in adjustment, interventions that focus on these areas should serve to assist the survivor in working toward healthier psychological adjustment. To some extent, any psychotherapy model informed by psychoanalytic theory, and especially those informed by object relations, self psychology, and interpersonal orientations, attempts to affect some change in mental representations of significant attachments. However, in order to fully address child sexual abuse survivors' needs, an integration of such theories with the trauma literature is necessary. Some examples of applicable approaches are described below.

Psychodynamic Theories

Object relations models, such as that of Winnicott, focus on the development of self within the caregiving environment. For Winnicott, the “good enough” caregiver is there when needed, but falls back when not needed. The caregiver creates what Winnicott called a “holding environment” - a physical and psychological space within which the infant is protected without knowing so and where the sense of self can expand and consolidate. The therapist, like the good enough caregiver, provides an environment where the client’s needs (rather than the therapist’s) are primary and an attempt is made to grasp the deeply personal nature of the client’s experience (Greenberg & Mitchell, 1983; Mitchell & Black, 1995). Winnicott saw the client as powerful in terms of self-restoration, with the ability to shape and mold the therapy situation to provide the environmental features that were missed in childhood; what is crucial in the therapeutic situation is the experience of the self in relation to the other.

Similarly, Heinz Kohut’s self psychological approach suggests that a healthy self evolves within the developmental milieu of experiences of caregivers who respond to and confirm the child’s innate sense of “vigor, greatness, and perfection”, whom the child can look up to and whom she can merge with as an image of “calmness, infallibility, and omnipotence”, and who in their openness and similarity to the child, evoke a sense of essential likeness between the child and themselves (Mitchell & Black, 1995). The therapist is helpful by being empathically responsive and by providing a nurturing context within which the client can begin to feel more seen, more real, and more internally substantial. The client may also idealize the therapist, or yearn to feel an essential similarity with the therapist. In such situations, the therapist is an extension

of the client's weakened self, through which they gradually develop a more reliable sense of well-being (Greenberg & Mitchell, 1983).

The interpersonal theory of Henry Stack Sullivan suggests that the individual's personality takes shape in an environment composed of other people with whom she is in continual interaction. For Sullivan, personality is not something that resides "inside" the individual, but rather, is made manifest only in interpersonal relationships. The therapist's role is to gather as much information as possible about the interactions in current intimate relationships in order to help the client understand patterns and therefore make different choices (Greenberg & Mitchell, 1983; Mitchell & Black, 1995).

As is clear from these brief descriptions, all of these approaches place the primary emphasis on internalizations of relationships with others and see the therapist-client relationship itself as a means to improved adjustment for the client. The therapy relationship and the transference and countertransference arising within it are seen as central aspects of therapy. Given that self and object representations may not be conscious for the survivor, it is important for the therapist to be attend to his or her own countertransference reactions; such reactions provide information about the survivors object relations functioning. Davies and Frawley (1994) propose that it is the therapist's willingness to embrace and appropriately enact these earlier patterns in the therapeutic space that allows the client to "identify, tame, and integrate" elements of her object relational world.

Davies and Frawley (1994) point out that models such as those described above underscore the relational aspects of trauma, with the trauma occurring within the intersubjective field between the child and an important other. For example, as previously described by Browne and Finkelhor (1986b), early trauma signals a betrayal of the child by one or more important early objects, which leads to a sense of abandonment. Both the real event and the unconscious meaning of the event to the survivor are emphasized.

Attachment Theory

Bowlby's approach that formed the foundation for attachment theory was also grounded in psychoanalysis, and was similar to the conceptualizations described above. He suggested that the first goal of therapy is to create a background of safety, in order to establish a secure base from which the client can explore various unhappy and painful aspects of her life, many of which she finds it difficult or impossible to think about "without a trusted companion" (Bowlby, 1988).

Other attachment theorists have built on this, suggesting that the therapist's emotional attitude fosters an atmosphere akin to Winnicott's holding environment, and includes a genuine interest in the client, reliable availability and a wish to help, tolerance of the client's painful affects, and remains non-retaliatory in the face of the full force of the client's feelings (West & Sheldon-Keller, 1994). West and Sheldon-Keller suggest that the most important goal is to help the client develop new internal representations. They suggest that new awareness derives first from the individual escaping from blind representational alleys and affective distortions of the appraisal of

attachment experiences. Subsequently, new frames of perception can be constructed.

Berman and Sperling (1994) propose that attachment theory implies five roles for the therapist. The therapist acts as a secure base, encourages exploration of relationships and expectations with significant figures, encourages the exploration of the relationship between the client and the therapist, fosters a consideration of how such internal working models may be products of childhood experiences and enables the client to recognize that these models may not be accurate or helpful in the current situation.

West, Sheldon, and Reiffer (1989) have proposed a model that they assert integrates attachment theory with psychoanalytic theory. They propose that it is important to use the cognitive and affective means of understanding the client's mental representations and modifying them (interpreting the transference, as in psychoanalytic theory). This occurs first through analysis of the relationship with the therapist and then later through exploration of the connection between this therapeutic relationship and early caretaking experiences. Then, in order to revise the internal representations the therapist and client explicitly examine the defensive operations that maintain representations. The principal transformative element, according to West, Sheldon, and Reiffer (1989) is the recognition and acceptance of representations characterized by denied and dissociated feelings of anger, yearning and loss related to attachment. The eventual aim is the active modification of representations which affects the experience and processing of current interpersonal behavior; this further modifies representations and leads to an increased ability to engage in and consciously process new interpersonal experiences along with a wider range of affects.

Attachment theory implies not only working on changing internal representations via the therapeutic relationship, but via intervention in other important relationships. This underlines the importance of group therapy approaches (particularly those that are process-oriented and/or grounded in object relations or attachment theory) for treating child sexual abuse survivors. Group therapy might serve as a means of both encountering new kinds of interpersonal relationships and solidifying the development of healthy internal representations. Couples therapy is probably also important to alter current intimate relationship patterns. Berman and Sperling (1994) point out that partner relationships are a complex interplay between the client's working models and behavior and the partner's working models and behavior which are activated by those of the client, and vice versa. From this approach, therapy with a couple focuses learning to recognize when attachment-based needs are being activated and learning to consider affects as signals.

Integrating Psychodynamic and Attachment Approaches with Trauma-Specific Treatment

Although attachment and object relations models provide useful frameworks for addressing some of the issues encountered by women who have experienced child sexual abuse, it is important to point out that such an approach is not likely to be sufficient. Although a client may experience considerable relief by exploring internal representations of the self and other, this must be in conjunction with or followed by trauma-specific work. As Davies and Frawley (1994) acknowledge, it is only by uniting

these approaches with the trauma literature that we can arrive at an integrated and comprehensive approach to treating the sequelae of child sexual abuse.

Briere has skillfully integrated the ideas from the attachment and self psychological literature with the trauma literature to form a cohesive approach to treating child sexual abuse and other forms of abuse (1992, 1996a, 1996b). Briere purports that the quality of the therapeutic relationship is equally as important as are specific abuse-focused treatment techniques and activities. The therapist must be able to withstand intense affects and transference reactions so that they may be examined and understood as a more general pattern of relating to important others rather than being avoided or buried by the client. As Briere points out, the therapist is choosing to enter into a relationship that is likely to be both intense and long-term with someone who may have difficulties with attachment, intimacy, defense, and relatedness. For this reason, the therapist must be acutely aware of his or her own countertransference reactions. Within the therapist-client relationship, the client can gain autonomy, increase trust, understand boundaries, develop social skills, and learn that abuse is not an inevitable outcome for present or future relationships. The therapist is careful to respect the client's rights for safety and not to be intruded upon. Ideally, as she is treated with respect by the therapist, she slowly develops a sense of personal identity and assumes that she has boundaries that should not be violated by others.

Briere calls his approach to therapy the "self-trauma model". He proposes that early and severe child maltreatment (including but not limited to child sexual abuse) interrupts development and the acquisition of self-capacities. Self-capacities include a

consistent sense of personal existence (identity), an awareness of the demarcation between the self and others (boundaries), the ability to engage in internal operations such as self-soothing and self-distraction that in some way allow for a reduction of negative affective states (affect regulation), and an ability to experience sustained negative affects without having to overly depend on external activities that distract, soothe, or avoid (affect tolerance). The derailed development of self-capacities is understood as occurring primarily because of a disruption in parent-child attachment and because of the trauma producing internal distress such that the child is motivated to use tension reduction strategies, avoidance, and dissociation to cope. This puts her at risk for being easily overwhelmed by affects related to trauma, and leads to further dissociation and other methods of avoiding in adolescence and adulthood. These avoidance strategies continue to preclude the development of further self-capacities. Concurrently, Briere theorizes, the person attempts to desensitize and accommodate trauma by repetitiously experiencing parts of the original event which leads to intrusive symptomatology and negatively affects self-functioning.

Briere emphasizes that in order to keep from overwhelming the client and to keep from stimulating additional avoidance responses that might impede progress, therapy must proceed slowly and carefully.. Although therapy must not be so non-demanding as to be useless, it more importantly must not be so evocative as to either harm the client or propel her toward further avoidance behaviors in an attempt to avoid being overwhelmed.

Regardless of the phase of therapy, Briere emphasizes the importance of safety and support in the therapeutic situation. Because the experience of danger and lack of support or protection is likely to have negatively impacted the development of self-resources, the therapist must attend to these issues on an ongoing basis in abuse-focused psychotherapy. Briere proposes that it is in this context of reliability, support and acceptance that the client can look inward and become aware of internal processes.

Because affect modulation and affect tolerance are seen by Briere as central for severely abused adults, he suggests that these issues be addressed in as many ways as possible. This includes skills training as well as implicit learning via the repeated evocation and resolution of distressing but manageable affect which teaches the client to become more at ease with some level of distress and to develop skills to reduce levels of arousal that become too high.

Only when it can be assumed that the client has sufficient self-capacities or when these skills have been strengthened or restored (this is assessed and revisited on an ongoing basis) does the self-trauma model address trauma directly. The steps to intervening in abuse-related trauma symptoms that may repeat at different points in the treatment (and may in later stages occur in a different order) are described by Briere as the identification of abuse-related traumatic events, gradual reexposure to the stimuli and affect associated with the memory while minimizing avoidance responses, and finally, emotional discharge and titration of affect.

Summary and Future Directions

This study has confirmed that relationship capacity, including attachment and object relations functioning, is central to our understanding of the processes by which child sexual abuse leads to long-term sequelae, including trauma-related symptoms and interpersonal problems. The results have meaningful implications for therapy with women who have experienced child sexual abuse, and support the work of leading theorists. If attachment and object relations functioning are of central importance in predicting trauma-related symptoms and interpersonal problems, the opportunity for intervention is available. Ideas for such intervention are contained in the newer psychodynamic theories such as object relations and self psychology and are also clearly elucidated and extended in Briere's abuse-focused self-trauma theory.

As previously noted in Roche, Runtz, and Hunter (1999) and discussed by such theorists, it is probably possible over time to expose the survivor in therapy to new experiences of the self and other that may help to modify her internal representations. In this way, her capacity for healthy, secure, and intimate yet autonomous relationships may be strengthened and her psychological adjustment thereby enhanced. This might include a reduction in symptoms such as depression, PTSD, dissociation, and sexual concerns and a decrease in problems in her interpersonal relationships. In fact, having fewer such trauma-related symptoms and interpersonal problems are likely to be among the goals that the client identifies as presenting problems upon commencing therapy (see also Horowitz, Rosenberg, Baer, Ureño, & Villaseñor, 1988).

The client's early attempts at "rewriting" her understanding of self and others may be a necessary foundation for facilitating the successful completion of much of the subsequent abuse-specific work that is necessary for the treatment of adult survivors of child sexual abuse. The results of this study, as well as those of the previous study by Roche, Runtz, and Hunter (1999), support the idea that sexually abused clients will likely experience considerable benefit from addressing issues related to internal representations, in particular via the therapist-client relationship, in the context of abuse-focused psychotherapy.

In addition to examining attachment and object relations using different forms of measurement (such as the attachment interview or projective measures), future research should examine additional constructs that might mediate between the experience of child sexual abuse and psychological adjustment. In addition, research should examine a variety of mediational models in diverse populations and provide the opportunity for survivor's own voices to be heard. In addition to research on models based on established theory, women's views of the processes involved in their experience of child sexual abuse, the development of their symptoms, and their attempts to heal should be examined. For this reason, supplementing research such as that described here with qualitative and small-sample research is likely to enrich our understanding.

Further, as noted above, the interactions and synergistic effects of various forms of abuse and childhood trauma must be considered. The complexity of the potential abuse data would make comprehensively evaluating mediational models such as the one examined here nearly impossible within reasonable constraints. However, it is

important to keep in mind that child sexual abuse does not occur in a vacuum, and other forms of abuse or neglect share some of the same qualities as child sexual abuse.

Similarly, other childhood experiences (such as parental conflict or separation, parental substance abuse, experiences of loss), although not necessarily traumatic in the same way as child sexual abuse, are also likely to impact on internal representations and may thus be confounded with abuse variables. Although these complexities may never be fully elucidated, it is clear that child sexual abuse is but one experience that may lead to disruptions in internal representations and to problems in adjustment.

In conjunction with abuse-specific interventions, the opportunity to change important mediating variables such as relationship capacity allows us to be optimistic that the trauma-related symptoms and relationships of women who have experienced child sexual abuse can be altered and enhanced. An understanding of attachment and object relations functioning in such particular subgroups of women, such as those who have been sexually abused, may also ultimately allow us to further refine our approaches to psychotherapy in general.

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Table 1
Trauma Symptom Inventory (TSI) Mean Scale Scores According to CSA Group^a

<u>TSI</u> <u>Scale^b</u>	NA		EA		IA		NA vs. EA/ IA (ANOVA)		EA vs. IA (ANOVA)	
	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>F</u>	<u>p</u>	<u>F</u>	<u>p</u>
AA	9.66	(6.11)	11.56	(5.03)	10.82	(5.52)	2.06	<u>ns</u>	0.24	<u>ns</u>
D	8.49	(5.50)	11.00	(6.92)	11.55	(6.07)	5.34	.01	0.12	<u>ns</u>
AI	9.64	(6.78)	10.80	(5.29)	11.24	(4.66)	1.55	<u>ns</u>	0.08	<u>ns</u>
IE	7.51	(5.59)	9.88	(6.85)	10.39	(6.46)	5.34	.02	0.10	<u>ns</u>
DA	7.90	(5.70)	11.24	(7.10)	10.84	(6.94)	7.04	.01	0.06	<u>ns</u>
DIS	7.47	(5.01)	9.64	(7.23)	10.18	(5.85)	5.15	.03	0.13	<u>ns</u>
SC	5.84	(4.70)	8.08	(6.76)	7.18	(6.02)	7.62	.01	0.37	<u>ns</u>
DSB	2.95	(5.08)	5.00	(6.04)	2.85	(4.18)	1.07	<u>ns</u>	2.56	<u>ns</u>
ISR	8.68	(6.42)	10.72	(7.06)	10.59	(5.51)	2.83	<u>ns</u>	0.01	<u>ns</u>
TRB	3.61	(4.03)	4.12	(3.63)	3.42	(3.30)	0.05	<u>ns</u>	0.49	<u>ns</u>

- a. NA = No Abuse, EA = Extrafamilial Abuse, IA = Intrafamilial Abuse.
b. Trauma Symptom Inventory (TSI) Scales: AA = Anxious Arousal, D = Depression, AI = Anger/Irritability, IE = Intrusive Experiences, DA = Defensive Avoidance, DIS = Dissociation, SC = Sexual Concerns, DSB = Dysfunctional Sexual Behavior, ISR = Impaired Self-Reference, TRB = Tension Reduction Behavior.

Table 2

Inventory of Interpersonal Problems (IIP) Mean Scale Scores According to CSA Group^a

<u>IIP</u> <u>Scale^b</u>	NA		EA		IA		NA vs. EA/ IA (ANOVA)		EA vs. IA (ANOVA)	
	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>F</u>	<u>p</u>	<u>F</u>	<u>p</u>
ASST	1.38	(0.75)	1.74	(0.77)	1.42	(0.73)	2.67	<u>ns</u>	2.48	<u>ns</u>
SOCL	1.15	(0.75)	1.53	(0.99)	1.66	(0.94)	8.26	.00	0.40	<u>ns</u>
SUBM	1.02	(0.70)	1.18	(0.67)	1.37	(0.64)	4.23	.04	0.88	<u>ns</u>
INTM	0.77	(0.57)	1.07	(0.68)	0.94	(0.45)	5.33	.02	0.79	<u>ns</u>
RESP	1.44	(0.76)	1.69	(0.94)	1.56	(0.91)	1.70	<u>ns</u>	0.60	<u>ns</u>
CONT	0.78	(0.64)	0.80	(0.49)	0.80	(0.51)	0.04	<u>ns</u>	0.01	<u>ns</u>

a. NA = No Abuse, EA = Extrafamilial Abuse, IA = Intrafamilial Abuse.

b. Inventory of Interpersonal Problems (IIP) Scales: ASST = Hard to be Assertive, SOCL = Hard to be Sociable, SUBM = Hard to be Submissive, INTM = Hard to be Intimate, RESP = Too Responsible, CONT = Too Controlling.

NOTE: p values < .001 are abbreviated as .00

Table 3

Relationship Questionnaire (RQ) Mean Attachment Style Scores According to CSA Group^a

	NA		EA		IA		NA vs. EA/ IA		EA vs. IA	
	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>F</u>	<u>p</u>	<u>F</u>	<u>p</u>
<u>RQ Style^b</u>										
SEC	4.78	(1.63)	3.76	(1.79)	3.58	(2.03)	11.25	.00	0.15	<u>ns</u>
FEAR	3.36	(1.90)	4.60	(2.06)	4.09	(2.30)	6.73	.01	0.88	<u>ns</u>
PRE	2.73	(1.90)	2.88	(1.64)	3.18	(2.21)	0.70	<u>ns</u>	0.34	<u>ns</u>
DIS	2.85	(1.70)	3.40	(1.80)	3.97	(1.72)	6.80	.01	1.55	<u>ns</u>

- a. NA = No Abuse, EA = Extrafamilial Abuse, IA = Intrafamilial Abuse.
 b. Relationship Questionnaire (RQ) Attachment Styles: SEC = Secure, FEAR = Fearful, PRE = Preoccupied, DIS = Dismissing.
 NOTE: p values < .001 are abbreviated as .00

Table 4

Bell Object Relations and Reality Testing Inventory (BORRTI) Mean T-Scores
According to CSA Group^a

	NA		EA		IA		NA vs. EA/ IA		EA vs. IA	
	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>F</u>	<u>p</u>	<u>F</u>	<u>p</u>
<u>BORRTI^b</u> <u>Scale</u>										
ALN	51.41	(8.74)	56.61	(9.91)	56.70	(9.97)	8.80	.00	0.00	<u>ns</u>
IA	51.00	(10.36)	54.91	(10.87)	55.36	(10.72)	4.30	.04	0.03	<u>ns</u>
EGC	45.55	(8.74)	50.57	(10.50)	49.58	(10.50)	6.16	.02	0.14	<u>ns</u>
SI	50.57	(9.59)	53.61	(11.97)	51.47	(10.03)	1.14	<u>ns</u>	0.55	<u>ns</u>

a. NA = No Abuse, EA = Extrafamilial Abuse, IA = Intrafamilial Abuse.

b. Bell Object Relations and Reality Testing Inventory (BORRTI) Object Relations Scales:

ALN = Alienation, IA = Insecure Attachment, EGC = Egocentricity, SI = Social Incompetence.

NOTE: p values < .001 are abbreviated as .00

Table 5

The Relationship Between Attachment Style and Trauma-Related Symptoms^a

<u>RQ</u> <u>Style^b</u>	<u>TSI Scale^c</u>									
	AA	D	AI	IE	DA	DIS	SC	DSB	ISR	TRB
SEC	-0.31	-0.36	-0.11	-0.34	-0.39	-0.41	-0.11	0.11	-0.29	0.01
FEAR	0.10	0.14	0.24	0.12	0.17	0.08	0.33	0.24	0.18	0.23
PRE	0.24	0.31	0.25	0.14	0.07	0.14	0.06	0.14	0.23	0.30
DIS	0.00	-0.04	0.02	0.02	-0.05	-0.03	-0.01	-0.04	-0.03	-0.11

- a. Table entries are univariate beta weights predicting TSI scores from RQ scores. Entries in bold are significant, $a \leq .05$.
- b. Relationship Questionnaire (RQ) Attachment Styles: SEC = Secure, FEAR = Fearful, PRE = Preoccupied, DIS = Dismissing.
- c. Trauma Symptom Inventory (TSI) Scales: AA = Anxious Arousal, D = Depression, AI = Anger/Irritability, IE = Intrusive Experiences, DA = Defensive Avoidance, DIS = Dissociation, SC = Sexual Concerns, DSB = Dysfunctional Sexual Behavior, ISR = Impaired Self-Reference, TRB = Tension Reduction Behavior.

Table 6

The Relationship Between Object Relations Functioning and Trauma-Related Symptoms^a

<u>BORRTI Scale^b</u>	<u>TSI Scale^c</u>									
	AA	D	AI	IE	DA	DIS	SC	DSB	ISR	TRB
ALN	0.09	0.48	0.01	0.38	0.38	0.29	0.19	-0.12	0.23	-0.10
IA	0.34	0.16	0.43	0.22	0.27	0.25	0.48	0.62	0.18	0.80
EGC	0.19	0.10	0.10	0.17	0.06	0.24	-0.03	-0.04	0.25	-0.11
SI	0.14	0.12	0.12	-0.06	0.05	-0.02	-0.15	-0.17	0.26	-0.13

- a. Table entries are univariate beta weights predicting TSI scores from BORRTI scores. Entries in bold are significant, $\alpha \leq .05$.
- b. Bell Object Relations and Reality Testing Inventory (BORRTI) Object Relations Scales: ALN = Alienation, IA = Insecure Attachment, EGC = Egocentricity, SI = Social Incompetence.
- c. Trauma Symptom Inventory (TSI) Scales: AA = Anxious Arousal, D = Depression, AI = Anger/Irritability, IE = Intrusive Experiences, DA = Defensive Avoidance, DIS = Dissociation, SC = Sexual Concerns, DSB = Dysfunctional Sexual Behavior, ISR = Impaired Self-Reference, TRB = Tension Reduction Behavior.

Table 7

The Relationship Between Attachment Style and Interpersonal Problems^a

<u>RQ</u> <u>Style^b</u>	<u>IIP Scale^c</u>					
	ASST	SOCL	SUBM	INTM	RESP	CONT
SEC	-0.34	-0.32	-0.18	-0.26	-0.15	0.11
FEAR	0.13	0.37	0.11	0.32	0.41	0.27
PRE	0.09	0.16	0.23	0.11	0.06	0.19
DIS	-0.11	0.05	0.21	0.12	-0.08	0.08

- a. Table entries are univariate beta weights predicting IIP scores from RQ scores. Entries in bold are significant, $\alpha \leq .05$.
- b. Relationship Questionnaire (RQ) Attachment Styles: SEC = Secure, FEAR = Fearful, PRE = Preoccupied, DIS = Dismissing.
- c. Inventory of Interpersonal Problems (IIP) Scales: ASST = Hard to be Assertive, SOCL = Hard to be Sociable, SUBM = Hard to be Submissive, INTM = Hard to be Intimate, RESP = Too Responsible, CONT = Too Controlling.

Table 8

The Relationship Between Object Relations Functioning and Interpersonal Problems^a

<u>BORRTI</u> <u>Scale^b</u>	<u>IIP Scale^c</u>					
	ASST	SOCL	SUBM	INTM	RESP	CONT
ALN	0.00	0.43	0.30	0.30	0.20	0.10
IA	0.03	0.12	0.28	0.25	0.30	0.44
EGC	0.26	0.08	0.04	-0.02	0.14	0.09
SI	0.44	0.35	-0.03	0.20	0.20	-0.08

- a. Table entries are univariate beta weights predicting IIP scores from BORRTI scores. Entries in bold are significant, $\alpha \leq .05$
- b. Bell Object Relations and Reality Testing Inventory (BORRTI) Object Relations Scales:
ALN = Alienation, IA = Insecure Attachment, EGC = Egocentricity, SI = Social Incompetence.
- c. Inventory of Interpersonal Problems (IIP) Scales: ASST = Hard to be Assertive, SOCL = Hard to be Sociable, SUBM = Hard to be Submissive, INTM = Hard to be Intimate, RESP = Too Responsible, CONT = Too Controlling.

	Positive Model-of-Self (Low Dependence)	Negative Model-of-Self (High Dependence)
Positive Model-of-Other (Low Avoidance)	SECURE Comfortable with intimacy & autonomy	PREOCCUPIED Preoccupied with relationships
Negative Model-of-Other (High Avoidance)	DISMISSING Dismissing of intimacy Counter-dependent	FEARFUL Fearful of intimacy Socially avoidant

Figure 1. Relationship Questionnaire (RO) Four Category Model of Attachment
(Bartholomew, 1990).

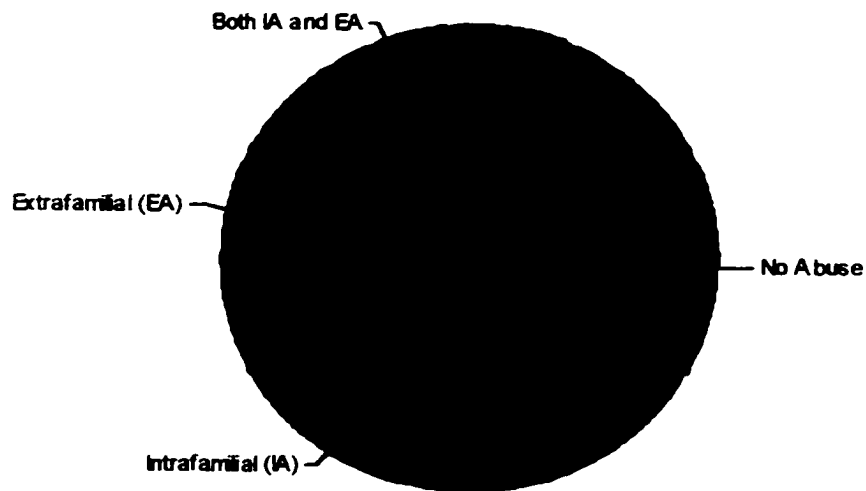


Figure 2. Proportions of the Sample Experiencing No Abuse, Extrafamilial Abuse, Intrafamilial Abuse, or Both Extrafamilial and Intrafamilial Abuse.

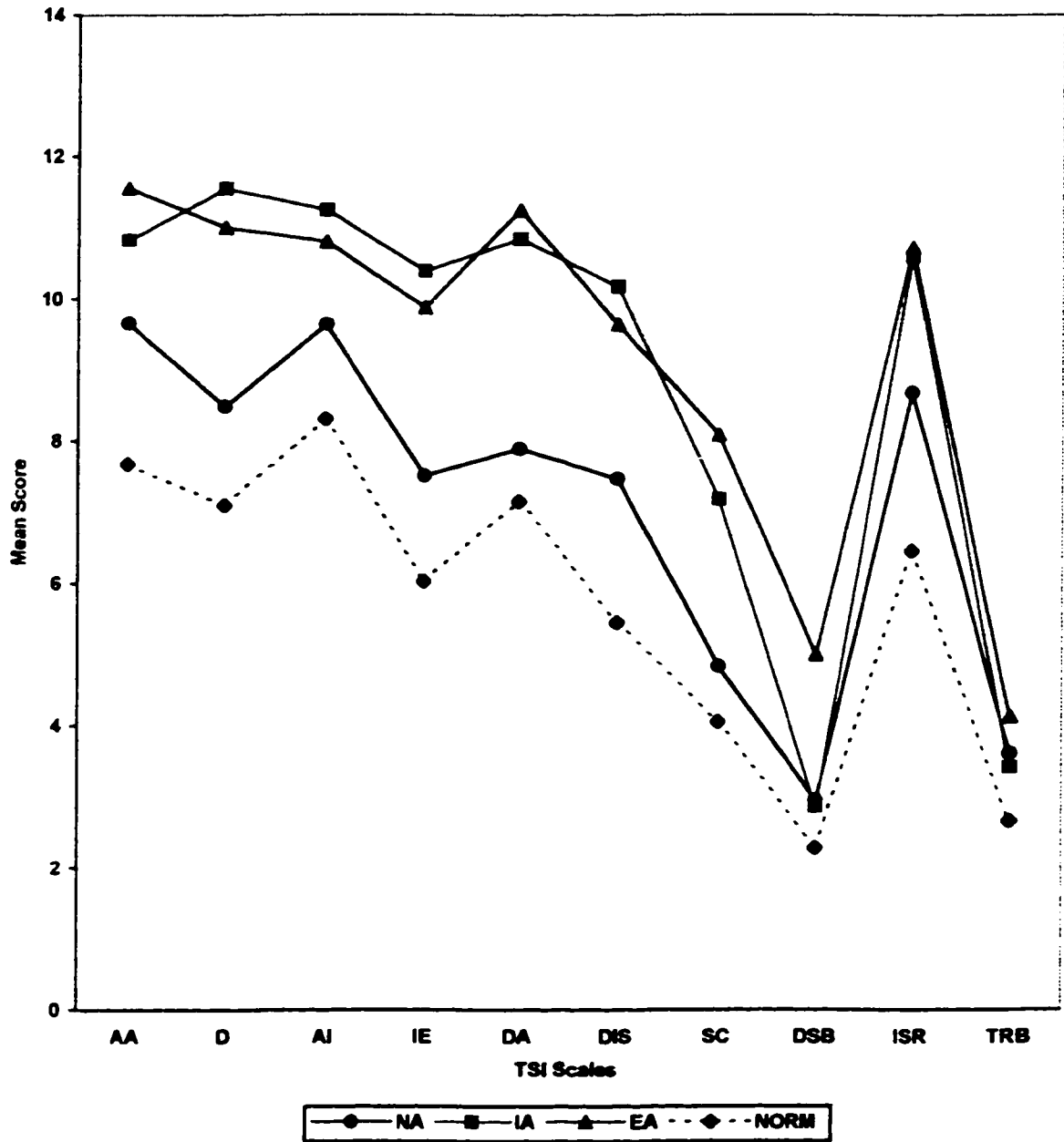


Figure 3. Profiles on the Trauma Symptom Inventory (TSI) for Women Who Have Experienced of No Abuse (NA), Intrafamilial Abuse (IA), and Extrafamilial Abuse (EA), as Compared to the TSI Normative Sample of Women ages 18 to 54 (NORM).

NOTE: TSI scales: AA = Anxious Arousal, D = Depression, AI = Anger/Irritability, IE = Intrusive Experiences, DA = Defensive Avoidance, DIS = Dissociation, SC = Sexual Concerns, DSB = Dysfunctional Sexual Behavior, ISR = Impaired Self-Reference, TRB = Tension Reduction Behavior.

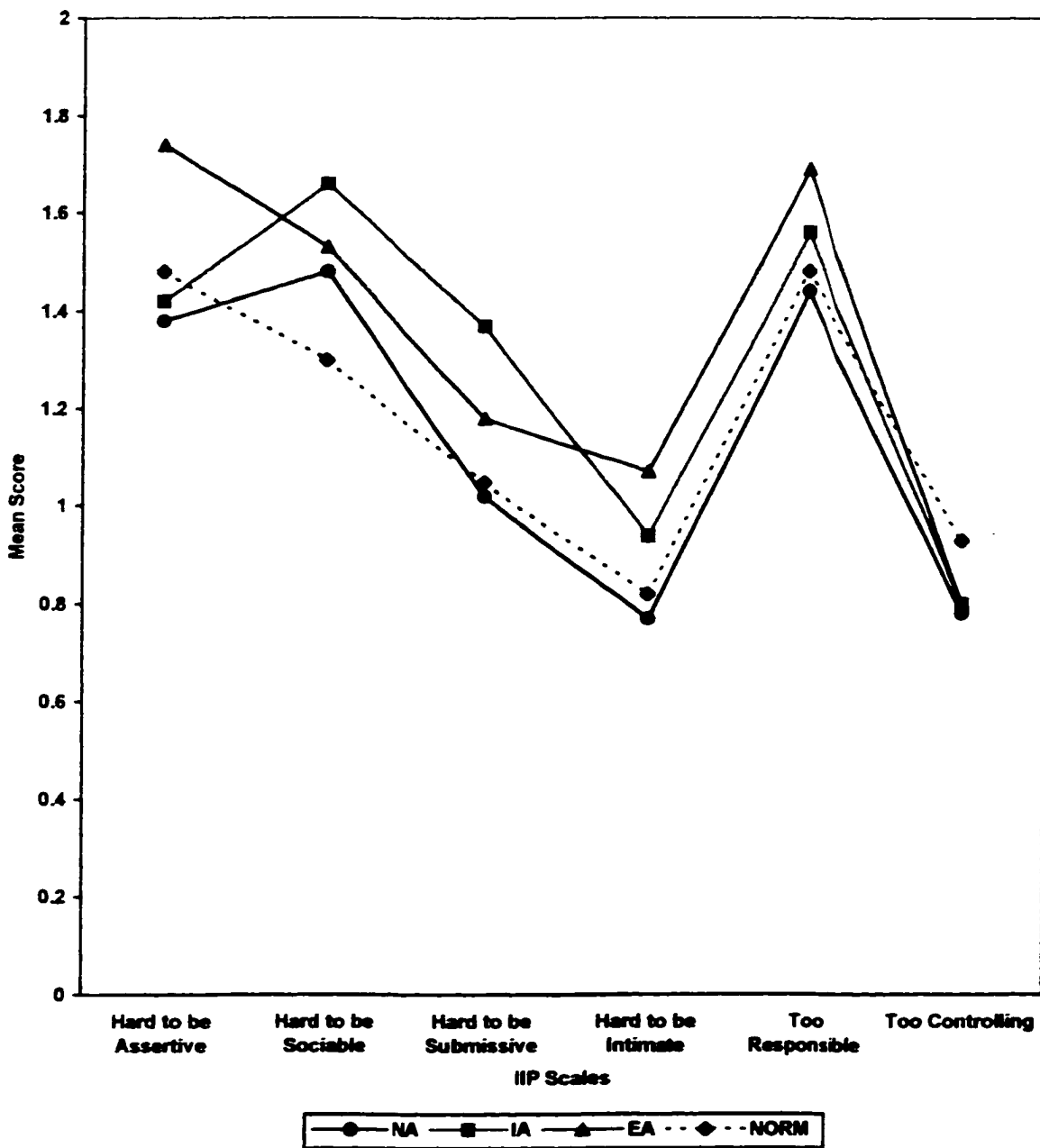


Figure 4. Profiles on the Inventory of Interpersonal Problems (IIP) for Women Who Have Experienced No Abuse (NA), Intrafamilial Abuse (IA), and Extrafamilial Abuse (EA), as Compared with a Student Sample (NORM).

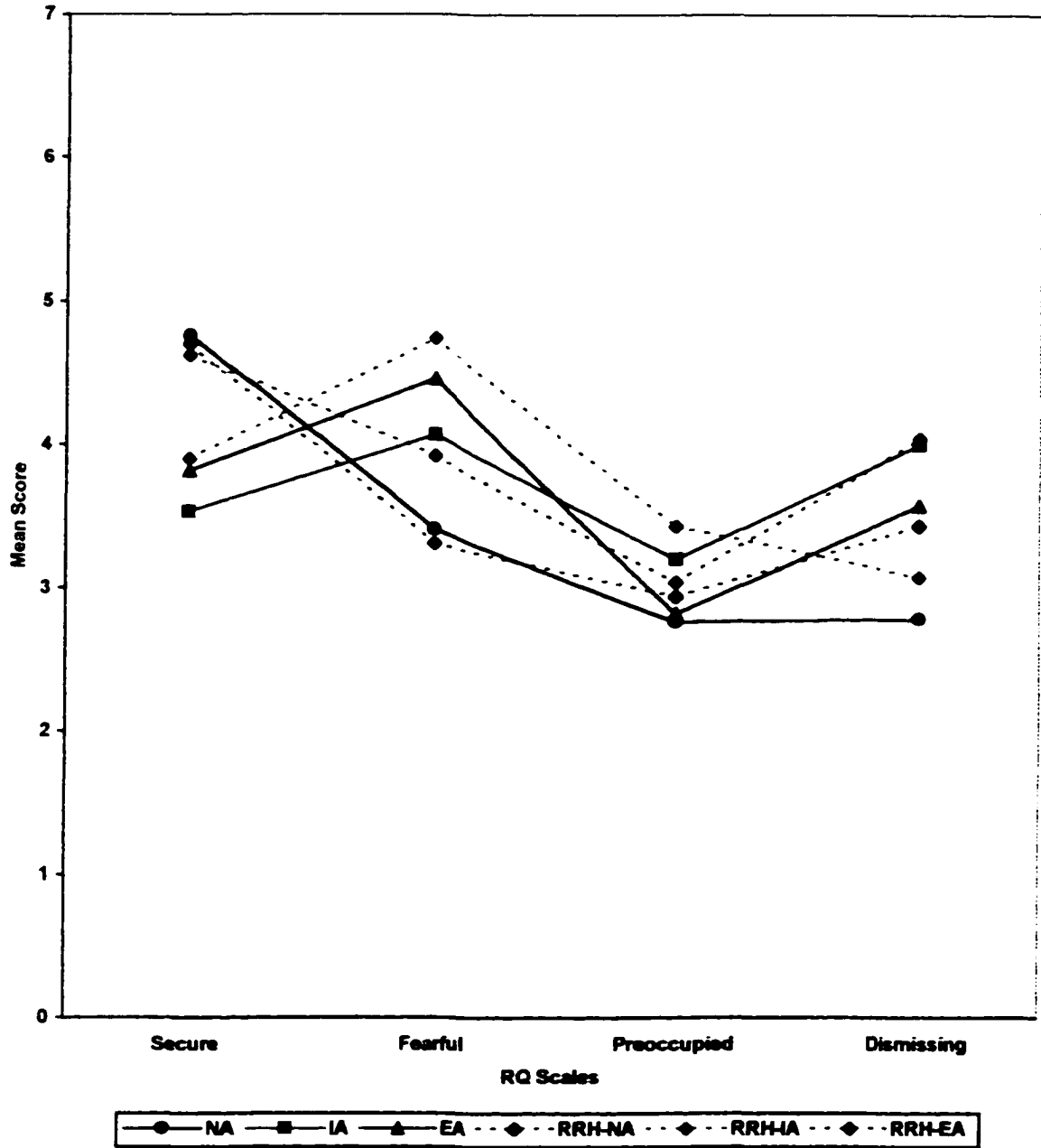


Figure 5. Profiles of the Relationship Questionnaire for Women Who Have Experienced No Abuse (NA), Intrafamilial Abuse (IA) and Extrafamilial Abuse (EA), as Compared with the Same Three Groups from Roche, Runtz, & Hunter (1999).

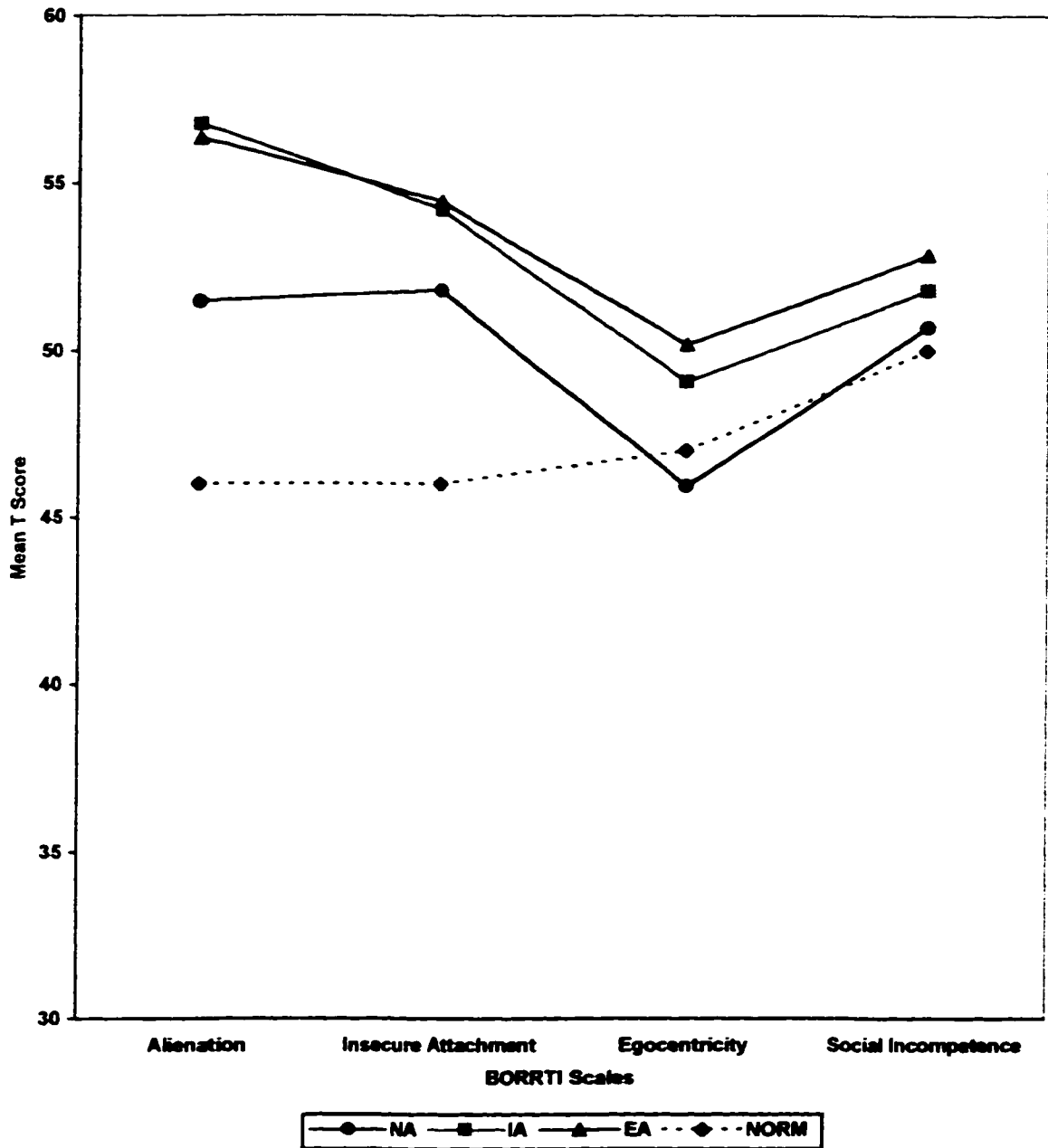


Figure 6. Profiles on the Bell Object Relations and Reality Testing Inventory (BORRTI) for Women Who Have Experienced No Abuse (NA), Intrafamilial Abuse (IA) and Extrafamilial Abuse (EA), as Compared to the BORRTI Normative Sample of Community Active Adults (NORM).

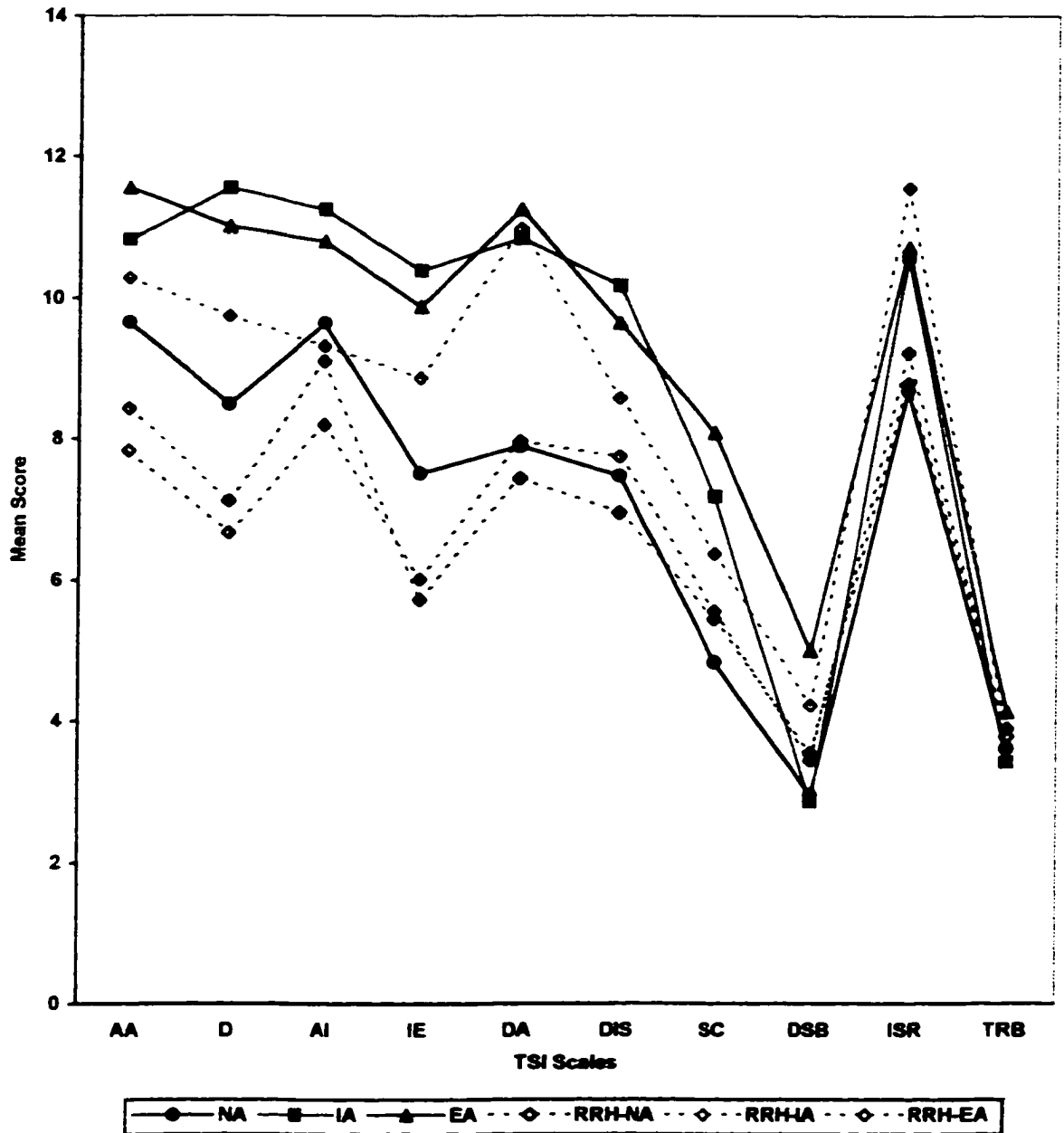


Figure 7. Profiles on the Trauma Symptom Inventory (TSI) for Women Who Have Experienced of No Abuse (NA), Intrafamilial Abuse (IA), and Extrafamilial Abuse (EA), as Compared to the Student Sample in Roche, Runtz, & Hunter (1999).

NOTE: TSI scales: AA = Anxious Arousal, D = Depression, AI = Anger/Irritability, IE = Intrusive Experiences, DA = Defensive Avoidance, DIS = Dissociation, SC = Sexual Concerns, DSB = Dysfunctional Sexual Behavior, ISR = Impaired Self-Reference, TRB = Tension Reduction Behavior. Roche, Runtz, & Hunter (1999) groups are also No Abuse (RRH-NA), Intrafamilial Abuse (RRH-IA), and Extrafamilial Abuse (RRH-EA).

Appendix A

Letter to Professionals

February 27, 1998

Dear Doctor/Clinician,

We are a Registered Psychologist and Doctoral Candidate in Clinical Psychology from the University of Victoria, and are conducting a study of women's health and relationships. We hope to enlist your support for our project, described below.

Our project, the "Women's Health and Relationships Study", looks at a variety of current and historical factors (including victimization experiences) that impact on women's current physical and mental health and interpersonal relationships. We are interested in interviewing women age 18 or older, of any marital status, income level, or sexual orientation. Following a telephone screening interview, participation will involve the completion of a questionnaire as well as participation in a detailed interview with a highly trained interviewer. Participants will receive a small cash payment for their time and, if they wish, their names will be entered in a cash draw at the end of the study.

We intend to recruit participants from a clinical and community sample. Although gathering data for applied research such as ours can be challenging, we hope that our results will prove useful to people such as yourself who work with women in our community. Your co-operation will be invaluable in allowing us to recruit a sample that is as diverse and representative as possible.

No counseling will be provided by the interviewer, but a list of referrals will be provided to all participants. Every effort will be made to protect the psychological well-being of participants, and interviews will be discontinued in the unlikely event that the participant experiences significant distress.

We respectfully request that you post the enclosed poster & brochures in your waiting room or other area where your adult female clients/patients will be able to view them.

If you should have questions about the study, or about the materials we have provided, please call Diane Roche at our office (472-4294) or Marsha Runtz (721-7546). In advance, we thank you very much for your assistance and appreciate your support. When we complete the study, we would be more than happy to provide you with a summary of our findings upon your request (call 472-4294).

Sincerely,

Diane Roche, M.A.
Doctoral Candidate in Clinical Psychology

Marsha Runtz, Ph.D., R.Psych.
Assistant Professor of Psychology
Registered Psychologist #1076

Recruiting Poster

WOMEN'S HEALTH & RELATIONSHIPS STUDY

*Diane Roche, M.A. & Marsha Runtz, Ph.D.
Department of Psychology
University of Victoria*

RESEARCH PARTICIPANTS NEEDED

\$20 Honorarium Paid to Participants

*Please call (24 hours):
Diane Roche (250) 472-4294*

*For more information, please take a brochure
(see below) or call us anytime.*

Thank you for considering our study!

Recruiting Brochure

WE NEED YOU TO
PARTICIPATE IN OUR
STUDY ON WOMEN'S
HEALTH AND
RELATIONSHIPS!

WHY PARTICIPATE?

- Your participation will allow us to better understand women's health and relationships, and may benefit other women with experiences similar to yours.
- We will pay you \$20 for your time, and if you wish, we will enter you in a cash draw at the end of our data collection. (Approximately a 3 in 100 chance of winning!):
 - ★ \$250 grand prize
 - ★ \$150 second prize
 - ★ \$100 third prize



WOMEN'S HEALTH &
RELATIONSHIPS STUDY



WOMEN'S HEALTH
& RELATIONSHIPS
STUDY

TO PARTICIPATE, OR
FOR FURTHER INFO:

Diane Roche, M.A.
Department of Psychology
University of Victoria
P. O. Box 3050
Victoria, BC
V8W 3P5

Phone: (250) 472-4294
Fax: (250) 721-8929
E-mail: droche@uvic.ca

Diane Roche, M.A.
& Maryse Runtz, Ph.D.

Department of Psychology
University of Victoria

RESEARCH
PARTICIPANTS
NEEDED

\$20 Honorarium
Paid to Participants

Please call (24 hours):
(250) 472-4294

WHO CAN PARTICIPATE?

- Women 18 years of age or older, of any marital status, educational or income level, or sexual orientation
- Women with a wide variety of life experiences, including (but not limited to) a previous history of child sexual, physical or emotional abuse, physical or psychological concern, or other challenging life experiences in childhood or adulthood.
- Women who have none of the life experiences listed above are also invited to participate.

WHAT DOES MY PARTICIPATION INVOLVE?

- Attending an individual research session at the University of Victoria.
- Completing questionnaire measures (1 to 2 hours) about:
 - a) current health and health history,
 - b) family environment,
 - c) early sexual experiences,
 - d) relationships:
- Participating in a 45 min to 1 hour individual interview about the same topics.
- Total time commitment for participation in the study is approximately 2 to 3 hours.

WHAT ELSE SHOULD I KNOW?

- Some of the questions may be sensitive and personal in nature.
- I have the right to withdraw my participation at any time, and would still receive payment just for attending the session.
- This is a research study, so no counselling will be provided by the interviewer.
- Information gathered in this study will be kept confidential, and will be treated with the utmost respect for you and your privacy.

Appendix B

Telephone Screening Form

WOMEN'S HEALTH AND RELATIONSHIPS STUDY – TELEPHONE SCREENING & SIGN-UP

Date: _____ Name: _____ Screened By: _____

"This is _____ from the Women's Health and Relationships Study at UVic. We received your call about participating in the study. Do you have just a few minutes right now? Before talking more about participating, I have a few questions that we need to ask everyone. This is just in order to make sure that the study is appropriate for people right now. The information gathered here is confidential, with a few unlikely exceptions, that I need to tell everyone about. I am required to break confidentiality only if you tell me that you plan to hurt yourself or someone else, that a minor child is being harmed, or in the incredibly unlikely event that our notes were ever subpoenaed in a court case, although this has not ever happened in a research study, as far as we know. [explain that this applies more to clinical settings, and is irrelevant anyway, since their data, other than the questions here, will be identified only by number so nobody could really ask us for it anyway] Do you have any questions?"

1. "Have you been an inpatient in a psychiatric hospital during the last year?" YES NOIF SCREEN #1 IS YES:a) "Are you currently an inpatient?" YES NOIF YES, EXCLUDE FROM STUDY (Invite to call again once discharged).b) "Do you currently, or have you recently experienced hallucinations or delusions, or have you been told that you do? When did this last happen?" _____ YES NOIF YES IN LAST 6 WKS., EXCLUDE FROM STUDY (Invite to call again if subside for 6 wks.)2. "Do you currently, or have you recently engaged in self-harming behaviour (explain if necessary – cutting, burning, suicide attempts)?" When did this last happen? _____ YES NOIF YES IN LAST 6 WKS., EXCLUDE FROM STUDY (Invite to call again if resolved for 6 wks.)3. "Have you been involved in alcohol or drug treatment in the past year?" YES NOIF SCREEN #3 IS YES:a) "Are you currently, or have you recently been in treatment? (if yes) What kind of treatment?" YES NOIF RESIDENTIAL OR DETOX IN LAST 6 WKS., EXCLUDE FROM STUDY (Invite to call back when treatment has been complete for 6 wks.).DISPOSITION: Reject Accept (Provide info below, check to indicate participant has been told)

General Information, mostly from brochure (see script):

- help understanding women's lives \$20 paid, enter in draw if want (\$250, \$150, \$100)
 Session at UVic – 1 hour interview, 2 hrs of filling out questionnaires; about 3 hrs total
 questions about a wide variety of topics such as current health, mental health, health history, family environment, early sexual experiences, relationships questions are sensitive and personal right to refuse to answer a question or to withdraw without losing the \$20 info gathered for study kept confidential, other than limits outlined above
 data identified only by a number info provided will not be used for any other purpose, e.g., in a clinical setting
 would not be interviewed by a past or current therapist or someone you know no counselling part of the interview
 Any questions?

PARTICIPANT'S DECISION: Want to participate Choose not to participate Appointment scheduled? Needs map? yes no If yes, get address: Interviewer notified? _____

Telephone Screening Rejection Script

WHRS Interviewers:

Here is a script that you may follow if the occasion arises that you need to reject someone whom you screen. Obviously, substitute whatever reason for rejection is appropriate.

Because you ...are right in the middle of drug/alcohol treatment... are right in the middle of inpatient treatment...have recently been having such difficulties (for suicide/self-harm)..., we would prefer if you wait a little while before volunteering for the study. Some of the questions can be upsetting, and we would like you to take a bit more time before participating. (If you do not engage in any further self-harm and) If you would still like to participate, please give us a call in about _____ (indicate AT LEAST 6 weeks post-treatment, after release from EMP, or after last episode of self-harm). We hope you understand our need to try to ensure that participating is not harmful for you at this time. We are still interested in having you participate, so please call back in _____ if you are still interested.

Remember, the main idea is that people are out of detoxification/residential treatment for 6 weeks prior to participating, and have not actively engaged in self-harming behaviours or suicide attempts or had delusions/hallucinations in that time. I would suggest rounding up a bit, & saying (e.g. if it is May 1), give us a call after about the middle of July.

Please tell them that if they have further questions, I will talk to them, and feel free to forward any troublesome or questionable cases to me for me to talk to. Better safe than sorry.

Appendix C

Participant Information Sheet**WOMEN'S HEALTH & RELATIONSHIPS STUDY
PARTICIPANT INFORMATION SHEET**

- Your participation will involve approximately 2 to 3 hours of your time, including 1 to 2 hours spent completing questionnaires, and a 45 minute to 1 hour individual interview. Topics include current health and health history, family environment, early sexual experiences, and relationships.
- You will be paid a \$20 honorarium to thank you for your time.
- If you wish, we will enter you in a draw for prizes of \$250, \$150, & \$100, to be drawn after 100 participants have completed the study.
- Some of the questions may be sensitive and personal in nature.
- You have the right to refuse to answer a question, or to withdraw your participation in the study at any time (without losing your \$20 payment).
- Information provided by you in this study will be kept confidential, except for the following situations, in which we are required to break confidentiality:
 - You tell us of your intent to seriously harm yourself or others,
 - You tell us about a minor who is being abused,
 - Our interview notes are subpoenaed in a court case (this is highly unlikely).
- If you have been, are currently, or in the future are a client of any of the researchers, information provided as part of this study will be kept confidential, and will not be used for clinical purposes.
- This is a research study, so no counseling will be provided.

Informed Consent Form

**WOMEN'S HEALTH & RELATIONSHIPS STUDY
CONSENT FORM**

I understand that this research project is a study of women's health concerns and women's relationships, and as such, will inquire about interpersonal relationships and about a variety of physical and psychological health concerns that many women may have. My participation involves answering questions on a self-report questionnaire and in an individual interview. I am aware that some of the questions are personal in nature, and may include questions about sexual and medical history.

I understand that my participation is completely voluntary, and that I may withdraw from the study at any time, without explanation. I am also aware that if I do withdraw from the study, I will still obtain compensation for my participation.

I have been assured that my responses are completely confidential, and that at the end of the study, my name will not be linked to my responses in any way. My responses will be identified by number only, and this coded number on the questionnaire cannot identify me. I have been informed not to put my name on any materials. I have also been asked to provide this consent form to the researcher prior to filling out the questionnaires. The consent form will not be stored with the responses I provide. I have been told that all research materials will be kept in a secure/locked room, and that only members of the research team will have access to this information.

I have been given the *Participant Information Sheet*. At the end of my participation I will receive additional written information about the purposes of the study. Due to the personal and sensitive nature of this study, I will also be provided with the telephone number of the researchers and of a community agency where I can obtain appropriate mental health referrals if I wish to, should I have any concerns arising as a result of this study. In addition, a more extensive list of community agencies is available.

Having been informed of the nature of this study and the extent of my participation, and having been assured of the confidentiality of my responses, I willingly consent to participate in this study as denoted by my signature at the bottom of this page.

Researchers:

Diane Roche, M.A.
Psychology Department
University of Victoria
Rm. 58 L-Hut
(250) 472-4294

Dr. Marsha Runtz
Psychology Department
University of Victoria
A194 Cornett Bldg.
(250) 721-7546

Signature: _____

Witness: _____

Date: _____

Appendix D

WHRS Interview (Abridged)

Date: _____ Q. Order: 1 2 Code Number: _____

Recruiting source/place participant saw brochure (*be specific*): _____PART ONE: DEMOGRAPHICS*"I'm going to start with some questions about basic demographics".*

1. How old were you on your last birthday? (*age in years*)
2. What is your marital status?
 1. single, never married
 2. married
 3. living with partner
 4. separated
 5. divorced
 6. widowed
3. (If 1, 4, 5, or 6) Are you in a serious romantic relationship?
no = 0 yes = 1
4. How many serious romantic relationships have you had? _____
5. How long was your longest serious romantic relationship? _____
6. What is your sexual orientation?
Heterosexual = 1 Homosexual = 2 Bisexual = 3 Other = 4
If = 4, explain _____
7. Do you have children? no = 0 yes = 1 (If yes) How many? _____
8. Are you a Canadian citizen?
yes = 1
no = 0 (If no) What is your citizenship? _____
9. What is your race? (*Write in specifics; if category unclear use other; do not read list*)
Caucasian = 1 First Nations = 2 Black = 3
Asian = 4 Indian = 5
Mixed = 6 (Specify) _____ Other = 7 (Specify) _____
10. What ethnic or cultural group do you most closely identify with? (*Not incl. only 'philosophical' ethnic identification, with no family ties - eg I like Eastern philosophy*)

11. What level of education have you completed?
(*get enough information for Hollingshead Education score*)

12. What is your occupation?
(get enough information for Hollingshead Occupation score)
** code last occupation, if retired*

13. What is your current employment status? *(use list only to clarify)*

1. full-time student
2. employed full time
3. employed part time
4. homemaker
5. unemployed
6. disabled *(specify nature of disability)* _____
7. retired
8. other *(specify)* _____

22. What is your current household gross income per year?
(explain if needed → amount earned by all contributing members of the household)

1. less than \$10,000
2. 10,000 – 19,999
3. 20,000 – 29,999
4. 30,000 – 39,999
5. 40,000 – 49,999
6. 50,000 – 59,999
7. 60,000 – 69,999
8. 70,000 – 79,000
9. 80,000 or more

41. Have you ever been in therapy or counseling? *(code each experience)*

1. yes → How many times have you been in therapy or counseling? _____
0. no

If Q. 41 > 4, I'd like you to tell me about the 4 experiences in therapy or counseling that you feel were most important.

For each experience, please tell me when it was, who it was with, for how long & how many you sessions you attended, & how helpful you found it. (read scale)

1 = not helpful 2 = a bit helpful 3 = somewhat helpful 4 = very helpful

a. when: _____ professional: _____
 duration _____ # sessions _____ how helpful? _____

b. when: _____ professional: _____
 duration _____ # sessions _____ how helpful? _____

c. when: _____ professional: _____
 duration _____ # sessions _____ how helpful? _____

d. when: _____ professional: _____
 duration _____ # sessions _____ how helpful? _____

PART FOUR: EARLY SEXUAL EXPERIENCES/ABUSE

"It is now generally recognized that some people have sexual experiences as children and while they are growing up. I would like to ask you about some such experiences you might have had".

47. Before age 18 were you involved in any kind of sexual contact, or did anyone try to have sexual contact with you?
- 0 = no → *no includes purely consensual peer/boyfriend rel'ps, child sex play)*
- 1 = yes → *if yes, query number _____ of people with whom such experiences occurred; if more than one, complete multiple incident sheets.*
- 2 = not sure "OK, let me ask you a bit about the experience you are referring to".
→ *if not sure, ask question #44 following incident sheets.*

If no, Would you say you were ever sexually abused as a child? (If so, do incident sheet, & chg #47)

GO TO INCIDENT SHEETS HERE, then return to #48/#49

48. (If #47 = not sure) Earlier, when I asked if you were involved in any kind of sexual contact before age 18, you said you weren't sure. What made you unsure? _____

50. When you were 18 older, did anyone ever pressure or force you into unwanted sexual contact?
- 0 = no → *if yes, query number _____ of people with whom such experiences occurred; if more than one, complete multiple incident sheets.*
- 1 = yes
- 2 = not sure "OK, let me ask you a bit about the experience you are referring to".

GO TO INCIDENT SHEETS HERE, then return to #51/52

51. (If #50 = not sure) Earlier, when I asked if you were involved in any pressured or forced sexual contact after age 18, you said you weren't sure. What made you unsure?
- _____
- _____

Code: _____

INCIDENT SHEET

➤ Complete where #47 or #50 are 'yes' or 'not sure'.
 ➤ Complete incident sheet for each disclosed incident.
 ➤ Use additional sheets as necessary.

- *First incident sheet:* "Now I'd like to ask you some more questions about the first such experience that comes to your mind".
- *Subsequent sheets:* "Are there any other experiences? (If yes) "I'd like to ask you the same questions about that one" (or the first one of them, if multiple incidents).

Incident: _____ *Label a-e for childhood incidents, aa-ee for adult incidents*

1. How old were you? _____
2. What was your relationship to the other person? _____
3. How old was he/she? _____
4. What happened? *(get details re: nature & severity)* _____

5. How long did the experience continue? _____
6. How often did the experience occur? _____
7. Did the person use force to try to get you to comply?
 1. yes
 0. no
8. (If # 6 yes) Did the person use or threaten physical violence?
 1. yes *(circle use or threaten)*
 0. no

(If yes, describe briefly) _____

9. Did the person coerce you in any other way? *(Explain if necessary, e.g., convince to participate, said would be in trouble or bad if didn't comply)*
 1. yes
 0. no

(If yes, describe briefly) _____

10. Did you feel you should keep it a secret?
 1. yes *(If yes, describe briefly)* _____

 0. no

11. How upsetting was this incident to you at the time? *(read scale)*
 1. not at all
 2. not very upsetting
 3. somewhat upsetting
 4. very upsetting
 5. extremely upsetting

12. How much of an effect did the incident have on your life? *(read scale)*
 1. extreme
 2. great
 3. moderate
 4. little
 5. none

(skip questions #13 & #14 for adult incidents)

13. Before age 18, did you ever tell anyone about the incident?
 0 = no
 1 = yes (Who? _____)
14. What happened when you told? *(Note reaction of person(s) told & feelings of participant regarding disclosure)* _____

15. After age 18, did you ever tell anyone about the incident(s)?
 0. no
 1 = yes (Who? _____)
16. What happened when you told? *(Note reaction of person(s) told & feelings of participant regarding disclosure)* _____

17. Do you see the experience you have just described as sexual abuse?
 0 = no
 1 = yes
 2 = not sure/maybe *(get details/explain)* _____

Appendix E

Debriefing

WOMEN'S HEALTH & RELATIONSHIPS STUDY PURPOSE OF THE STUDY

Dear Participant:

We would like to thank-you for participating in this study of women's health and relationships. Your responses are greatly appreciated because we realize that many of these questions were personal and perhaps not easy to answer. Please be assured that your responses will remain confidential. Because we are interested in responses from large groups of people (rather than any particular individual), your answers will only be analyzed in combination with all other subjects' responses.

One of the main purposes of this study is to develop a checklist of women's health concerns. While a number of health questionnaires exist, many do not cover the types of concerns that many women may have about their health. We are particularly interested in the types of health concerns that women are dealing with and how they relate to their use of medical services. We hope that the resultant "Women's Health Inventory" will be useful in the assessment of women's health needs and concerns in a variety of situations.

Another central purpose of this study is to understand the impact of attachment relationships on psychological adjustment. We believe that attachment relationships play an important role in predicting psychological adjustment. In addition, we believe that attachment relationships might be "protective" for women with difficult histories. For example, women who were abused in childhood, but who also experienced supportive secure attachment relationships might suffer less psychological distress than women who were also abused but did not have such relationships.

In addition to these two central purposes, we are very interested in the relationship between a number of life experiences and women's current health status, psychological adjustment, and use of medical services. In particular, we are interested in the role of both current and past life stress as potential influences on present physical and psychological health. There is some evidence to suggest that early life stress (such as some types of unwanted early sexual experiences and early experiences with physical aggression) may be associated with reports of certain health concerns and with later difficulties in interpersonal relationships. Similarly, current day-to-day stressors may also contribute to greater health concerns and use of medical services. These are the main questions that the research that you have participated in will be exploring. While not every question about the link between life stress and health can be answered by this study, we hope to begin to address some of the issues that may be of greatest concern to women.

We appreciate your participation in this study, and hope that this has been an educational experience for you. If you have any questions or concerns about this study, please contact Diane Roche or Marsha Runtz. We will be happy to respond to any questions or concerns that you may have about this research. Once the study has been completed, a short summary of the final results will be available from the researchers.

If any of the questions you answered here made you uncomfortable in any way, or if participating in this study has brought up issues that are distressing for you, a resource which might be of assistance is provided below. Further referrals can be obtained either from that agency, or from the researchers.

Researchers: **Diane Roche, M.A.**
Psychology Department
University of Victoria
Rm. 58 L-Hut
(250) 472-4294

Marsha Runtz, Ph.D.
Psychology Department
University of Victoria
A194 Cornett Bldg.
(250) 721-7546

Mailing address: **Psychology Department**
P.O. Box 3050
Victoria, BC
V8W 3P5

Community Agency: **NEED Crisis and Information Line: (250) 386-6323**
confidential telephone counseling and referrals by trained volunteers

List of Resources

WOMEN'S HEALTH & RELATIONSHIPS STUDY RESOURCE LIST

Below is a list of mental health and counseling services that may be of use to you. This list is not intended to be exhaustive. Our goal is to help you make a start on finding services, should you need them. These agencies should be able to provide further referrals.

EMERGENCY MENTAL HEALTH SERVICES 386-6323

Access through NEED Crisis & Information Line

- ❖ Serves people in the Capital Health Region experiencing urgent mental health crises including those with mental illness concerns.

NEED CRISIS AND INFORMATION LINE 386-6323

- ❖ Open to callers of any age, mainly in the Capital Health Region.

ADULT MENTAL HEALTH SERVICES 952-4410

Victoria Mental Health Centre
2328 Trent Street
Victoria, BC

- ❖ Serves adult residents of Victoria and Saanich.

VICTORIA WOMEN'S SEXUAL ASSAULT CENTRE 383-5545

24-hour crisis line 383-3232

- ❖ Serves women who have experienced sexual abuse or assault.

VICTORIA WOMEN'S TRANSITION HOUSE 24-hour helpline 385-6611

Box 5986 Station B
Victoria, BC V8R 6S8

- ❖ Serves women leaving abusive relationships.

WESTERN COMMUNITIES MENTAL HEALTH CENTRE 474-1265

104-3179 Jacklin Road
Victoria, BC V9B 3Y7

- ❖ Serves residents of Langford, Colwood, View Royal, Metchosin, Sooke, Port Renfrew to the Malahat District.

Appendix F

Self-Report Measures**RQ**

Please rate *each* of the relationship styles according to the *extent* to which you think each description corresponds to your relationship style.

- A) **It is easy for me to become emotionally close to others. I am comfortable depending on others and having them depend on me. I don't worry about being alone or having others not accept me.**

1	2	3	4	5	6	7
not at all			somewhat			very much
like me			like me			like me

- B) **I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.**

1	2	3	4	5	6	7
not at all			somewhat			very much
like me			like me			like me

- C) **I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.**

1	2	3	4	5	6	7
not at all			somewhat			very much
like me			like me			like me

- D) **I am comfortable without close emotional relationships. It is important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.**

1	2	3	4	5	6	7
not at all			somewhat			very much
like me			like me			like me

BORRTI – Form O

Sample Items

True-False

- I have at least one stable and satisfying relationship
- When a person close to me is not giving me his or her full attention, I often feel hurt and rejected
- If I become close with someone and he or she proves untrustworthy, I may hate myself for the way things turned out
- Often, I read things into other people's behavior that are not really there
- I yearn to be completely "at one" with someone
- When I am angry with someone close to me, I am able to talk it through
- I pay so much attention to my own feelings that I may ignore the feelings of others
- I believe that a good mother should always please her children

TSI
Sample Items

0 1 2 3
Never Often

Anxious Arousal (AA)

- Periods of trembling or shaking
- Feeling tense or “on edge”

Depression (D)

- Sadness
- Wishing you were dead

Anger/Irritability (AI)

- Becoming angry for little or no reason
- Starting arguments or picking fights to get your anger out

Intrusive Experiences (IE)

- Nightmares or bad dreams
- Suddenly being reminded of something bad

Defensive Avoidance (DA)

- Stopping yourself from thinking about the past
- Staying away from certain people or places because they reminded you of something

Dissociation (D)

- Feeling like you were outside your body
- Not feeling like your real self

Sexual Concerns (SC)

- Not being satisfied with your sex life
- Bad thoughts or feelings during sex

Dysfunctional Sexual Behavior (DSB)

- Having sex with someone you hardly knew
- Getting into trouble because of sex

Impaired Self-Reference (ISR)

- Feeling empty inside
- Feeling like you don't know who you really are

Tension Reduction Behavior (TRB)

- Intentionally hurting yourself (for example, by scratching, cutting, or burning) even though you weren't trying to commit suicide
- Trying to keep from being alone

IIP**Sample Items**

0 **1** **2** **3** **4**
Not at all A little bit Moderately Quite a bit Extremely

Hard to be Assertive

- (Hard to) Say “no” to other people
- (Hard to) Confront people with problems that come up

Hard to be Sociable

- (Hard to) Join in on groups
- I am too sensitive to criticism

Hard to be Submissive

- (Hard to) Get along with people who have authority over me
- (Hard to) Maintain a working relationship with someone I don't like

Hard to be Intimate

- (Hard to) Make a long-term commitment to another person
- (Hard to) Understand another person's point of view

Too Responsible

- (Hard to) attend to my own welfare when someone else is needy
- I feel too responsible for solving other people's problems

Too Controlling

- I try to change other people too much
- I fight with other people too much

PDS

Sample Items

(Check events that have happened)

- Serious accident, fire, or explosion (for example, an industrial, farm, car, plane, or boating accident)
- Sexual assault by a stranger (for example, rape or attempted rape)
- Military combat or a war zone

(Questions about the traumatic event above)

- How long ago did the traumatic event happen?
- Were you physically injured?
- Did you think that your life was in danger?

(Problems after experiencing an event)

- Having upsetting thoughts or images about the traumatic event that came into your head when you didn't want them to
- Trying not to think about, talk about, or have feelings about the traumatic event
- Feeling emotionally numb (for example, being unable to cry or unable to have loving feelings)

(Problems interfering with areas of your life)

- Work
- Relationships with your family
- Sex life
- General satisfaction with life