INTERPERSONAL VIOLENCE: EXPANDING THE SEARCH FOR LONG-TERM SEQUELAE WITHIN A SAMPLE OF BATTERED WOMEN

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(ABSTRACT)

Lifetime sexual and physical victimization history was examined within a shelter sample (N = 30) and outpatient sample (N = 13) of battered women. Participants reported complex and varied lifetime victimization histories with 71% of women reporting a childhood experience of physical abuse and 53% of women reporting a childhood experience of sexual abuse. Lifetime victimization histories were then examined as predictors of functioning within three domains: general psychological distress, intrapersonal functioning, and interpersonal functioning. General psychological distress was an important measure of psychological adaptation which was specifically linked to the severity of more recent victimization, including current sexual abuse and interim physical abuse. Difficulties with identity development, low self-worth, and (at the trend level) difficulties with intimacy and symptoms of borderline personality received some support as long-term outcomes following childhood abuse, specifically experiences of chronic childhood physical abuse.These findings suggest that the type of outcome may be differentially associated with the type, onset, and

combination of abuse experiences.

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Introduction

Responses of both acute and long-term psychological distress have been noted following experiences of interpersonal violence. These experiences include rape and nonsexual assault (Kilpatrick, Saunders, Veronen, Best, & Von, 1987; Steketee & Foa, 1987), childhood sexual abuse (Finkelhor, 1990), childhood physical abuse (Kazdin, Moser, Colbus, & Bell, 1985), and spousal (domestic) assault (Sato & Heiby, 1991). Historically, conceptualizations of psychological distress following victimization have been subsumed under the rubric of crisis theory, which posits a return to normality six to eight weeks after the victimization (Gilmartin-Zena, 1985). Therefore, elucidation of the type and course of outcome following such experiences has been predicated on standardized measures in the domain of stressor-generic and usually, acute forms of psychopathology, (e.g. Beck Depression Inventory, generalized measures of anxiety and fear).

Clearly, reports of distress on these measures are pronounced when assessment occurs proximate to the violent stressor. For example, in a sample of rape victims assessed four weeks after the assault, 43% of the sample met Research Diagnostic Criteria for major depressive disorder (Frank & Stewart, 1984). However, after an initial depressive spike in the wake of the crisis, three month assessment revealed a

significant decrease in depressive symptomatology and subsequently, mood stabilization at 6 and 12 months post-rape (Frank & Stewart, 1984). In contrast, these measures really obfuscate the question about the long-term response to victimization since they, by design, are principally tapping acute, reactive, and crisis-oriented symptomatology. Perhaps there are some additional abuse-related outcomes which are not being tapped by these stressor-generic measures.

Review of Literature

Abuse-related measures and Long-term outcomes

One can not talk about abuse-specific outcomes without first mentioning the trauma-specific diagnosis, post-traumatic stress disorder (PTSD). Post-traumatic stress disorder includes symptoms of re-experiencing of the traumatic event, avoidance of stimuli associated with the event or affective constriction, and increased autonomic arousal following exposure to an extreme stressor (American Psychiatric Association, 1987). In the domain of interpersonal violence, PTSD is prevalent in victims of stranger rape (Kilpatrick, Saunders, Veronen, Best, & Von, 1987), spousal assault (Houskamp & Foy, 1991; Kemp, Rawlings, & Green, 1991), and criminal assault (Kilpatrick et al., 1987). Post-traumatic stress disorder can be acute in nature with PTSD incidence rates reported by up to 94% of a sample of rape victims a couple of weeks after the assault (cited in Foa, Rothbaum, Riggs, & Murdock, 1991). However, PTSD can also be a persistent long-term outcome, often referred to as chronic PTSD, with up to 70 % of a sample of rape victims meeting criteria for PTSD after a mean of nine months post-rape (range = 6 months - 3 years) (O'Gorman & Sayers, 1991). These findings suggest that PTSD may comprise an trauma-specific, long-term outcome- at least for some people who have experienced some kinds of extreme

stressors. It is these qualifications that must be examined in greater detail.

The likelihood of developing PTSD increases when one has experienced an overwhelming event under conditions of danger, perceived life threat, and a great deal of force (Finkelhor, 1987; Kilpatrick, Saunders, Amick-Mcmullan, Best, Veronen, & Resnick, 1989). Not surprisingly, these conditions (danger, perceived life threat, force) typify the experiences which reliably result in PTSD: stranger rape, domestic assault, and criminal assault, and some extreme forms of childhood physical abuse. However, there is growing empirical and theoretical evidence that PTSD comprises only a piece of the distress outcome spectrum following some forms of interpersonal violence.

For example, childhood sexual abuse is usually not perpetrated under such conditions of danger and perceived life threat (Finkelhor, 1987). In fact, as Finkelhor (1987) has pointed out, many forms of sexual abuse comprise more of a "relationship", than a circumscribed "situation". This relationship/victimization often occurs over a period of time and the perpetration may be completed by gradually shaping the victim's cooperation, resulting in relatively little objective force.

Empirical findings appear to support this distinction. In one nonclinical sample of women sexually abused as

children, 4 % meet DSM-III-R criteria for current PTSD, whereas 17% met criteria for PTSD at some time in the past (Greenwald & Leitenberg, 1990). Similarly, the likelihood of developing PTSD following childhood sexual abuse increases when the abuse is characterized by high frequency, long duration, use of special favors (in exchange for abuse), use of force, and perception of life threat (Rodriguez, Ryan, Rowan, & Foy, 1991). Therefore, when sexual abuse begins to resemble stranger rape or criminal assault, e.g. greater force and coercion, danger and perceived threat to life, the likelihood of developing PTSD increases. However, when sexual abuse does not embody these characteristics the incidence of PTSD is relatively low. These findings suggest that the search for abuse-related outcomes may have to be broadened to reflect enduring effects of abuse. These outcomes may also need to be expanded to reflect dynamics associated with different kinds of abuse experiences. Specifically, childhood sexual abuse may occasion an outcome trajectory that is, at least in part, distinct from PTSD.

Sexual-abuse long-term outcomes

When reviewing the literature on the long-term impact of childhood sexual abuse, Finkelhor (1988) noted that, "standardized tests in general are not sensitive to more subtle forms of discomfort and difficulty, and are often

ill-suited to measure some effects associated with the experience of sexual molestation as a child" (p. 274). This observation leads one to ask, what are the more subtle and/or stressor-related effects?

A recent meta-analytic study (Weaver, 1992), which included studies measuring a variety of psychological distress outcomes following experiences of interpersonal violence, offered some clues to answering this critical question. Some psychological distress outcomes, specifically borderline personality disorder and dissociative disorder, significantly discriminated individuals with a history of severe childhood physical and sexual abuse from individuals without these experiences, even after many years had elapsed since the victimization. This finding raises the possibility that these psychiatric disorders may comprise a more sensitive long-term indicator of abuse-related effects. However, this interpretation is compromised by the fact that a comprehensive victimization history, including an assessment of both childhood and recent victimization, and the temporal emergence of the symptoms was not included in the studies with these findings. This omission raises the possibility that a more recent victimization is accounting for the effects, confounding the conclusion of a long-term/sexual abuse-specific effect. Nevertheless, a conceptual link between

these outcomes and chronic and/or severe childhood sexual and nonsexual violence supports their inclusion as abuse-related outcomes.

Briere and Runtz (1988), among others (see Herman, Perry, & Van der Kolk, 1989) posited that dissociation, initially is used as a coping technique when one is confronted with extreme stressors. This strategy can then generalize as a strategy to avoid other aversive or anxiety provoking situations. Conceptually, borderline personality disorder (BPD), while a rather extreme form of psychological distress, can be placed in a more general context. That is, assessment of BPD represents one measure which attempts to assess inter- and intrapersonal processes. Placed within this more general context, both intra- and interpersonal themes would appear to be a very relevant and highly under-researched domain of assessment following experiences of interpersonal violence. In fact, these relationship patterns and intrapsychic phenomena may comprise the fiber of "pathology" after the acute crisis symptomatology has dissipated.

Moreover, the domain of intra- and interpersonal functioning may be particularly important to consider following childhood sexual abuse. Like the other forms of interpersonal violence, not only is a relationship violation endemic to the perpetration of the victimization, but in

many cases this violation will be chronic, often occurring over many years. Concomitantly, the relationship violation is being committed during an important time for development of self and conceptualization of self in relationship to others. Interestingly, Finkelhor's (1988) hypothesis about sexual-abuse related outcomes dovetails with this hypothesis. Finkelhor's premise is that sexual abuse alters a child's cognitive and emotional orientation to the world via a distortion of self-concept, world-view, and affective development. Therefore, the empirical and theoretical evidence suggests that chronic childhood victimization may have a significant impact on developing intrapersonal processes: affective development/control, self-concept, identity; and interpersonal processes: worldview and relatedness to others.

Before continuing, an important theoretical point is worth noting. This hypothesis does not mean to imply that early childhood is the only time that these intra- and interpersonal processes are developing. These processes are dynamic and continually being created and shaped through the lifetime of experiences between the person and the environment. However, childhood experiences are hypothesized as providing the foundation of character and relationship development. Therefore, chronic victimization occurring during this time is thought to have a particularly

deleterious impact on these domains. To place this hypothesis within a theoretical framework, it is important to consider the literature on self theory and the interface between self and developmental theory.

Self Theory : Two perspectives of inquiry

Conceptualizations of the self have a long history in the field of psychology. Recently there has been a reemergence in the interest of self-conceptualizations via the literatures of social cognition and psychoanalysis (Westen, 1992). While these two literatures represent two rather distinct domains of psychological inquiry, conceptually, the overlap is noteworthy and useful when defining the self and exploring self-processes. Both psychoanalytic and social cognition theorists view the self as affective, multidimensional, and interpersonal (Westen, 1992). Additionally, both camps view the self as having transsituational as well as situation-specific qualities, comprising a system of associatively connected representations, and having a developmental history (Westen, 1992).

Therefore, these two conceptualizations suggest that both an affective and an interpersonal dimension is important to consider when defining the self. These two camps also suggest that while the "self" may be subject to situational influences, there is also evidence of stability

over time and situation, providing additional support for the hypothesis that early insults to the self may continue to be evidenced in the long-term. In addition, the self is conceptualized as a complex set of multiple interconnected dimensions. So, any representative measure of the self will have to be fairly broad in scope, as opposed to focusing on only one aspect of the self, such as self-esteem.

Not surprisingly, the defining aspects of the self overlap with Finkelhor's (1988) domains of sexual abuse-related effects, i.e. general cognitive world view (self in relationship to others), self-concept (defining aspects of the self), and affective development (the affective dimension of the self). This overlap supports a conceptualization of abuse-related effects as a violation of self, both intra- and interpersonal self. However, a theoretical conceptualization for these effects is still incomplete without considering self and developmental theory.

Developmental Self Theory

Both cognitive and affective development are interlocking systems which impact upon the developing self. Using Piagetian cognitive developmental theory, Damon and Hart (1982) developed a theory of self understanding from infancy to adolescence.

As the child progresses from infancy to adolescence,

self-understanding progresses from initially physicalistic to psychological conceptualizations. For example, preschoolers have a view of self that is based on actions and body representations: self equals body and actions (Baumeister, 1991; Damon & Hart, 1982). As the child continues to mature, conceptualizations take on an inner focus including increasingly differentiated affective experiences (to be described below): self equals an amalgamation of affective and behavioral representations (Damon & Hart, 1982; Lane & Schwartz, 1987). In addition, self conceptualizations become increasingly volitional as the child compares her/his self to others, acquiring more reflective than exclusively reflexive properties (Damon & Hart, 1982; Baumeister, 1991). Along these lines, the self becomes an increasingly abstract, diverse, multifaceted system, requiring the child to unify and to integrate all parts (Damon & Hart, 1982).

Generally, this developmental theory of self understanding includes two broad categories of the self: self-concept and identity. Generally, self-concept includes the individual's understanding of his/her attributes, including the physical, active, social, and psychological self-constituents (Baumeister, 1991; Damon & Hart, 1982). Essentially, the self-concept is a representation of self as object (Westen, 1992). Identity is the phenomenological

representation of self, or self as subject, and essentially answers the question of "Who am I?" (Baumeister, 1991). Identity consists of three aspects: (1) a sense of continuity of experience, (2) a sense of agency or volition, and a (3) a sense of self as reflector, i.e. self as thinker and feeler (Baumeister, 1991; Damon & Hart, 1982; Westen, 1992).

Keeping this general process of development in mind, chronic abuse can potentially impact upon aspects of both self-concept and identity. For example, chronic insult (victimization) to the developing self may impact such processes as acquisition of increasing volitional control. That is, repeated experiences of powerlessness at the hands of the abuser may result in a self concept that fails to differentiate self from other, i.e. fails to experience volitional control. Similarly, repeated experiences of abuse may prevent the child from attaining increasingly diverse, inner-directed, abstract self-conceptualizations. Failure to achieve this level of abstraction or diversity is tied in part to the necessity of protecting oneself when one is a victimized child. That is, in order to protect oneself the victimized child must maintain a stance of outward vigilance, spending much more time reading/predicting the behaviors of others than increasing the exploration of his or her own inner experiences. Thus, this skewing of

priorities decreases the child's opportunity to diversify the inner, psychological aspects of self.

Meanwhile, the victimized child is having powerful emotional experiences, which s/he may not have the developmental capabilities to explain. The literature on developing emotional awareness is useful for making hypotheses about the affective dimension of self development.

A Developmental Theory of Emotional Awareness

Lane and Schwartz's (1987) developmental theory of emotional awareness states that individuals' emotional awareness is organized within a cognitive structure. This cognitive structure both affects the way in which emotions are experienced and reciprocally, the way in which emotions are reflected verbally or talked about. Similarly, complexity of affective experience is thought to be directly reflected by the complexity of verbal descriptions of these experiences. According to these authors, emotional experience is constructed over time and "...one's inner world can and does become known in the same way that the external world is known (p. 136)." Therefore, the development of emotional awareness parallels cognitive maturation.

Initially, emotional awareness is global, undifferentiated, reflexive body processes (Lane & Schwartz,

1987). This coincides with self development in which the self/other distinction has not been made (Damon & Hart, 1982). The second level of emotional awareness encompasses the awareness of the body in action, parallelling the experience of volition in self development (Damon & Hart, 1982; Lane & Schwartz, 1987). The third level of emotional awareness involves the awareness of individual, either/or, feelings (Lane & Schwartz, 1987). At this level the child's focus is becoming increasingly inner-directed and emotional awareness is becoming more psychological in nature. As development continues, emotional awareness becomes more complex and differentiated in the fourth and fifth stages when the individual becomes increasingly aware of blends of emotions (4th stage) and blends of blends of emotions (Lane & Schwartz, 1987). These stages parallel the processes of self development in which the individual develops increasingly abstract, diverse, and multifacted self conceptualizations (Damon & Hart, 1982). With each advancing stage of emotional awareness, the individual will verbalize more subtle and complex distinctions when asked how s/he feels, since the representation of the experience and the experience itself is codetermined by the same schemata (Lane & Schwartz, 1987). Therefore, cognitive development appears to mediate the developmental process of both self and affective development.

Keeping this theory in mind, how would chronic childhood victimization affect the child's developing system of emotional awareness? During experiences of sexual or nonsexual abuse, the child often experiences intense emotional arousal. However, the child's ability to modulate these emotions may be severely compromised by the diminished complexity of his/her affective system. Based on this theory, long-term effects of childhood victimization on emotional awareness would be reflected in the individual's verbal representations of his or her affective experiences. Alexithymia, or the inability to put feelings into words, is a clinical entity which appears to be a direct application of this theoretical formulation of emotional awareness (Lane & Schwartz, 1987).

Alexithymia was first identified in psychosomatic patients when these patients were noted to substitute action and descriptive words for emotional content (cited in Krystal, Giller, & Cicchetti, 1986). More recently, inpatients with post-traumatic stress disorder evidenced similar levels of alexithymia as inpatient psychosomatic patients, raising the hypothesis that this cognitive-affective deficit may be related to extreme stressor experiences (Krystal, Giller, & Cicchetti, 1986). Therefore, chronic experiences of childhood abuse may result in alexithymia as the child experiences an affective burden

which her/her existing cognitive structures can not accommodate. It's also likely that this affective overload is connected with the onset of the dissociative process, i.e. splitting affect from self or in extreme cases splitting into different selves, as a way of relieving the existing cognitive structures from the affective demand. Dissociative processes in turn can have a profound impact upon identity and self-concept development as the child experiences multiple periods of discontinuity (dissociation), which impede the integration and unification of different aspects of self (self-concept), not to mention a failure to sense self as having existed during various times in the past (Westen, 1992).

Moreover, childhood victimization experiences appears to intensify an individual's psychological response to a recent victimization, suggesting that the individual may in some way be sensitized by the earlier insult. Dancu, Riggs, Shoyer, and Foa (1991) assessed the incidence of dissociative phenomena in sexual and nonsexual assault victims, compared to a sample of nonvictims, and found significant main effects of child abuse, demonstrating that individuals who experienced abuse in childhood dissociated more than individuals who did not experience abuse in childhood, regardless of current victimization status. They also reported a significant child abuse by assault type

interaction, demonstrating that both sexual and nonsexual assault victims dissociate more if they had childhood abuse than if they did not experience childhood abuse, but this difference was greater for the sexual assault victims than for the nonsexual assault victims.

Post-traumatic stress disorder also appears to be affected by childhood experiences of abuse. A study assessing battering-related PTSD found individuals experiencing childhood sexual and physical abuse and interim rape experiences evidenced significantly more intense levels of battering-related PTSD (Ogland-Hand et al., 1991) than individuals who did not have these histories. These researchers suggested that similarities in the experience of childhood abuse, rape, and battering may interact and potentiate the response to the more recent stressor. Some of these similarities include betrayal at the hands of a trusted person as well as specific aspects of the abusive experience.

Taken together, theoretical conceptualizations suggest that experiences of interpersonal violence in childhood can have a profound effect upon the developing self, including intrapersonal, interpersonal, and affective processes. These childhood experiences also appear to interact with subsequent extreme stressors to influence psychological outcome. However, these "subtle" effects have been rarely

explored empirically, largely because most of the literature has relied on stressor-generic measures of psychological outcome. As previously emphasized, these measures are not sensitive to these types of pervasive, long-term outcomes.

Proposal for Broadening the Empirical Exploration of Long-Term Abuse-Related Outcomes

This study proposed an expanded exploration of long-term abuse-related outcomes, guided by the theoretical integration of processes associated with the perpetration of the abuse and developmental theory. In order to demonstrate that childhood experiences of interpersonal violence result in these types of outcomes, it is important to examine the strength of the relationship between a variety of different forms of interpersonal violence and the abuse-related outcomes. If these are long-term abuse-related outcomes, the relationship would be stronger between childhood victimization and the proposed outcomes than between victimization occurring later in life and proposed outcomes.

Battered women are a population which, by definition, are experiencing a form of interpersonal victimization with an onset in adulthood. In addition, battered women often have histories filled with multiple exposures to stressors of interpersonal violence. One recent study assessed the incidence of different histories of interpersonal violence in a sample of 103 battered women who were either shelter

residents or were participants in some form of counseling program (Ogland-Hand, Astin, Colemen, & Lawrence, 1991). Fourty-two percent of the women reported a history of childhood sexual abuse, 34% reported a history of childhood physical abuse, 16 % reported a previous rape, and 6% reported criminal assault (Ogland-Hand, et al., 1991). If this sample is representative of shelter samples of battered women, these percentages suggest that a third to almost half of battered women have histories of childhood abuse, while two-thirds to half of battered women do not. Given these percentages, battered women appeared to be an ideal population with which to study differential impacts of interpersonal violence.

This study advanced the trauma literature in the following ways. First, a lifetime history of interpersonal victimization was assessed to examine the relationship between childhood victimization and current psychological distress outcomes. Historically, researchers have examined general psychological distress outcomes and their relationship to a single stressor, e.g. rape, without considering the possibility that the individual has experienced multiple stressors of interpersonal violence. Second, the more subtle effects of interpersonal violence were assessed: intra-, interpersonal, and affective processes, in addition to more standard stressor-generic

measures. Third, the choice of assessment instruments and the hypothesized relationships was guided by the integration of trauma and developmental theory. Historically, research in the area of sexual abuse has not been conducted within a theoretical framework and similarly, findings in existing studies have not been used to advance existing theories. The hypotheses for the proposed study were:

1. The level of childhood abuse is expected to be significantly and positively related to composites of general functioning as well as functioning in the domain of intra- and interpersonal development.

2. The level of current abuse is expected to be significantly and positively related to composites of general functioning.

3. Childhood abuse is expected to add significant and unique variance beyond the level of current abuse to the prediction of general functioning, intrapersonal functioning, and interpersonal functioning.

4. Childhood abuse by Current abuse interaction is expected to add significant and unique variance beyond the level of childhood abuse and current abuse, alone, to the prediction of general functioning, interpersonal functioning, and interpersonal functioning.

5. Childhood abuse is expected to add significant and unique variance beyond the level of current abuse to the prediction of alexithymia.

6. Childhood abuse is expected to add significant and unique variance beyond the level of current abuse to the prediction of borderline personality disorder.

7. The level of childhood sexual abuse is expected to add significant and unique variance beyond the

level of current abuse to the prediction of an intimacy subscale of a measure of interpersonal problems.

8. The level of childhood sexual abuse is expected to add significant and unique variance beyond the level of current abuse to the prediction of an identity subscale of a measure of self-concept.

9. The level of childhood sexual abuse is expected to add significant and unique variance beyond the level of current abuse to the prediction of a self-as-agent subscale of a measure of self-concept.

10. The severity of childhood sexual abuse is expected to add significant and unique variance beyond the level of current abuse to the prediction of a self-worth subscale of a measure of world view.

Method

Subjects

All subjects were female participants from one of six sites providing therapeutic/supportive services for battered women. Four of the sites were shelters for battered women: 1) The Turning Point Shelter in Roanoke, VA (23/43 or 53% of all participants) ; 2) The Family Resource Center in Rocky Mount, VA (5/43 or 12% of all participants); 3) The Rainbow House in Martinsville, VA (2/43 or 5% of all participants); and 4) The Women's Resource Center in Radford, VA (2/43 or 12% of all participants). The other two sites were locations offering outpatient therapy to individuals experiencing psychological distress: 1) The Women's Program at Lewis Gale in Roanoke, VA (5/43 or 12% of all participants); and 2) The Psychological Services Center in Blacksburg, VA (6/43 or 14% of all participants). Across all six sites women were targeted for inclusion in the study if they had a history of physical abuse or threat of physical abuse by an intimate partner. Women with a history of physical abuse or physical threat were then eligible for inclusion in the study if they: (1) were between the ages of 18 and 65, (2) were literate at the 6th grade reading level (3) were not experiencing hallucinations, delusions or currently detoxing. Both first-timers and repeaters at the shelter were eligible for

participation in the study. Number of times using the shelter was assessed.

Forty-five out of 45 eligible referred participants agreed to participate in the study yielding a 100% rate of compliance with the referral. Two of the 45 participants were unable to complete the study; one participant was unable to communicate with the level of English required to complete the interview and questionnaires and one participant was unable to complete any questionnaires because she had to terminate participation to go to work. Forty-one of the remaining 43 participants met inclusion criteria and were able to complete all aspects of the study in its entirety. The two remaining participants completed almost all aspects of the study except two questionnaires, in one case, and three questionnaires, in the other case. These two participants received averaged scores on these questionnaires and were included in the total sample of 43 participants.

Procedure

Women meeting the above inclusion criteria were informed about the study by the director or contact person at each facility. Individuals expressing an interest in participating were be approached by the investigator (T.L.W.) and were given a brief description of the study as well as the informed consent. It was emphasized that

participation was voluntary and would not affect their status or treatment at their respective facility. Ninety-one percent (n = 29/32) of participants who were residents at one of the battered women's shelters completed the study within 21 days of their arrival to the shelter.

Following the completion of the informed consent, participants completed a brief demographic interview. Then, participants were interviewed using series of semi-structured interviews, listed in order of administration, assessing 1) lifetime and current symptoms of PTSD; 2) symptoms of alexithymia; 3) current symptoms of borderline personality disorder (BPD); 4) life-time history of sexual and physical victimization; 5) current (past year) level of physical and sexual victimization. The victimization assessments were presented last so as not to bias the interviewer with knowledge of the participant's victimization status.

After the interviews, participants completed five self-report measures assessing general symptoms of psychological distress, world view, interpersonal problems, intrapersonal concepts, and dissociative experiences. The modal length of time taken to complete the interviews and questionnaires was between 2 1/2 and 3 hours.

Measures

PREDICTOR VARIABLES

Predictor variables were divided into three developmental stages: childhood, interim, and current. Experiences of sexual and physical abuse were assessed at each of these three stages. Operational definitions and decriptions of measures assessing each of these stages are listed below.

CHILDHOOD ABUSE

Family Experiences Survey (Finkelhor, 1979).

A modification of Finkelhor's survey was utilized with the questions presented in an interview format. Items tapping sexual and physical abuse were presented, comprising the assessment of childhood abuse. Childhood was operationally defined as encompassing the ages of 0 - 16.

Childhood Sexual Abuse

Sexual abuse was operationally defined as any self-reported sexual contact (fondling to intercourse) experienced by the individual with someone markedly discrepant in age, five years or older for a child under the age of 13 and ten years or older for an adolescent between the ages of 13 and 16, emphasizing the relative youth of the victim and the relative power of her abuser (Finkelhor, 1979).

Each event of childhood sexual abuse was assessed for reported frequency, duration, perceived emotional impact on the subject, age of onset, relationship with the

perpetrator, weapon, injury, and perceived life threat. Childhood sexual abuse was assessed within each of three developmental time periods spanning childhood (0 - 6 years, 7 - 12 years, and 13-16 years). A childhood sexual abuse severity composite score was created using ten variables assessed within each of the 3 developmental age periods. The 10 variables making up the composite score were each given a score of "1" if they applied, making the range of possible "sexual abuse" scores from 0 - 10 for each of the three developmental periods (possible total of 30).

The variables making up the composite scores were as follows: (1) "sexual abuse" indicating that there was an incident of sexual abuse during this time period; (2) the "relationship variable," indicating whether the abuse was perpetrated by a relative (e.g. father, mother, grandfather, stepfather) (score of "1") or a nonrelative (e.g. babysitter, swim coach, neighbor) (score of "0"); (3) the "force variable," indicating whether force was used during the abusive experience (score of "1"); (4) "duration variable" indicating whether the abuse occurred for more than one year (score of "1") or less than one year (score of "0"); (5) "frequency variable, " indicating whether the experiences happened more than one time (score of "1") or one time only (score of "0"); the (6) "multiple perpetrator variable" indicating whether there was more than one

perpetrator during the developmental stage under question (score of "1"); and the (7) "subjective response variable" indicating whether the individual felt that the experience was largely positive (positive or mostly positive) or neutral (neutral or mostly neutral) (score of "0"), or negative (score of "1"), (8) a weapon indicating whether the perpetrator used a gun, knife, or other weapon (score of "1") or no weapon was used (score of "0"); (9) an injury variable which assessed whether the individual received any injuries during the incident, including bruises, cuts, or abrasions (score of "1") or whether the individual received no injuries (score of "0"); and (10) a perceived life threat variable which assessed whether the child felt her life was in danger (score of "1") or the child did not feel her life was in danger (score of "0"). Cronbach's alpha was .87 for the total childhood sexual abuse composite score showing that there was consistency in the items making up the total score.

Inter-rater reliability was assessed by having a master's level clinical student listen to an audiotape of 14 semi-structured interviews randomly chosen throughout the duration of the study. There were no discrepancies between the sexual abuse composite scores of the interviewer and the rater yielding $r = 1.00$ ($p < .0001$) for sexual abuse during ages 0 - 6 years, for sexual abuse during ages 7 - 12 years,

and sexual abuse during ages 13 - 16.

Childhood Physical Abuse

Childhood physical abuse was assessed during the three childhood developmental periods using Finkelhor's Family Experiences Survey. Physical abuse was defined as punishment that results in physical marks, bruises, breaks in the skin or an injury that warranted medical treatment, whether or not treatment was received. Participants quantified the frequency of physically abusive events perpetrated by a brother/sister, father (or father figure), or mother (or mother figure) according to a six point scale ranging from 0 (never occurred) to 6 (occurred more than 20 times). Composite scores were created for the severity of childhood physical abuse by summing the number of incidents within each developmental period for a possible total score of 54.

The total score for childhood physical abuse was internally consistent with an alpha = .86. Inter-rater reliability was determined using the same procedure as was used for childhood physical abuse. Scores for each developmental level were nearly identical between the interviewer and the rater yielding r = .998 (p < .0001) for physical abuse occurring between the ages of 0 and 6 years, r = .993 (p < .0001) for physical abuse occurring between the ages of 7 and 12 years, and r = 1.00 (p < .0001) for physical abuse occurring between the ages of 13 and 16

years. Minor discrepancies between the scores of the rater and interviewer were settled by using the interviewer's scores since interviewer was with the participant and not hampered by difficulties hearing on the audio-tape.

INTERIM ABUSE

Interim Sexual Abuse

Interim sexual abuse was assessed using an extension of Finkelhor's FES and was operationalized as any sexual experiences occurring after the age of 16, but prior to the current relationship, in which the individual felt that a sexual experience was forced on her, done against her will, or which she did not want to happen. The variables used to create the childhood sexual abuse composite score were retained to create the interim sexual abuse score with one exception. The relationship variable was extended and dichotomized as a family member, acquaintance, or friend (score of "1") or a stranger (score of "0") to more fully capture some of the date and acquaintance rapes which may occur during this developmental age period. Therefore a participant could receive a possible total score of 10 for interim sexual abuse.

Cronbach's alpha revealed that the interim sexual abuse variable was internally consistent, alpha = .87. Inter-rater reliability revealed nearly identical interim sexual abuse scores for the interviewer and rater, $r = 1.00$ ($p < .0001$).

Interim Physical Abuse

Interim physical abuse was assessed using two measures. The first assessment included an extension of Finkelhor's FES assessing from age 16 to the current relationship with one addition: my boyfriend/husband did to me. Therefore, the three items used to assess childhood physical abuse (my father, my mother, my brother/sister did this to me) were retained with each item having a total possible score of six points. With the additional item (my boyfriend/husband did this to me with a possible total score of 6 points) the individual could receive a score of 24 for interim physical abuse.

In addition, more nonfamilial, nonacquaintance forms of physical abuse, i.e. stranger aggravated assault, were assessed using an interview developed by Kilpatrick, Saunders, Amick-Mcmullan, Best, Veronen, & Resnick, 1989). Stranger aggravated assault were operationalized as an attack by an assailant with a gun, knife or other weapon, or an attack without a weapon in which the individual felt there was intent to kill or seriously injure her.

A composite score for aggravated assault were created using the following variables: (1) an aggravated assault occurred (score of "1"), (2) a weapon variable assessing whether the attacker used a gun, knife, or other weapon (score of "1") or no weapon was used (score of "0"), (3)

perceived life threat, assessing whether the individual felt as if her life was in danger (score of "1") or the individual felt that her life was not in danger (score of "0"), (4) injuries, assessing whether the individual received any injuries during the incident, including bruises, cuts, or abrasions (score of "1") or whether the individual received no injuries (score of "0") (5) frequency, assessing whether this type of assault happened more than one time (score of "1") or type of assault happened one time only (score of "0"). This resulted in a total possible score of 5 for stranger aggravated assault interim abuse.

Summing across the familial/acquaintance interim physical abuse and the stranger aggravated assault interim abuse the individual could receive a possible score of 29. Like Kilpatrick et al. (1989), if the individual experienced an aggravated assault which included a sexual assault the incident will be classified as a sexual assault.

Cronbach's alpha for interim physical abuse was .87. Inter-rater reliability again revealed that scores between the interviewer and rater were nearly identical, $r = .99$ ($p < .0001$).

The scoring/classification system for childhood and interim abuse are summarized in Appendix A.

CURRENT ABUSE

Current Physical and Sexual Abuse

Modified Conflict Tactics Scale (CTS; Straus, 1979).

A version of the conflict tactics scale modified to assess spousal abuse (Ogland-Hand, Astin, Coleman, & Lawrence, 1991) was used to obtain a continuous measure of incidences of current abuse. The assessment of spousal violence was conducted in an interview. The CTS had adequate internal consistency (Straus, 1979) and correlated with a variety of hypothesized outcomes of marital aggression (Straus, Gelles, & Steinmetz, 1980).

The scale starts with items which are relatively low in coerciveness (such as discussing the issue with the other person) and becomes gradually more coercive and aggressive toward the end of the list (such as slapping, hitting, beating, etc.). For each of these items, the respondent was asked to report the number of times which her partner has used these behaviors in the previous year to settle conflicts, ranging from 0 to more than 20 times. In a recent study using this scale, researchers reported three factor scores: verbal aggression, physical aggression, and life-threatening violence (Ogland-Hand et al., 1991). The physical aggression scale included aspects of both sexual and nonsexual violence.

Since this proposed study wishes to distinguish between forms of sexual and nonsexual violence, the scoring of this

measure was modified. Physical abuse was assessed by the following questions (each rated on a score from 0 -6): (1) pulled your hair, (2) pushed, carried, restrained, grabbed, shoved you, (3) slapped or spanked you, (4) burned you, (5) threw an object at you, (6) kicked you or hit you with a fist, (7) threw you bodily, (8) hit you or tried to hit you with something, (9) beat you up (multiple blows), (10) choked or strangled you, (11) threatened you with a knife or gun, (12) used a knife on you or shot you with a gun, (13) tried to drown you (14) threatened to kill you or your children (15) injured you to the extent that you needed medical care, (16) treated you in such a way that you strongly believed that your life was in danger. These variables result in a total possible score of 96. In addition the woman was asked to report the length of time that her partner has used the types of behaviors she reported.

Current physical abuse total score was internally consistent with alpha = .88, with high agreement between the interviewer and the rater, $\underline{r}$ .998, $\underline{p}$ <.0002. Inter-rater agreement for length of current physical abuse was perfect, $\underline{r}$ = 1.00 ($\underline{p}$ < .0002).

Current sexual abuse was obtained by summing the woman's response to two questions assessing sexual violence in the past year of the relationship (each rated on a score

from 0 - 6): (1) Physically forced sex on you, (2) Made you commit sexual acts which you found repulsive (3) Physically forced you to have oral sex, (4) Physically forced you to have anal sex, (5) Put fingers or objects in your vagina by using force or threat of force (6) Touched your breasts or pubic area or made you touch his penis by using force or threat of force. These variables resulted in a total possible score of 36. Again, the woman was asked to report the length of time that her partner has used the type of behaviors she reported to settle conflicts.

Current sexual abuse total score was internally consistent, alpha = .88, with high agreement between the interview and the rater, r = .995 (r < .0002). Inter-rater agreement for length of current sexual abuse was perfect r = 1.00 (p < .0002).

CRITERION VARIABLES

Measures of General Functioning

Derogatis Brief Symptom Inventory (Derogatis & Spencer, 1982). The BSI consists of 53 items designed to measure the psychological symptom patterns of individuals on nine primary symptom dimensions: Somatization, Obsessive-Compulsiveness, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. The "General Severity Index" is the mean score over all 53 items and individuals receiving a score of

63 or greater are thought to evidencing clinical levels of psychological distress. The BSI is a brief form of the Symptom Checklist-90-Revised (SCL-90-R) and assesses each of the nine dimensions and global indices. The general severity index was internally consistent with alpha = .85.

Dissociative Experiences Scale (Bernstein & Putnam, 1986). This self-report scale consists of 28 experiences, selected using data from individuals meeting DSM-III-R criteria for dissociative disorders and consultations with experts in the field. These experiences are rated on a continuum of 0 - 100, reflecting the degree that the experience applies to the individual. The scale is then quantified using a digitizing table and the average of the responses to all 28 items comprises the DES score.

Test-retest reliability of the measure is .84 and all item-total correlations proved significant. Criterion referenced concurrent validity of the measure was established by showing that DES score discriminated individuals with a dissociative disorder (multiple personality disorder) from a variety of other diagnostic groups: alchoholics, phobics, agoraphobics, schizophrenics, post-traumatic stress disorder; and normals.

Structured Clinical Interview for DSM-III-R (PTSD subscale) (SCID; Spitzer & Williams, 1985). The post-traumatic stress disorders (PTSD) portion of this semi-

structured interview will be used to assess for the presence of PTSD, with the current abuse as the identified stressor. An interview was chosen over a self-report to assess for PTSD as self-report measures have tended to underreport the incidence of PTSD (Houskamp & Foy, 1991). In addition, structured clinical interviews assessing for the presence of PTSD typically demonstrate higher reliability than self-report measures (cited in Ogland-Hand et al., 1991).

Participants were asked the entry criterion A PTSD screening question, "Have you ever had an experience that was really frightening or traumatic, like having your life threatened, seeing someone dead or badly hurt, or having your house burn down." The women were then asked to list all of their life experiences which they thought met the stated criteria. Then, if the women responded with more than 2 responses they were asked to choose "the two most traumatic events" and the entire PTSD assessment was completed for each of the two traumatic stressors.

Individuals were given a PTSD total score, summing across all endorsed symptoms. Individuals were also coded as meeting diagnostic lifetime or current PTSD as well as subthreshold lifetime or current PTSD. Criterion "A" event was coded, e.g. battering-related, rape-related, sexual-abuse related PTSD. For purposes of the analyses,

continuous scores for all subthreshold and diagnostic current PTSD was used regardless of the criterion A stressor. Current functioning was used for continuity with the other criterion measures which are all "current level of functioning."

Inter-rater reliability was calculated by comparing the rater and interiewer's total PTSD scores. The resulting correlation was statistically significant, r = .63 (p < .03).

Personality Disorder Exam (PDE; Loranger, 1988)

The borderline portion of this semistructured interview was used to assess for the presence of each of the eight DSM-III-R BPD criteria by asking a question or a number of questions. The PDE enables the interviewer to ascertain whether the respondent meets criteria for diagnosis of BPD and has been found to be unaffected by state artifacts of depression when making trait-like diagnoses (Loranger, Lenzenweger, Gartner, Susman, Herzig, Zammit, Gartner, Abrams, & Young, 1991). Diagnosis of BPD can also be represented as a dimensional rating by summing the individual's scores on each of the criteria. The test-retest reliability of the dimensional scores ranged from .66 - .86, with a median of .71 in the reports of the standardization of the instrument (Loranger, 1988).

Inter-rater reliability for the diagnosis of BPD

reported in a recent study was moderately high, yielding a kappa equal to .76 (Weaver & Clum, 1992). Inter-rater agreement within this study was calculated by examining the correlation of the total dimensional BPD score. The inter-rater agreement was high, r = .82 (p < .0003). In addition, the dimensional BPD score was internally consistent with alpha = .86.

Interpersonal Measures

World Assumptions Scale (WAS, Janoff-Bulman, 1989). This scale consists of 32 items assessing individual's world view. Respondents utilized a 6 point response scale to indicate their degree of agreement or disagreement with each of the assumptions. The assessment of three basic (factor) assumptions are suggested: benevolence of the world, meaningfulness of the world, and self-worth. The internal consistencies or alpha values for each of the factors is .87 (benevolence of the world), .76 (meaningfulness of the world, and .80 (self-worth). Internal consistencies in this study were comparable with alphas greater than .85 for each of the three subscales.

In the standardization of the instrument college-aged students who experienced a trauma, including death of a parent, death of a sibling, incest, rape, fire, or a serious accident, were compared to a college-aged sample of nonvictims (Janoff-Bulman, 1989). Self-worth emerged as the

single best predictor of victim-nonvictim status with a standardized canonical discriminant function coefficients of .836.

In the implementation of this measure, the first 33 individuals completed their responses to questions as true/false rather than along a continuum from 1-6. In order to combine and to utilize all subjects in the analyses, all remaining questionnaires, which were answered using the likert scale, were dichotomized into true, if participants responded between 1 and 3, and false, if participants responded between 4 and 6. Justification for coding the responses in this way was two-fold: 1) there is literature showing that incremental responses on likert scales do not add predictive power over merely examining the direction or valence of the response (Peabody, 1962) and 2) on this likert scale there was no neutral response, ensuring the participants were denoting a clear direction of response.

Again, for initial analyses, scores were collapsed into one score for "assumptive world view." This score was calculated by combining responses on the subscales of benevolence, meaningfulness, and self-worth. The overall score was internally consistent, alpha = .81. In addition, each of the three subscales comprising the overall score were significantly intercorrelated (p's < .05).

Inventory of Interpersonal Problems: (Horowitz,

Rosenberg, Baer, Ureno, & Villasenor, 1988). This 127 item scale is divided into two sections and was developed on an outpatient treatment-seeking population by recording their most common interpersonal complaints. The first section consists of 78 items and includes four subscales indicating that "It is hard for me to be..." (1) Assertive, (2) Sociable, (3) Submissive, and (4) Intimate. The second section consists of 49 items and consists of two subscales indicating that "I am ..." (1) Too responsible and (2) Too controlling.

Scoring of this measure also allows one to create an overall composite score of the individual's interpersonal problems. In the standardization of this measure, test-retest reliabilities of all subscales ranged from a low of .82 for the assertive and controlling subscales to a high of .90 for the sociable subscale. The alpha values for each subscale ranged from .82 - .94.

Within this study, the mean composite for an individual's interpersonal problems was used and this mean score had an internal reliability estimate of .82.

Intrapersonal Measures

The Omnibus Self-Test (Jensen, Huber, Cundick, & Carlson, 1991): This measure was created to assess a variety of different self-dimensions utilizing developmental self-theory to generate appropriate items. There are 12

subscales: self-esteem, positive self-regard, moral self-concept, self-confidence, self-reliance, self-control, selfishness, self-disclosure, self-as-agent, self-critical, self-identity, self-reflection.

This scale was standardized on a sample of college-aged students. For this sample, the means and standard deviations for each of the subscales indicated values suggesting that there was not a floor or ceiling effect. All subscales evidenced alpha levels in excess of .67, with the exception of self-reliance (alpha level equal to .53). Two-week test-retest reliabilities for each scale were all above .79.

Within this study, alpha levels for all subscales exceeded .80. For initial analyses, a composite score representing "self" was created by combining multiple subscales. Intercorrelations between subscales were calculated and subscales which were significantly intercorrelated were combined to make the total score. Each of 9 of the subscales: 1) self-esteem, 2) positive self-regard, 3) moral self-concept, 4) self-confidence, 5) self-reliance, 6) self-control, 7) self-disclosure, 8) self-as-agent, and 9) self-identity were significantly ($\underline{p}$'s < .001) correlated with each other, with one exception: self-disclosure and self-reliance were correlated at the trend level ($\underline{r}$ = .27, $\underline{p}$ < .10). Selfishness, self-reflection, and

self-critical were not used in the total score because they were nonsignificantly correlated with multiple subscales. This overall score was internally consistent with alpha = .69.

Alexithymia Provoked Response Questionnaire (APRQ, Krystal, Giller, & Cicchetti, 1988). This semi-structured interview consists of an assessment of responses to 17 items. Scoring of responses is dichotomized as "alexithymic" or "not alexithymic" according to a number of criteria. A lower score indicates a more alexithymic result.

This interview was standardized on a sample of individuals in four groups: inpatient PTSD, outpatient PTSD, inpatient psychosomatic disorder, inpatient affective disorder. The APRQ correlated significantly with a measure of psychosomatic illness, suggesting content relevance of these items given the conceptual link between alexithymic and psychosomatic distress (Krystal, Giller, & Cicchetti, 1988). Inter-rater reliability estimates for each item were statistically significant at levels of probability ranging from .01 - .00001.

Within this study, the level of inter-rater reliability did not meet statistical significance $\underline{r} = .35$, $\underline{p} < .25$. Therefore, this measure was deemed too unreliable to use in the statistical analyses.

Results

Demographic Analyses and Sample Characteristics

The sample's demographic characteristics, relationship characteristics, and therapy history are listed in Table 1. The sample was divided into shelter and nonshelter participants for comparison of the individuals seeking different forms of treatment.

Insert Table 1 about here

Cell sizes for categorical variables were too small to permit statistical analyses. Therefore, categorical results were summarized descriptively. The entire sample was predominantly Caucasian (37/43, 86%) and Caucasian race was the largest representation within both shelter and outpatient participants. Similarly, the entire sample averaged 12 years of education as does each of the two groups.

An examination of employment status revealed that most of the participants within the entire sample were either unemployed or worked by keeping house. When all possible categories were collapsed reflecting employment (i.e. full-time and part-time) compared to all categories reflecting

Table 1. Demographic and Relationship Characteristics for Shelter (N = 30) and Outpatient (N = 13) Participants and Total Sample (N = 43)

Characteristic	Shelter[a]	Outpatient[b]	Total
Age (Years)			
Mean (SD)	31.6 (9.3)	39.9 (14.9)	34.1 (11.8)
Race N (%)			
White	25 (83)	12 (92)	37 (86)
Black	4 (13)	1 (8)	5 (12)
Hispanic	1 (3)	0 (0)	1 (2)
Education (Years)			
Mean (SD)	11.3 (1.8)	12.6 (2.2)	11.7 (2.0)
Employment Status N (%)			
Unemployed	11 (37)	1 (8)	12 (28)
Student	1 (3)	1 (8)	2 (5)
Employed part-time	2 (7)	5 (39)	7 (16)
Employed full-time	3 (10)	2 (15)	5 (12)
Keep House	10 (33)	3 (23)	13 (30)
Retired	1 (3)	0 (0)	1 (2)
Disability	2 (7)	1 (8)	3 (7)
Marital Status N (%)			
Married	14 (47)	4 (31)	18 (42)

Table 1 contd. Demographic and Relationship Characteristics for Shelter Participants (N = 30), Outpatient Participants (N = 13), and Total Sample (N = 43)

Characteristic	Shelter[a]	Outpatient[b]	Total
Widowed	0 (0)	0 (0)	0 (0)
Divorced	2 (7)	4 (31)	6 (14)
Separated	3 (10)	5 (38)	8 (19)
Cohabitating	9 (30)	0 (0)	9 (21)
Single	2 (7)	0 (0)	2 (5)
Length of Time With Partner (Months)			
Mean (SD)	67.0 (64.5)	162.3 (189.8)*	94.2 (120.4)
Length of Time Separated from Partner[c]			
Mean (SD)	1.1 (.25)	61.3 (88.0)**	19.3 (54.7)
Length of Time at Shelter (Days)[c]			
Mean (SD)	12.3 (10.9)	3.3 (8.4)*	1.4 (1.4)
Previous Therapy (Months)			
Mean (SD)	13.5 (23.7)[d]	58.7 (81.7)[e]*	29.4 (55.3)[f]

Note: Partner refers to the most recent partner who was physically abusive to the participant. Since percentages are rounded up to the nearest whole number some of the total percentages add to more than 100%.

[a]Shelter refers to participants from Turning Point Shelter, Rocky Mount Shelter, or the Rainbow House.

[b]Outpatient refers to participants from Lewis Gale's Women's program or participants from the Psychological Services Center.

[c]Mean is based on responses from 42 participants.

[d]$N = 22$.

[e]$N = 12$.

[f]$N = 32$.

*$p < .05$, two-tailed t test.

**$p < .001$, two-tailed t test.

unemployment (i.e. unemployed, student, keeping house, retired and disability), the shelter sample was more likely to be unemployed (25/30, 83%) compared to the outpatient sample (6/13, 46%), although again, the cell sizes were too small for statistical testing.

Within the sample as a whole, almost half of the participants were married at the time of the interview (18/43, 43%). However, an interesting pattern emerged when looking across the sample divided by shelter or outpatient status. While over three quarters of the shelter participants were married or cohabitating at the time of the interview (23/30, 77%), a sizeable majority of the outpatient participants were divorced or separated (9/13, 69%). Similarly, outpatient participants were separated from their abusive partners significantly longer than shelter participants (t (41) = -3.8, p <.001, two-tailed t test).

Interestingly, outpatient participants had been with their abusive partners significantly longer than shelter participants, although this may be related to the relative age difference between groups. That is, the outpatient group were both on average 8 years older than the shelter sample and had been with their partners on average 8 years longer than the shelter sample. In further support of this interpretation, age was significantly correlated with length

of time with one's partner (r = .41, p < .01).

Not surprisingly, shelter participants spent significantly more days in shelters than outpatient participants (t (26.2) = 2.9, p < .001, two-tailed t test for unequal variances). Outpatient participants were significantly more likely to have had previous therapy than shelter participants (t (32) = -2.3, p < .05, two-tailed t test).

Taken together, the women as a whole were predominantly caucasian, married, unemployed, and had been in a fairly long-term relationship with the abusive partner. Within each of the samples, there were a number of trends. The shelter sample was less likely to be employed, were younger, and more likely to be married compared to the outpatient sample. While these were not statistically significant differences, these findings suggest that the women seeking shelter services had fewer resources, such as money, jobs, and insurance, compared to the outpatient sample. The shelter sample was significantly more likely to have been recently separated and more likely to have had shelter days. These differences reflected the rather intuitive finding that the shelter sample is in an acute crisis compared to the outpatient sample, in which the abuse was typically less recent.

The Virginia department of social services provides

descriptive statistics on the types of services provided to battered women and the characteristics of women using these services (Virginia Department of Social Services, 1992). The demographic characteristics of sheltered women in this study were comparable to the state sample of women listed in the shelter statistics for 7/01/91 to 6/30/92. Similar to this sample, the state sample of sheltered abused women within the 1991 - 1992 year were disproportionately white, more likely to fall within the age range of 18-44, were more likely to be fleeing from their husband, and were most likely to reside at the shelter between 24 hours and two weeks. This very general comparison suggests that the shelter portion of the sample is roughly representative of battered women staying in shelters in Virginia.

Given the significant differences between shelter/nonshelter groups for length of time with partner, length of time separated from partner, extent of previous therapy, and number of shelter days, spearman correlations were calculated for each of these variables and the predictor and criterion variables to determine whether there were any significant relationships which warranted statistical control in subsequent analyses.

Of the possible 24 correlations with the criterion variables only four were statistically significant. Length of shelter stay was nonsignificantly correlated with all of

the criterion variables. Length of previous therapy was significantly correlated with the measure of assumptive world view (r = -.34, p < .05); length of time separated from the abusive partner was significantly correlated with the omnibus self test (r = -.37, p = .01) and the measure of assumptive world view (r = -.35, p = .02); and length of time with partner was significantly correlated with the dissociative experiences scale (r = -.34, p = .03). Of the 24 possible correlations with the six predictor variables, only 3 were statistically significant. Length of time separated from husband and number of shelter days was significantly correlated with level of current physical abuse (r = -.38, p = .01 for length of separation and r = .38, p = .01 for number of shelter days). Since level of current physical abuse by definition was temporally linked to past year occurrence this relationship was not surprising. Length of time with partner was also significantly correlated with level of interim physical abuse (r = -.35, p = .02).

Since variables associated with treatment status (i.e. shelter or outpatient treatment) did have some relationship with the predictor and criterion variables of interest, a dichotomous variable designating treatment status (shelter vs. outpatient therapy) was used in subsequent analyses as a predictor variable.

Descriptive Analyses for Predictor Variables

Victimization Experiences and Traumatic Experiences

As an additional way of describing the data, the predictor and criterion variables were plotted to examine the distribution of each variable.

All of the continuous predictor variables, childhood sexual and physical abuse, interim sexual and physical abuse, and current sexual and physical abuse were nonnormal in shape. Each of these variables was skewed in the zero tail or "no report of abuse." However, even with this skew in the distribution, there was variability in the responses of individuals who had some form of victimization experience, although this variability did differ depending on the type of abuse (to be described below). In other words, individuals who had an abuse history reported varying levels of abuse severity. In addition, different types of victimization were well represented within the sample. Descriptive statistics for the type of abuse experiences are listed in table 2.

Insert Table 2 about here

Physical abuse was the most common type of victimization across the lifespan of these women. At each point during the lifetime history: childhood, after age 16 and before the

current relationship, and within the current relationship, greater than 70 % of the sample experienced some form of physical abuse.

Sexual abuse, although less common than physical abuse, was also represented within this sample; one third of women reported current sexual abuse and greater than one half of women reported childhood sexual abuse. Interim sexual abuse was least common represented by only one fifth of the sample. It's also interesting to note that the range of scores for sexual abuse was more restricted than the range of scores for physical abuse. This restricted range was most notable for interim sexual abuse followed by the range for childhood sexual abuse.

In order to capitalize on the greatest variability of scores and to maximize the number of women who reported each type of abuse experience, subsequent analyses collapsed scores at each of the three developmental periods for childhood abuse to create a childhood physical abuse score and a childhood sexual abuse score. Scores for interim abuse, physical and sexual, and current abuse, physical and sexual, were retained.

In addition to the women's reported victimization history, traumatic experiences were also assessed via the criterion "A" question of the PTSD measure. This PTSD entry level question asked "have you ever had an experience that

Table 2. Frequency and Range for Type of Self-Reported Victimization History within the Total Sample (N = 43).

Type of Victimization	N[a]	% of Sample	Range
Childhood Physical Abuse	31	71%	1 - 28
0 - 6 years	21	49%	1 - 16
7 - 12 years	27	63%	1 - 13
13 - 16 years	19	44%	1 - 10
Childhood Sexual Abuse	23	53%	2 - 19
0 - 6 years	7	16%	6 - 9
7 - 12 years	13	30%	2 - 10
13 - 16 years	11	26%	2 - 8
Interim Physical Abuse	32	74%	1 - 13
Interim Sexual Abuse	9	21%	3 - 8
Current Physical Abuse	35	81%	4 - 72
Current Sexual Abuse	14	33%	2 - 30

[a]N refers to the number of people within the sample who reported a form of abuse, not the number of abuse experiences. For childhood abuse, individuals could report incidents of childhood abuse in more than one developmental stage making the sum of people across developmental stages greater than the total number of people reporting abuse.

was really traumatic, like having your life threatened, seeing someone dead or badly hurt, or having your house burn down?" A portion of these events overlapped with the victimization history and a portion of the events were additional traumatic events.

Participants reported a total of 79 traumatic experiences in response to this question (M = 1.84; SD = .97; range 0 - 4). Women were then asked to pick the two most upsetting events and these events were classified by the type of trauma. A total of 50 events were reported when women were asked to limit their responses to the two most upsetting events with current battering being the most common report (29/50, 58%), childhood physical abuse (7/50, 14%) and other types of traumas (e.g. life threatening illness) (7/50, 14%) being the next most common report, and childhood sexual abuse (3/50, 6%) and rape experiences (3/50, 6%) reported less often.

Descriptive Analyses for Criterion Variables

Plots of the criterion variables yielded predominantly normal curves. The curves for the Omnibus Self-Test, World Assumptions Scale, and Inventory of Interpersonal Problems were statistically significant for normality. Curves for the continuous measure of borderline personality disorder and for the brief symptom inventory did not quite meet statistical significance for normality but were roughly

unimodal. The distribution for the dissociative experiences and PTSD scale were skewed towards the smaller scores. Zero-order spearman correlations were calculated within a 14 X 14 matrix and these correlations are listed in Table 3.

Insert Table 3 About Here

Examining the zero-order correlations yielded a number of surprising findings. First, not only were the victimization experiences minimally inter-correlated, the significant correlations were moderate at best. For victimization experiences, current physical abuse was significantly negatively associated with childhood and interim sexual abuse and significantly positively associated with current sexual abuse. The only other significant correlation was the relationship between interim physical abuse and interim sexual abuse. In addition, there were few significant correlations between the predictor and criterion variables.

The bulk of significant correlations were within the criterion variables. One of the most surprising findings was that childhood sexual abuse, the victimization experience which most of the hypotheses rested upon was not significantly correlated with any criterion variables. The absence of significant correlations for childhood sexual

Table 3. Zero-order Spearman Correlations Between Predictor and Criterion Variables.*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Childhood Sex Abuse	1.00													
2. Childhood Phys. Abuse	.28	1.00												
3. Interim Sex Abuse	.20	-.01	1.00											
4. Interim Phys. Abuse	.03	.28	.31	1.00										
5. Current Sex Abuse	.05	-.05	-.07	-.26	1.00									
6. Current Phys. Abuse	-.31	-.04	-.33	-.00	.46	1.00								
7. Shelter/Outpt.	.05	.09	-.10	-.33	.03	-.25	1.00							
8. Brief Sx. Inventory	-.07	.16	.12	-.18	.25	.26	-.05	1.00						
9. Borderline	.13	.38	.04	.22	-.07	-.10	.16	.44	1.00					
10. Dissociative Sx.	.16	.26	-.22	.27	-.01	.20	.05	.45	.37	1.00				
11. Interpersonal Prob.	.12	.42	-.09	.04	.04	.07	.15	.52	.48	.38	1.00			
12. Omnibus Self-Test	.08	.28	-.14	.18	-.06	-.04	-.22	.73	.32	.39	.60	1.00		
13. World Assumptions	-.03	.36	-.02	.08	-.22	.06	-.30	.39	.37	.14	.51	.70	1.00	
14. PTSD	-.08	.04	.12	-.23	.08	.39	-.27	.57	.07	.25	.29	.43	.24	1.00

*$|r| > .30$, $p < .05$ (two-tailed t test)

abuse was explored in detail with post-hoc analyses. Because childhood sexual abuse was nonsignificantly Table 3. correlated with any of the criterion variables and only one of the predictor variables, this variable was excluded from the multivariate analyses.

Rationale and Justification for Multivariate Test

Canonical correlation was chosen as the most appropriate multivariate analysis for two reasons: (1) the victimization experiences were conceptualized as multivariate in nature and best represented as vectors, comprised of subvectors, and (2) unlike multiple regression, canonical analyses permit a regression of a vector of criterion variables (measures of intra-, interpersonal, and general functioning) on a vector of predictors (life-time history of victimization and treatment status). In addition, canonical correlation analysis permits the researcher to examine both unique contribution to the overall relationship, by examining the canonical "standardized coefficients", as well as overlapping connections with one another, by examining the canonical "structure coefficients." The canonical correlation is a reduction technique which uses pairs of linear combinations of uncorrelated variables (the canonical variates or roots) to maximize the explained between-set variance (Stevens, 1986).

Canonical correlation analysis requires a number of assumptions in order for the accompanying probability levels to be considered valid. Two of the assumptions are commonly associated with many statistical tests (Assumptions #1 and #2) and one is more specific to this particular multivariate procedure (Assumption #3) : (1) Variables under investigation must demonstrate acceptable levels of reliability, (2) The range of variability of the variables should not be restricted, (3) At least one of the sets of variables (predictor or criterion) should have an approximately multivariate normal distribution (Thompson, 1984).

The following analyses were conducted to ensure that the data set met the requirements for proceeding with the canonical correlation analysis. Assumption 1 was met via an examination of the magnitude of the inter-rater reliability coefficients reported within the measures section; all reliability coefficients (with the exception of PTSD) were .7 or higher. Assumption #2 was predominantly satisfied via the preceding examination of distributions and ranges of prediction and criterion variables.

Assumption #3 was examined by running a SAS program provided by the Virginia Tech Statistics department for evaluating multivariate normality (M. Rotelli, personal communication, August, 1993). These analyses revealed that

the predictor variables did not meet criteria for multivariate normality. However, the criterion variables did meet acceptable criteria with an absence of excessive skew (p = .33) and an absence of excessive kurtosis (p = .419). Therefore, this finding satisfied the criteria that "at least one" of the sets of variables must have an approximately multivariate normal distribution.

In addition to the above stated issues, the issue of sample size warrants mentioning. Sources vary in their recommendation of appropriate sample sizes required for stability of canonical coefficients. Suggested subject to variable ratios have ranged from 68/1, 42/1, and 20/1 (cited in Stevens, 1986) to 10/1 (M. Rotelli, personal communication, August, 1993). Given the small number of subjects within this sample along with the large number of variables, the results of the canonical correlation analysis will be viewed with caution and will be used as a springboard for further exploration. Sources (e.g. Stevens, 1986) also recommended interpretation of only one canonical variate when the subject/variable ratio is small.

Canonical Correlation Analysis

The canonical correlation analysis was conducted with each of the six predictor variables (childhood physical; interim physical and sexual abuse; and current physical and sexual abuse; and shelter/nonshelter status) and each of the

seven criterion variables (Brief Symptom Inventory (BSI); Borderline Personality total score (BPD); Dissociative Experiences Scale (DES); Omnibus Self-Test (OST); Interpersonal Problems Inventory (IIP); Current Post-traumatic Stress Disorder (PTSD); World Assumptions Scale (WAS).

Canonical correlation analysis yielded one significant root ($Rc = .71$, $Rc^2 = .51$; Pillai's trace = 1.36, $F(42, 210) = 1.47$, $p = .04$). Essentially, this "model" explains 51% of the variance between the two sets of variables. Of note, the canonical correlation is substantially larger than the zero-order between set correlations. Standardized and structure coefficients are listed in Table 4.

Insert Table 4 about here

As shown in Table 4, the canonical structure correlations, defined as the overlapping contribution of the given variable to the canonical variate, had a positive loading for current sexual abuse (.66) and shelter/nonshelter status (.67) and a negative loading on the world assumptions scale (-.52). These findings suggest that more severe current sexual abuse and treatment seeking status combine and were significantly associated with fewer

Table 4. Canonical Correlation Between Types of Victimization Experiences and Intrapersonal, Interpersonal, and Psychological Distress Outcomes.

Variate 1 (Rc = .71)		
	$C_{stand.}$[a]	C_{struc}[b]
Predictor Variables		
Childhood Physical Abuse	-.27	-.08
Interim Sexual Abuse	-.23	-.07
Interim Physical Abuse	.56	.09
Current Sexual Abuse	.62	.66
Current Physical Abuse	.07	.15
Shelter/Nonshelter	.74	.67
Criterion Variables		
Brief Symptom Inventory	.82	.30
Borderline Personality	.32	.35
Dissociative Experiences	.14	.34
Omnibus Self Test	-.53	-.23
Interpersonal Problems	.28	.13
Post-Traumatic Stress	-.39	-.20
World Assumptions Scale	-.70	-.52

[a]Canonical standardized coefficient considered meaningful if

c≥ .40.

[b]Canonical structure coefficient considered meaningful if c ≥ .40.

shattered assumptions.

The standardized canonical loadings were then examined to reveal the unique, nonredundant contribution to the model. Interim physical abuse was added and shelter/nonshelter status and current sexual abuse were retained. These variables were associated positively with the brief symptom inventory and negatively with the world assumptions scale and on the omnibus self-test. These findings suggest that, controlling for all other victimization variables and outcome variables, treatment seeking status in conjunction with interim physical abuse and more severe current sexual abuse were associated with high levels of current psychological distress and fewer difficulties with distortions of world view and fewer concerns about self.

Although the second root was not statistically significant ($Rc = .59$, $Rc^2 = .35$; $F\ (30, 126) = 1.18$, $p = .26$), the canonical variate and contributing variables yielded some findings of practical interest, although again these results should be viewed with much caution. These findings are listed in Table 5.

Insert Table 5 about here

Table 5. Second Canonical Correlation Between Types of Victimization Experiences and Intrapersonal, Interpersonal, and Psychological Distress Outcomes.

Variate 2 (Rc = .59)		
	C_{stand} [a]	C_{struc} [b]
Predictor Variables		
Childhood Physical Abuse	.46	.56
Interim Sexual Abuse	-.27	.12
Interim Physical Abuse	.47	.55
Current Sexual Abuse	.23	.12
Current Physical Abuse	-.83	-.65
Shelter/Nonshelter	-.08	-.03
Criterion Variables		
Brief Symptom Inventory	-.66	.21
Borderline Personality	.85	.78
Dissociative Experiences	-.02	.21
Omnibus Self Test	.99	.61
Interpersonal Problems	-.11	.48
Post-Traumatic Stress	-.17	-.15
World Assumptions Scale	-.21	.46

[a]Canonical standardized coefficient considered meaningful if

$c \geq .5$.

[b]Canonical structure coefficient considered meaningful if $c \geq .5$.

The canonical structure revealed loadings of all forms of physical abuse, with a positive loading for childhood and interim physical abuse, and a negative loading for current physical abuse. Borderline personality and self-concerns loaded positively as outcome variables.

The standardized canonical variate showed that current physical abuse was retained as a nonredundant variable and was positively associated with the psychological distress measure (-.66) and negatively related to the measure of borderline personality disorder (.85) and the self measure (.99). Thus, controlling for all other victimization and outcome variables, high levels of current physical abuse were negatively associated with borderline personality disorder and with self concerns, while positively associated with increased psychological distress.

Since canonical correlation analysis is an exploratory technique, this analysis was not well suited to the exploration of a priori hypotheses. Therefore, a priori hypotheses were examined next in a series of hierarchical and stepwise multiple regressions. The first set of hypotheses explored the relationship between victimization, defined by developmental onset: childhood abuse, interim abuse, and current abuse; and three types of functioning: general functioning, interpersonal functioning, and intrapersonal functioning.

Multiple Regression Analyses

Victimization and General Functioning

Four hypotheses were posited about the relationship between victimization and general functioning: 1) The level of childhood abuse was hypothesized to be significantly and positively related to composites of general functioning; 2) The level of current abuse was hypothesized to be significantly and positively related to composites of general functioning; 3) Childhood abuse was expected to add significant and unique variance beyond the level of current abuse to the prediction of general functioning; and 4) Childhood abuse by current abuse interaction was expected to add significant and unique variance beyond the level of childhood abuse or current abuse alone to the prediction of general functioning.

The composite measure of general functioning consisted of the sum of the measures of psychological distress, PTSD, borderline personality, and dissociative experiences. The composite measure of childhood abuse consisted of the sum of childhood physical and sexual abuse scores; the composite measure of current abuse consisted of the sum of current physical and sexual abuse scores, and the composite measure of interim abuse consisted of the sum of interim physical and sexual abuse.

The first two hypotheses were explored using stepwise

multiple regression forward selection procedure, entering childhood, interim, and current abuse as predictor variables and the composite of general functioning as the criterion variable. The second two hypotheses were explored using hierarchical multiple regression forcing current abuse into the model (hypothesis #3) and forcing childhood and current abuse into the model (hypothesis #4).

None of the multiple regressions yielded any significant predictors of general functioning.

Victimization and Interpersonal Functioning

Four hypotheses were posited about the relationship between victimization and Interpersonal functioning: 1) The level of childhood abuse was hypothesized to be significantly and positively related to composites of interpersonal functioning; 2) The level of current abuse was hypothesized to be significantly and positively related to composites of interpersonal functioning; 3) Childhood abuse was expected to add significant and unique variance beyond the level of current abuse to the prediction of interpersonal functioning; and 4) Childhood abuse by current abuse interaction was expected to add significant and unique variance beyond the level of childhood abuse or current abuse alone to the prediction of interpersonal functioning.

The composite score for interpersonal functioning

consisted of the sum of the total score of the world assumptions score and the total score of the inventory of interpersonal problems. Predictor variables included shelter/nonshelter and victimization scores, which were collapsed in the same manner described in the previous section. Analyses paralleled the analyses described in the previous section.

Multiple regression analyses revealed that abuse was nonsignificantly related to the composite score of interpersonal functioning regardless of whether the abuse was measured in childhood, current, or by the childhood by current interaction. Shelter/nonshelter status approached but did not meet criteria ($p < .05$) for significance as a predictor.

Victimization and Intrapersonal Functioning

Four hypotheses were posited about the relationship between victimization and Intrapersonal functioning: 1) The level of childhood abuse was hypothesized to be significantly and positively related to composites of intrapersonal functioning; 2) The level of current abuse was hypothesized to be significantly and positively related to composites of intrapersonal functioning; 3) Childhood abuse was expected to add significant and unique variance beyond the level of current abuse to the prediction of intrapersonal functioning; and 4) Childhood abuse by

current abuse interaction was expected to add significant and unique variance beyond the level of childhood abuse or current abuse alone to the prediction of intrapersonal functioning.

The composite score for intrapersonal functioning consisted of the sum of the total score of the omnibus self test. Predictor variables included shelter/nonshelter and victimization scores, which were collapsed in the same manner described in the previous section.

Multiple regression analyses yielded no significant positive relationships for any of the predictors within the stepwise or hierarchical regressions.

Before proceeding to the hypotheses which made predictions based on whether the abuse was sexual or physical, there was one additional hypothesis about the relationship between childhood abuse and adult outcome: 7) Childhood abuse was expected to add significant and unique variance to the prediction of borderline personality disorder. A hierarchical stepwise multiple regression was run with the same three composites of victimization and shelter/nonshelter status. When current abuse was forced into the regression it explained a negligible amount of the variance (.007) and was a nonsignificant predictor. Childhood abuse entered as a near significant predictor (p = .059) explaining 9 % of the variance in dimensional

borderline score.

Abuse-Specific Hypotheses and Outcomes

The last four hypotheses made specific predictions about childhood sexual abuse as a unique predictor of the four subscales of the intra- and interpersonal measures. Since childhood sexual abuse was uncorrelated with these measures these predictions were nullified. However, the regressions were still run with each of the predictor variables specified by type of abuse (childhood physical and sexual abuse, interim physical and sexual abuse, and current physical and sexual abuse), shelter/nonshelter status as exploratory analyses.

The four hypotheses focused on the two subscales from interpersonal measures: the intimacy subscale of the IIP and the self-worth subscale of the WAS; and two subscales from the intrapersonal measure: self-as-agent and identity. In each of the four hierarchical regressions, current level of physical and sexual abuse was forced into the model and the other variables were permitted to enter stepwise. The results are listed in Table 6.

Insert Table 6 about here

As can be seen in Table 6, current physical and sexual

Table 6. Multiple Regression Analyses Predicting Subscales of Intra- and Interpersonal Functioning

Predictor Variables	Criterion Variables	R^2	R^2 Change	Change F	p
FIRST RUN					
Current Abuse (Forced In)	Intimacy	.01	.01	.24	.79
Shelter/Nonshelter		.09	.10	3.96	.05
Child Physical Abuse		.06	.16	2.86	.09
SECOND RUN					
Current Abuse (Forced In)	Identity	.01	.01	.29	.75
Child Physical Abuse		.13	.14	6.15	.02
THIRD RUN					
Current Abuse (Forced In)	Self-as-Agent	.02	.02	.33	.72
Shelter/Nonshelter		.10	,12	4.39	.04
FOURTH RUN					
Current Abuse (Forced In)	Self-Worth	.01	.01	.29	.75
Child Physical Abuse		.12	.13	5.22	.03

abuse were negligible predictors of intimacy, self-worth, self-as-agent, and identity. Childhood physical abuse was a significant unique predictor of the identity subscale and of the self-worth subscale. Shelter/nonshelter status was a significant, unique predictor of self-as-agent and intimacy subscales. Zero-order correlations between the victimization variables and the abuse-specific subscales are listed in table 7.

Insert Table 7 about here

The final part of the results section focuses on an attempt to disentangle the reason why childhood sexual abuse was uncorrelated with any of the outcome variables.

Post-hoc Analyses

Given the null between set correlation for childhood sexual abuse and the criterion measures, which were specifically chosen for their hypothesized relationship with childhood sexual abuse, the childhood sexual abuse variable was examined in further detail.

The variable was first recalculated for each of the developmental periods (0 - 6 years, 7 - 12 years, and 13 - 16 years) to ensure that the composite was not masking significant results at one developmental period. Zero-order correlations again revealed no significant correlations with

Table 7. Zero-order Spearman Correlations between Victimization History and Abuse-Specific Variables.*

	1	2	3	4	5	6	7	8	9	10	11
1. Childhood Sex Abuse	1.00										
2. Childhood Phys. Abuse	.28	1.00									
3. Interim Sex Abuse	.20	-.01	1.00								
4. Interim Phys. Abuse	.03	.28	.31	1.00							
5. Current Sex Abuse	.05	-.05	-.07	-.26	1.00						
6. Current Phys. Abuse	-.31	-.04	-.33	-.00	.46	1.00					
7. Shelter/Outpt.	.05	.09	-.10	-.33	.03	-.25	1.00				
8. Intimacy Subscale	.21	.30	-.10	.13	-.11	.04	.19	1.00			
9. Agency Subscale	-.02	.13	-.06	.15	.13	.01	-.23	.36	1.00		
10. Identity Subscale	.18	.42	-.16	.13	-.04	-.02	.02	.53	.58	1.00	
11. Self-Worth Subscale	-.07	.32	-.23	-.04	-.06	.27	-.30	.39	.47	.5[illegible]	1.00

*$|r| > .30$, $p < .05$ (two-tailed t test)

the criterion variables. Next, because of the relative restriction of variability
within this variable, the variable was dummy coded as a dichotomous measure, "sexual abuse occurred in childhood (1) or sexual abuse did not occur within childhood (0)." Zero-order correlations again revealed no significant correlations with the criterion variables. Correlations also proved nonsignificant when the variable was dummy coded for each developmental stage.

Next, the components of the sexual abuse variable were examined to determine the quality/severity of these sexual abuse experiences. More than 50% of the sexual abuse experiences within each developmental stage were characterized by a perpetration by a family member, force, more than a single event occurrence, and negative feelings about the abuse. Injury, use of a weapon, multiple perpetrators, and duration of abuse for longer than one year were much less common. Perceived life threat was fairly common ranging from 46% - 71%. The frequency of qualitative characteristics of the abuse are listed in Table 8.

Insert Table 8 about here

Because of the relative infrequency of the duration variable, which measures the chronicity of the abuse

Table 8. Frequency and Percent of Qualitative Aspects of Childhood Sexual Abuse for Each Developmental Time Period

Characteristic	0-6 YEARS (N = 7)	7-12 YEARS (N = 13)	13-16 YEARS (N = 11)
Relationship	6 (86%)	8 (62%)	7 (64%)
Force	6 (86%)	8 (62%)	8 (73%)
Duration	5 (71%)	5 (38%)	4 (36%)
Frequency	6 (86%)	8 (62%)	6 (55%)
Mult. Perp.	4 (43%)	3 (23%)	5 (45%)
Subj. Response	7 (100%)	9 (69%)	10 (91%)
Weapon	0 (0%)	2 (15%)	1 (9%)
Injury	1 (14%)	1 (8%)	3 (27%)
Life Threat	5 (71%)	6 (46%)	6 (55%)

experience, this aspect of the abuse experience was examined in further detail. The frequency of childhood sexual experiences were then examined to determine the number of individuals who experienced the onset of childhood sexual abuse within more than one developmental periods. Seven out of the total 23 individuals (30%) reporting childhood sexual abuse reported the onset of childhood sexual abuse within two or more developmental periods, leaving 70% of individuals reporting the onset of childhood sexual abuse within one developmental period. Childhood physical abuse was examined for comparison and the findings were almost completely reversed. Twenty-five out of the 31 individuals reporting childhood physical abuse (81%) reported experiences within two or more developmental periods, leaving 19% of individuals reporting childhood physical abuse within one developmental age period. Chronic childhood physical abuse, like childhood physical abuse was significantly correlated with the interpersonal criterion variables, inventory of interpersonal problems ($\underline{r}$ = .34, $\underline{p}$ < .03) and world assumptions scale ($\underline{r}$ = .34, $\underline{p}$ <.03), the intrapersonal criterion variable at trend level ($\underline{r}$ = .28, $\underline{p}$ = .067) and one measure of psychological distress, borderline personality disorder ($\underline{r}$ = .41, $\underline{p}$ < .007). Chronic childhood sexual abuse, like childhood sexual abuse was nonsignificantly correlated with any of the criterion

variables. Hierarchical and stepwise multiple regressions were rerun with chronic childhood physical abuse, chronic childhood sexual abuse, childhood physical abuse, and childhood sexual abuse as predictors of the subscales hypothesized to be specifically related to chronic childhood (sexual) abuse. These regressions are listed in Table 8.

Insert Table 9 about here

Using stepwise regression, forward selection procedure, chronic physical abuse significantly predicted the identity subscale, explaining 16% of the variance, and predicted the intimacy subscale at the trend level, explaining 7 % of the variance. When childhood physical and sexual abuse were forced into hierarchical regression equations, chronic physical abuse was rendered a nonsignificant predictor for both subscales. None of the childhood or chronic abuse variables significantly predicted the agency subscale. Lastly, in a stepwise regression, childhood physical abuse, rather than chronic physical abuse, significantly predicted the self-worth subscale of the assumptive world measure, predicting 12% of the variance.

Table 9. Stepwise and Hierarchical Multiple Regression Analyses With Chronic Childhood Physical and Sexual Abuse and Childhood Physical and Sexual Abuse Predicting Subscales of Intra- and Interpersonal Functioning

Predictor Variables	Criterion Variables	R^2	R^2 Change	Change F	p
FIRST RUN					
Chronic Physical Abuse (Stepwise)	Intimacy	.07	.07	3.04	.08
SECOND RUN					
Childhood Sexual and Physical Abuse (Forced In)	Intimacy	.07	.07	1.48	.24
Chronic Physical Abuse					NS
THIRD RUN					
Chronic Physical Abuse (Stepwise)	Identity	.16	.16	8.01	.007
FOURTH RUN					
Childhood Sexual and Physical Abuse (Forced In)	Identity	.13	.13	2.97	.062
Chronic Physical Abuse	Identity				NS
FIFTH RUN					
(Stepwise)	Agency				NS

Table 9 contd. Stepwise and Hierarchical Multiple Regression Analyses Predicting Subscales of Intra- and Interpersonal Functioning

Predictor Variables	Criterion Variables	R^2	R^2 Change	Change F	p
SIXTH RUN					
Childhood Sexual and Physical Abuse (Forced In)	Agency				NS
SEVENTH RUN					
Childhood Physical Abuse (Stepwise)	Self-worth	.12	.12	1.90	.02
EIGHTH RUN					
Childhood Sexual and Physical Abuse (Forced In)	Self-worth				NS

Discussion

The present study was designed to expand the examination of abuse-related outcomes beyond the usual examination of responses reflecting general psychological distress, within a sample of battered women. Along these lines, this study posited that certain intrapersonal, interpersonal, and affective processes would be differentially associated with childhood victimization. These hypotheses received some support.

Before exploring the findings related to the specific hypotheses, the first part of the discussion section describes the sample characteristics. The discussion then examines findings related to specific hypotheses. Finally, the discussion examines implications of the results for methodology and future research.

Victimization Characteristics Within the Sample

Choosing battered women as a model population to explore these hypotheses squarely rested upon the assumption that this sample would report varying frequencies and severity of lifetime victimization histories.

Incidence of childhood physical and sexual abuse were quite common within this sample with almost three-quarters of the women reporting some form of childhood physical abuse and almost one-half of the sample reporting some form of childhood sexual abuse. This reporting rate was higher than

that reported by Ogland-Hand et al. (1991) who found that roughly one third of their battered women reported histories of childhood physical abuse, while approximately two-fifths of the sample reported histories of childhood sexual abuse. This discrepancy is easily explained by examining the different methodologies for assessing childhood victimization in the Ogland-Hand, et. al study and the present study.

Ogland-Hand et al. (1991) examined childhood victimization in a post-hoc manner by examining participant's response to the criterion "A" question of the SCID PTSD measure, which asked participants to report experiences which they labeled as "traumatic." Interestingly, since the present study also used the SCID PTSD measure, participants' responses to the criterion "A" question can be directly compared. Participants responses on this measure showed the expected marked decrease in reporting of childhood physical (14%) and sexual (6%) abuse when compared to their reporting rates following specific, detailed questions describing such experiences.

These findings highlight the importance of systematically assessing for victimization experiences using specific operational definitions of the experiences rather than relying on broad, nonspecific terms which require that the participant make a judgement about such experiences,

i.e. that the experience was "traumatic" or that the experience was "abusive". The importance of assessing victimization using behavioral terminology has been discussed at length in the rape and childhood sexual abuse literature (see Resnick, Falsetti, Kilpatrick & Freedy, 1992 for a review).

To this author's knowledge, there is no existing comparison study which has examined the incidence of interim victimization in a sample of battered women. Interim physical abuse was reported by virtually three-quarters of the sample and interim sexual abuse was reported by one-fifth of the sample. Taking both childhood physical and interim physical abuse reports together, a substantial portion of this sample were experiencing physical abuse at some time during childhood and some time during young adulthood. These findings suggest that, even prior to the current relationship, physical abuse had a fairly longstanding, chronic presence within many of these women's lives.

In addition to historical abuse, women in this study were experiencing some form of current abuse in the past year. Eighty percent of the women were experiencing some form of physical abuse at the hands of their partner and one third of the sample reported experiences of current sexual abuse by their partner. This frequency of marital/partner

rape falls squarely within the reporting rates of other shelter samples (32-59%) (Sheilds, Resick, & Hanneke, 1990).

This lifetime assessment of victimization supported the assumption that battered women have very complex histories when one examines the incidence of victimization. This study also examined the severity of victimization experiences using continuous measures of severity. Surprisingly, victimization experiences occurring at one developmental time period (childhood, interim, current) were, with two exceptions, nonsignificantly correlated with victimization experiences occurring within another developmental time period. At first glance, the absence of such inter-relationships given the high prevalence of abuse was confusing.

The absence of such relationships suggests that, at least at the univariate level, the lineage of abuse was not so clear cut. That is, those who reported the most severe form of abuse at one developmental time period were not consistently reporting the most severe form of abuse later in life. Of course, the small sample size and the restricted range on some of the victimization variables, particularly interim sexual abuse, may also account for the nonsignificant findings. It's also possible that methodological issues associated with the creation of the abuse composite scores may be affecting the pattern of

findings. These methodological issues will be further discussed in a more general discussion of methodological issues.

The two exceptions to these null relationships were the inverse relationship between severity of childhood and interim sexual abuse and the level of current physical abuse. That is, the women who were most severely sexually abused in childhood and women who were most severely abused between childhood and the current relationship were currently reporting the least serious physical abuse.

This finding may be explained by a number of possibilities. First, women with more severe sexual abuse histories may have a lower threshold for "acceptable" physical abuse before they elect to leave. In this way, the historical sexual abuse may promote taking active steps to extricate oneself from a current dangerous situation. Wagner, Linehan, and Kehrer (1991) found, within a sample of women meeting criteria for borderline personality disorder (BPD), that BPD women with sexual abuse histories were more likely to use active means and less likely to report inappropriate means (e.g. self-cutting, etc) for problem solving within interpersonal situations. While this later sample both differed diagnostically from the present sample and differed in that they were not specifically reporting on attempts to deal with interpersonal violence, these findings

suggest that there may be some positive effects on problem-solving following sexual abuse.

On the other hand, it's also possible that this relationship resulted from the sampling strategy. Follingstad, Laughlin, Polek, Rutledge, and Hause (1991) used cluster analysis to examine typologies of a large sample of battered women. They found that battered women who experienced the most frequent and severe current abuse and battered women experiencing a worsening of severity of abuse over time were more likely to use shelter resources. With the current sample predominantly consisting of women seeking shelter services, women in this study most likely represent an oversample of women experiencing more severe forms of current physical abuse. It's also possible that women experiencing the most severe forms of historical sexual abuse may be <u>less</u> <u>likely</u> to go to battered women shelters if they are experiencing current abuse. That is, women with more severe historical sexual abuse experiences may pursue other options such as psychiatric hospitalization in the wake of current abuse because the exacerbation of psychological distress (associated with the historical sexual abuse) may preclude the level of functioning required for living in a shelter. Examination of the childhood sexual abuse characteristics within this study revealed a relative underrepresentation of experiences more commonly

reported by clinical subjects including duration longer than one year and multiple perpetrators (cited in Briere, 1992). Therefore, the current sample may represent an oversample of women who experienced "milder" forms of childhood sexual abuse, paired with an oversample of severe forms of current physical abuse, resulting in the inverse relationship. Again, these speculations are very tenuous given the small sample size and the small magnitude of the correlation.

Of note, within developmental periods, the correlations, albeit modest, were positive and two of the three correlations (interim sexual and physical abuse, current sexual and physical abuse) were statistically significant. These results generally suggest that physical and sexual abuse were co-occurring with any developmental time period. Brown and Anderson (1991) within a large psychiatric inpatient sample, also found that women who were being physically abused in childhood were at increased risk of childhood sexual abuse, compared to women without childhood physical abuse. This finding suggests that for women, physical and sexual abuse may share similar risk factors and similar etiologic pathways. The overlap of physical and sexual abuse will be discussed in further detail later in the paper.

In sum, the zero-order correlations and descriptive statistics for the victimization experiences show that

multiple victimization experiences were quite common. Sexual abuse, while reported by approximately half the sample, appeared to be less chronic than the physical abuse, although there was a trend for the two types of experiences to co-occur during any one particular life period. The lineage of abuse was complex and experiences between different developmental periods were relatively unrelated with the exception that childhood and interim sexual abuse were associated with less severe forms of current physical abuse.

Canonical Correlation Analysis

Since the standardized coefficients reflect nonredundant effects of the type of abuse and the associated symptomatology, I will focus on a discussion of these findings.

The standardized coefficient results for the first root suggested that there was a substantial, unique relationship between retrospective reports of interim physical and current sexual abuse, and shelter/nonshelter status which was positively related to the global distress score on the brief symptom inventory and negatively related to the total score on the assumptive world scale and the omnibus self test.

These findings suggest that, controlling for the other victimization variables, historical experiences of interim

physical abuse combine in a unique way with experiences of current sexual abuse and this combination influences the choice of support services (outpatient vs. shelter). Specifically, this combination of abuse was related to seeking outpatient services. This combination of victimization and outpatient services in turn was associated with increased global psychological distress as measured by the BSI.

Interestingly, women's level of psychological distress and pursuit of outpatient therapy was associated with proximate sexual rather than physical abuse. Comparatively, in a battered women's shelter sample, Sheilds, Resick, and Hanneke (1990) found similar increases in psychological distress when they compared women who were experiencing marital rape and battering compared with women who were experiencing battering, only. This combined abuse group scored significantly higher on most subscales of the BSI, including somatization, obsessive-compulsiveness, interpersonal sensitivity, hostility, paranoid ideation, psychoticism, and depression. However, Sheilds and colleagues did not assess whether women experienced any abuse historically.

Taking both sets of findings together, the experience of partner sexual abuse may potentiate responses of psychological distress in both shelter and outpatient

therapy settings when paired with physical abuse. In the outpatient portion of sample this connection was with physical abuse that was experienced before the sexual abuse and within a shelter sample this connection was with physical abuse experienced concurrently with the sexual abuse (i.e. Sheilds et al., 1990). These findings very tentatively suggest that the blending of sexual and physical assault may be particularly deleterious for global psychological functioning.

This combination of physical and sexual victimization and outpatient services was also associated with decreased total scores on the assumptive world measure and the total score on the omnibus self test. Low scores on these measures reflect a stable world view and fewer self problems, which are thought to be etiologically linked to childhood experiences, specifically consistent, child-focused, caregiving practices (e.g. Janoff-Bulman, 1989). If the two victimization experiences occurred without severe childhood victimization, these findings would lend some support to the contention that individuals without a childhood victimization experience had views of themselves and views of the world which were more resilient to the "later" victimization, therein resulting in the lower scores. Examination of the zero-order correlations revealed that current sexual abuse had almost no relationship with

either childhood sexual or physical abuse, while interim physical abuse had a relationship, at the trend level, with childhood physical abuse. These findings appear very tentatively to suggest that controlling for other types of victimization experiences, women seeking outpatient services who experienced mid life physical and current sexual abuse, were more likely to present with relatively healthier views of the world and of themselves, in spite fact that they were more symptomatic.

Because of the small sample size the implications of these results are very tenuous. It's very likely that if this study were replicated with a larger sample that the pattern of relationships would be different.

The limitations of the sample size and the small subject to variable ratio, suggests that interpretation of the second root is extremely tentative. Very briefly, controlling for all other forms of victimization, current physical abuse was positively associated with psychological distress and negatively related to borderline personality disorder and the self-measure. Level of current physical abuse being a recent stressor is likely to be associated with an increase in symptomatology associated with current adaptation, i.e. general psychological distress. Current physical abuse is negatively associated with the self-measure and the measure of BPD, both of which were

hypothesized to be positively associated with severity of childhood victimization. Examination of the zero-order correlations revealed that current physical abuse was either not associated with childhood victimization, as in the case of childhood physical abuse, or was associated with less severe childhood abuse, as in the case of childhood sexual abuse.

Taking the findings of the canonical analysis together, recent experiences of abuse alone (in the case of current physical abuse) or in conjunction with a mid life experience of physical abuse (in the case of current sexual abuse), were uniquely related to increased psychological distress. The more recent abuse experiences in turn were associated with fewer problems with some forms of intra- and interpersonal functioning, including healthier views of self, the world, and fewer symptoms of BPD. These findings suggest that the type of outcome may be differentially associated with the type, onset, and combination of abuse experiences.

The inverse relationship between current abuse and at least some of the proposed intra- and interpersonal variables was contrary to the predicted positive relationship between these domains and childhood victimization. However, these findings do not answer the question about the specific role that childhood

victimization plays in affecting intra-, interpersonal, and general functioning. These relationships were specifically explored in the hypothesis-driven analyses which are discussed next.

Victimization and Three Modes of Functioning

None of the composite scores of childhood victimization, current victimization, or the childhood by current interaction were significantly related to the composite scores of general, interpersonal, or intrapersonal functioning. Part of the reason for these null results could be explained by the composite scores. Collapsing across sexual and physical victimization within each developmental period could mask effects of each type of victimization. In this way, different outcomes may be more linked to the type of abuse experienced rather than to the developmental onset. However, the null results could also be explained by the grouping of the criterion variables. Variables were grouped as general, interpersonal, or intrapersonal functioning based on the theorized role they play in individual functioning. In this way, collapsing the variables could be masking effects of each type of functioning. Masking effects by combining variables appears particularly plausible when one considers that each variable making up the composite score was itself an amalgamation of a variety of subscale scores.

In addition, as was partly suggested by the pattern of results found in the canonical analysis, there may be better ways of grouping victimization and outcome variables rather than by developmental onset (for victimization) or hypothesized functional role (for criterion variables). One way this could be done, empirically, would be to gather data on a larger sample and to do a principal components analysis on the predictor and criterion variables. These groups of variables could then be explored via the multiple regressions.

There was one final hypothesis using developmental composites of physical and sexual victimization: childhood victimization was hypothesized to be uniquely associated with dimensional borderline score, controlling for current victimization. Childhood victimization was nearly significant (p =.059) as a unique predictor. The association between childhood victimization and BPD has been demonstrated in a number of studies, specifically targeting psychiatric inpatients with borderline personality disorder (e.g. Weaver & Clum, 1993).

The present study generalizes the childhood trauma-BPD relationship to a nonpsychiatric sample with predominantly subclinical BPD; only three women met diagnostic criteria for BPD (5 out of 8 criteria) and two women met diagnostic criteria for probable BPD (4 out of 8 criteria).

Accordingly, the percentage of variance in BPD explained by childhood physical and sexual abuse in the present study (6%) was significantly smaller than the 59% of BPD variance explained by physical abuse, sexual abuse, and current level of depression in the Weaver and Clum (1993) study. Nevertheless, this finding strengthens the childhood trauma-BPD link as an etiological correlate.

Of note, all existing studies which have examined the BPD-childhood trauma relationship (Herman, Perry & Van der Kolk, 1989; Ogata, Silk, Goodrich, Lohr, et al. 1990; Weaver & Clum, 1993; Westen, Ludolph, Misle, Ruffins, Block, 1990; Zanarini, Gunderson, Marino, Schwartz, & Frankenburg, 1989) failed to assess current or interim victimization. In this way, we could better examine areas of victimization continuities/discontinuities between the two samples.

To my knowledge, Sheilds and colleagues (1990) have the only other study which systematically examined the prevalence of BPD, albeit by self-report rather than structured interview, within a sample of battered women. These researchers found that women who experienced marital rape and battering had significantly higher mean BPD scores, defined as a continuous summation of symptom scores, compared to battered women only, who had significantly higher mean BPD scores, compared to nonabused women. Similar to the present study, these findings suggest that

symptoms of BPD do exist within battered women samples. However, these researchers did not assess historical abuse, making it possible that current abuse was a proxy for childhood abuse.

The remaining hypotheses posited specific relationships between types of victimization and subscales of the outcome measures.

Abuse-Related Outcomes

The abuse-related outcomes specifically hypothesized relationships between childhood sexual abuse and measures of intimacy, identity, self-agency, and self-worth. These hypotheses emerged from an examination of the inter-locking developmental processes associated with self, affective, and cognitive development. Chronic sexual abuse was thought to differentially impact these domains because of the dynamics associated with the abuse experience. These dynamics included difficulty separating self from other (affecting self-agency), an increased focus on external vigilance rather than internal development (affecting identity), and violation of a trusted relationship (affecting intimacy) in a particularly stigmatizing way (affecting self-worth). As noted in the results, sexual abuse was nonsignificantly related to criterion variables in the univariate or multivariate analyses.

Part of the reason for these null results may lie in

the characteristics of the childhood sexual abuse within this sample. Recall that the hypotheses regarding the deleterious effects upon developing processes stipulated that the abuse experiences be chronic in nature. Within this sample, examination of the abuse characteristics revealed that childhood physical abuse was more frequently chronic in nature, defined as continuing over more than one developmental period, compared to childhood sexual abuse.

Finkelhor and Browne (1988), in the area of sexual abuse, have emphasized the importance of examining the number of developmental periods through which the individual is abused, rather than merely examining age of onset. Regardless of the type of abuse, with increased chronicity, the individual experiences more cumulative abuse, is having experiences which may impede with accomplishing different and varied developmental tasks, and is typically experiencing more severe types of abuse. That is, children who have been physically abused for longer periods of time are more likely to have more serious injuries as the abuse escalates over time, and children who have been sexually abused for longer periods of time are more likely to have experienced more sexual intrusion, including sexual intercourse and multiple perpetrators (Finkelhor & Browne, 1988). Therefore, it's possible that for developing intrapersonal, interpersonal, and affective systems,

chronicity of the abuse experience may be a pathogenic dynamic that is common to childhood physical and sexual abuse.

Regressions predicting specific subscales which were hypothesized to reflect abuse-related intra- and interpersonal processes, were run with each of the victimization experiences and shelter/nonshelter status as predictors. Controlling for level of current physical and sexual abuse, childhood physical abuse was a significant, unique predictor of the identity subscale, self-worth subscale, and a predictor at the trend level for the intimacy subscale. When chronic physical and sexual abuse were included with childhood physical and sexual abuse as the predictors, chronic physical abuse significantly predicted the identity subscale and predicted the intimacy subscale at the trend level. However, chronic physical abuse did not significantly predict outcomes beyond the level of childhood physical and sexual abuse, suggesting that the explanatory power of the physical abuse variable includes more than chronicity of the experience, alone.

These findings suggest that physical abuse may have similar effects on the hypothesized sexual abuse specific domains, particularly when such experiences become more chronic in nature. A recent review of the long-term consequences of physical abuse (Malinosky-Rummell & Hansen,

1993) revealed many long-term outcomes which overlap with outcomes for childhood sexual abuse, including substance abuse, self-injurious behavior, general psychological distress, interpersonal problems, and functional (academic and vocational) difficulties. Furthermore, Cicchetti and Olsen (1990) have specifically reported on the effects of childhood physical abuse upon capabilities for affective expression, development of self, and social-cognitive development.

Very briefly, these findings raise some questions about the contention that effects may be specific to a particular kind of abuse. Over the years, Finkelhor (1979; 1990) and others have argued strenuously for the distinction between childhood physical and sexual abuse, noting stressor-related dynamics, such as traumatic sexualization, which may be unique to childhood sexual abuse. On the other hand, are outcomes actually related to a subset of common dynamics underlying all forms of abuse? Briere (1992) has recently argued for a consideration of dynamics common to all forms of childhood maltreatment. These dynamics, referred to collectively as psychological maltreatment, include parental behavior which is rejecting, degrading or devaluing, terrorizing, isolating, corrupting, exploiting, unresponsive emotionally, or more generally unreliable and inconsistent in parenting.

Briere and Runtz (1990) using multivariate analyses within a large sample of college women examined the question of unique versus common effects following psychological abuse, physical abuse, and sexual abuse. These researchers found some evidence for unique effects: parental psychological abuse was associated with subsequent low self-esteem, childhood sexual abuse was associated with subsequent dysfunctional sexual behavior, and physical abuse was associated with subsequent anger/aggression. However, there was also evidence for overlapping effects: physical and psychological abuse tended to go together and they were associated with difficulties in esteem, anger/aggression, and dysfunctional behavior.

Taking these results together with the findings in this study, it is likely that there are both effects resulting from dynamics common to different forms of abuse and results which may be more specific to different forms of abuse. Abuse-specific results may play more of a primary role after the abuse reaches a certain level of intensity or chronicity. Of course, a discussion of unique and overlapping effects of different forms of abuse may be purely academic when one considers that, particularly for some populations of women (e.g. psychiatric inpatient, battered), individuals are often experiencing comorbid psychological, sexual, and physical abuse, making it

particularly difficult to tease effects apart.

Before leaving the discussion of the multiple regression analyses, a brief comment on the null findings. Childhood physical abuse was a nonsignificant predictor of self-as-agent and a predictor at the trend level of intimacy subscale. Shelter/nonshelter status significantly predicted both of these subscales, controlling for current level of physical and sexual abuse. This relationship highlights the importance of examining sample characteristics when evaluating outcome. Zero-order correlations between treatment status and each of these subscales were nonsignificant suggesting that treatment status may be serving as a proxy for some covarying third variable, resulting in the significant relationship. Recall that shelter status was associated with less time with partner, more recent separation from partner, less previous therapy, and more shelter days. Any one of these or combination of these variables could serve as possibilities.

This study raises some interesting issues regarding the methodology in doing research on interpersonal violence.

Methodological Issues and Other General Findings

Findings within this study raise a number of methodological questions which need to be addressed in future victimization research. First, how successful was the assessment of lifetime victimization history?

Regrettably, assessing lifetime victimization is incredibly complex and tedious given the number of different ways that individuals can and are victimized. One area of victimization was not adequately captured within the current mode of assessment. Specifically, there were a number of women who were currently in a physically or sexually abusive relationship but they reported that the physical or sexual abuse had dramatically decreased within the past year. Therefore, these women may have experienced a significant amount of relatively recent physical or sexual abuse but because it was not in the past year it was not included in the current abuse variable and because it was within the current relationship it was not included in the interim abuse variable. Similarly, Kilpatrick and colleagues (1993, personal communication) have decision rules within their large scale epidemiological interview to decrease the number of victimization questions. For example, they ask women to report on details related to their first rape and their worst rape and then to report on details related to their worst physical assault. Then, they ask women to report on their first physical assault if and only if they did not have a first rape. A "true" lifetime victimization history where every experience is assessed is extremely time consuming and can be very stressful for the participant. Nevertheless, research has got to continue to assess more

than one type of victimization. A more thorough assessment may also clarify contradictory findings resulting from studies utilizing single abuse assessments.

A second methodological point, related to the assessment of victimization, is the question of how best to quantify the victimization experiences. This study emphasized the importance of continuous scores as a way of representing severity of victimization experience. Historically, studies have relied on dichotomous variables or have relied on rather arbitrary distinctions between mild, moderate, and severe victimization. However, the present coding system yielded little variability in victimization scores, resulting in skewed distributions. Part of the reason for these skewed distributions could be that the sample size was relatively small. However, it's also possible that the coding scheme put a cap on the amount of variability, particularly when one is sampling from a population chosen for a traumatic event (battering). Methods for quantifying highly complex experiences such as sexual and physical abuse need to be developed and validated. Findings in this study suggested that frequency and duration, i.e. chronicity, is an important factor for consideration in this scheme.

The issue of <u>who</u> to sample to assess victimization and its effects is an important methodological question.

Clearly, treatment seeking or institutionalized populations, e.g. prison samples, psychiatric inpatients, college women, sheltered battered women, provide convenient populations to study. However, comparative epidemiological research (National Womens Study) suggests that these populations not only have higher rates of abuse but also have abuse experiences that differ from experiences within the population at large (Kilpatrick & Resnick, 1991).

In the national women's study (National Victim Center, 1992), out of a total of 3,237 women, 43 (1.3%) reported a past year physical assault, by a romantic significant other (husband, boyfriend, or ex-husband). Given the relatively low base rate of partner battering (1.3 %), these findings highlight the difficulty of getting large numbers of representative samples of battered women. Of note, this study defined physical assault as an aggravated physical attack in which the "individual intended to kill or seriously injure you." With this rather serious definition of physical assault its likely that this is an underestimate of the total number of women physically assaulted by their partners. A potential for underestimating partner abuse may also be explained by women being less likely to think that someone they know is trying to "injure or kill them," even when they receive lifethreatening or serious injuries.

Of these 43 women, only 3 (7%) reported a history of

childhood physical abuse, while 8 (19%) reported a history of completed childhood rape, and 8 (17.6%) reported a history of childhood sexual molestation or attempted childhood rape. The incidence of childhood abuse within this representative sample suggests that, compared to the treatment seeking sample, there is much less historical childhood abuse. This finding is particularly true for the childhood physical assault, although the definition of childhood physical assault suffers from the same limitation as the definition of physical assault in adulthood. It's somewhat difficult to directly compare these samples because we do not know how many of these representative battered women sought treatment at shelter or outpatient services. Nevertheless, this comparison suggests that historical abuse may play an important role in the complexion of different samples.

Select samples and epidemiological samples each have their strengths in that each type of sample allows us to examine a particular piece of victimization and its effects. If researchers use more consistency in methodology, characteristics and outcomes of victimization experiences can be better compared and contrasted across samples.

In conclusion, this study represented an attempt to use developmental theory to choose instruments to broaden the search for long-term outcomes following childhood abuse.

This attempt was met with mixed results. General psychological distress continues to be an important measure of psychological adaptation. It appears to be particularly linked to the severity of more recent victimization, specifically current sexual abuse and interim physical abuse. Difficulties with identity development, low self-worth, and (at the trend level) difficulties with intimacy and symptoms of borderline personality received some support as long-term outcomes following childhood abuse,specifically experiences of chronic childhood physical abuse. These findings provide some additional support for chronic childhood abuse's association with difficulties in the intra- and interpersonal realms.

Simple correlations yielded a significant relationship between current level of physical violence and current symptoms of PTSD. This finding has been replicated in other samples of battered women. For example, Ogland-Hand et al. (1991) found that life-threatening violence and high exposure were significantly correlated with PTSD intensity levels.

The measure of dissociative symptoms was nonsignificantly correlated with any of the victimization variables at the univariate or multivariate level. This lack of findings could be explained in part by the relatively narrow range of responses within this

predominantly nonpsychiatric sample of subjects (Carlson & Putnam, 1993). The concept of alexithymia may still be an important clinical and theoretical outcome for consideration, but researchers will face the continued challenge of reliably measuring this construct.

The field of interpersonal violence must continue to assess multiple victimization experiences. In addition, we must continue to explore more varied outcomes using theory as a guide to these outcomes and their proposed mechanisms. Only with this directive, can we hope to develop treatments aimed at symptom remediation and prevention of future victimization.

Summary

The present study was the first of its kind to examine lifetime sexual and physical victimization histories within a shelter and outpatient sample of battered women. Lifetime victimization history and treatment seeking status (shelter vs. outpatient) were then used as predictors for three groups of variables: general psychological distress, intrapersonal functioning, and interpersonal functioning.

Generally, participants reported complex and varied victimization histories. Sexual and physical victimization were significantly or near significantly correlated with one another within any developmental period. Across the lifespan, victimization experiences were generally not correlated suggesting that there was no clear or simple lineage of abuse. General psychological distress emerged as an important outcome measure and functioning in this domain was specifically linked to more recent abuse (current sexual and interim physical abuse, and current physical abuse). Several intra- and interpersonal measures were significantly and positively associated with chronic childhood physical abuse. These findings provide support for continued examination of lifetime abuse histories and sequelae within intra- and interpersonal domains. Pathways for differential outcomes and associated developmental processes were discussed.

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Appendix A

SUMMARY SHEET FOR THE FES

PARTICIPANT NUMBER: _____

DATE: _____

CHILHOOD ABUSE

SEXUAL ABUSE

0 - 6 YEARS

(1) Sexual abuse Occurred: Yes ("1"), No ("0"): _____

(2) Relationship: Family ("1"), Nonfamily ("0"): _____

(3) Force: Yes ("1"), No ("0"): _____

(4) Duration: > 1 year ("1"), < 1 year ("0"): _____

(5) Frequency: >1 time ("1"), 1 time only ("0"): _____

(6) Multiple Perpetrators: >1 perp. ("1"), 1 perp. ("0"): _____

(7) Subjective Response: Negative ("1"), Neutral or Positive ("0"): _____

(8) Weapon: Yes ("1"), No ("0"): _____

(9) Injury: Yes ("1"), No ("0"): _____

(10) Perceived Life Threat: Yes ("1"), No ("0"): _____

TOTAL: _____

7 - 12 YEARS

(1) Sexual abuse Occurred: Yes ("1"), No ("0"): _____

(2) Relationship: Family ("1"), Nonfamily ("0"): _____

(3) Force: Yes ("1"), No ("0"): _____

(4) Duration: > 1 year ("1"), < 1 year ("0"): _____

(5) Frequency: >1 time ("1"), 1 time only ("0"): _____

(6) Multiple Perpetrators: >1 perp. ("1"), 1 perp. ("0"): _____

(7) Subjective Response: Negative ("1"), Neutral or Positive ("0"): _____

(8) Weapon: Yes ("1"), No ("0"): _____

(9) Injury: Yes ("1"), No ("0"): _____

(10) Perceived Life Threat: Yes ("1"), No ("0"): _____

TOTAL: _____

13 - 16 YEARS

(1) Sexual abuse Occurred: Yes ("1"), No ("0"): _____

(2) Relationship: Family ("1"), Nonfamily ("0"): _____

(3) Force: Yes ("1"), No ("0"): _____

(4) Duration: > 1 year ("1"), < 1 year ("0"): _____

(5) Frequency: >1 time ("1"), 1 time only ("0"): _____

(6) Multiple Perpetrators: >1 perp. ("1"), 1 perp. ("0"): _____

(7) Subjective Response: Negative ("1"), Neutral or Positive ("0"): _____

(8) Weapon: Yes ("1"), No ("0"): _____

(9) Injury: Yes ("1"), No ("0"): _____

(10) Perceived Life Threat: Yes ("1"), No ("0"): _____

TOTAL: _____

PHYSICAL ABUSE

0 - 6 YEARS

(1) Brother/Sister did this to me: 0 - 6 _____

(2) Mother did this to me: 0 - 6 _____

(3) Father did this to me: 0 - 6 _____

TOTAL _____

7 - 12 YEARS

(1) Brother/Sister did this to me: 0 - 6 _____

(2) Mother did this to me: 0 - 6 _____

(3) Father did this to me: 0 - 6 _____

TOTAL _____

13 - 16 YEARS

(1) Brother/Sister did this to me: 0 - 6

(2) Mother did this to me: 0 - 6 _____

(3) Father did this to me: 0 - 6 _____

TOTAL _____

INTERIM ABUSE: 17 YEARS TO ONSET OF CURRENT RELATIONSHIP

SEXUAL ABUSE:

(1) Sexual Abuse Occurred: Yes ("1"), No ("0"): _____

(2) Relationship: Acquaintance or Family ("1"),

Stranger ("0") _____

(3) Force: Yes ("1"), No ("0"): _____

(4) Duration: >1 year ("1"), < 1 years ("0"): _____

(5) Frequency: > 1 time ("1"), < 1 time ("0"): _____

(6) Multiple Perpetrator: >1 perp. ("1"), 1 perp. ("0"): _____

(7) Subjective Response: Negative ("1"), Neutral or Positive ("0"): _____

(8) Weapon: Yes ("1"), No ("0"): _____

(9) Injury: Yes ("1"), No ("0"): _____

(10) Perceived Life Threat: Yes ("1"), No ("0"): _____

TOTAL: _____

PHYSICAL ABUSE

(1) Brother/Sister did this to me: 0 - 6: _____

(2) Mother did this to me: 0 - 6: _____

(3) Father did this to me: 0 - 6: _____

(4) Boyfriend/Husband did this to me: 0 - 6: _____

TOTAL: _____

AGGRAVATED ASSAULT

(1) Aggravated assault occurred: Yes ("1"), No ("0"): ___
(2) Weapon: Yes ("1"), No ("0"): ___

(3) Perceived Life threat: Yes ("1"), No ("0"): ___

(4) Injury: Yes ("1"), No ("0"): ___

(5) Frequency: >1 time ("1"), 1 time only ("0"): ___

TOTAL: ___

CURRENT ABUSE

PREVIOUS YEAR OF CURRENT RELATIONSHIP

SEXUAL ABUSE
QUESTION NUMBER CORRESPONDING TO EACH ITEM IS IN PARENTHESES

(1) Touched your breasts or pubic area or made you touch his penis by using force or threat of force: 0 - 6: (23) _____

(2) Physically forced sex on you, by sex we mean putting a penis in your vagina: 0 - 6: (26) _____

(3) Physically forced you to have oral sex. by oral sex we mean put his penis in your mouth or penetrated your vagina or anus with his mouth or tongue: 0 - 6: (28) _____

(4) Physically forced you to have anal sex. By anal sex put a penis into your anus: 0 - 6: (32) _____

(5) Made you commit sexual acts that you found repulsive: 0 - 6: (33) _____

(6) Put fingers or objects in your vagina or anus by using force or threat of force: 0 - 6: (36) _____

TOTAL:_____

LENGTH OF TIME THAT PARTNER HAS BEEN ENGAGING IN THESE BEHAVIORS
(MONTHS)

_____

PHYSICAL ABUSE
QUESTION NUMBER CORRESPONDING TO EACH ITEM IS IN PARENTHESES

(1) Pulled your hair: 0 - 6: (14) _____

(2) Pushed, carried restrained, grabbed, shoved you: 0 - 6: (16) _____

(3) Slapped or spanked you: 0 - 6: (17) _____

(4) Burned you: 0 - 6: (19) _____

(5) Threw an object at you: 0 - 6: (20) _____

(6) Kicked you or hit you with a fist: 0 - 6: (21) _____

(7) Threw you bodily: 0 - 6: (22) _____

(8) Hit you or tried to hit you with something: 0 - 6 (24) _____

(9) Beat you up (Multiple Blows): 0 - 6: (25) _____

(10) Choked or Strangled you: 0 - 6: (27) _____

(11) Threatened you with a knife or gun: 0 - 6: (29) _____

(12) Used a knife on you or shot you with a gun: 0 - 6: (30) _____

(13) Tried to drown you: 0 - 6: (31) _____

(14) Threatened to kill you or your children: 0 - 6: (34) _____

(15) Injured you in such a way that you needed medical care: 0 - 6: (35) _____

(16) Treated you in such a way that you strongly believed that you life was in danger: 0 - 6: (37) _____

TOTAL: _____

LENGTH OF TIME THAT PARTNER HAS BEEN ENGAGING IN THESE BEHAVIORS (MONTHS)

_____

Curriculum Vita

Terri Lynn Weaver, M.S.

Personal Data

Address: Medical University of South Carolina
Department of Psychiatry and
Behavioral Sciences
171 Ashley Avenue
Charleston, SC 29425-0742

Home Address: 13 Cranford Road
Goose Creek, SC 29445

Phone: Work: (803) 792-2945
Home: (803) 824-6119

Date and Place of Birth: April 12, 1963;
West Palm Beach, FL

Educational Background

B.S. 1985 University of Florida; Psychology
(High Honors)

M.S. 1991 Virginia Polytechnic Institute and State
University Clinical Psychology (APA
approved program)

Masters Thesis: Early Family Environments and
Vulnerability Factors Associated with
Borderline Personality Disorder.
George A. Clum, Ph.D., Chair

Doctoral Dissertation: Interpersonal Victimization:
Broadening the Search for Long-term
Sequelae Using a Sample of Battered
Women.
George A. Clum, Ph.D., Chair

Additional Educational Experience

Treating the Child Sexual Abuse Victim (September, 1993).
Charleston, SC; sponsored by the Crime Victim Research and
Treatment Center. Presenter: Lucy Berliner (7 hours)

Advances in Treating Survivors of Sexual Abuse: Empowering the Healing Process (November, 1992). Baltimore, MD; sponsored by the Institute for Advanced Clinical Training, Inc. Presenters included Christine Courtois, Ph.D., Sandra Bloom, M.D., Ann Burgess, RN, DNSc, and Suzanne Sgroi, M.D. (24 hours).

Healing the Incest Wound: Adult Incest Survivors in Therapy (March, 1991). Williamsburg, VA; sponsored by the Virginia Association for Marriage and Family Therapy. Presenter: Christine Courtois, Ph.D. (8 hours).

Assessment Strategies for Investigating Child Sexual Abuse (June,1991); Staunton, VA. Presenter: Sue White, Ph.D. (8 hours).

Applying Dialectical Therapy (November, 1991). New York, New York.; sponsored by the Association for Advancement of Behavior Therapy. Presenter: Marsha M. Linehan, Ph.D. (3 hours).

Cognitive Therapy Training Workshop (November, 1989). Radford, VA. Presenters: John Ludgate, M.A. and Glenda Camp, Ph.D. (16 hours).

Cognitive Therapy of Personality Disorders (November, 1989). Washington, DC.; sponsored by the Association for the Advancement of Behavior Therapy. Presenters: Arthur Freeman, Ph.D. and Karen Simon, Ph.D. (3 hours)

Clinical Experience

CLINICAL PRACTICA (4220 hours projected)

1993-1994 **PREDOCTORAL INTERNSHIP** (1920 hours projected; estimated from 40 clinical hours per week for 48 weeks). **Medical University of South Carolina, Charleston, South Carolina.**

Split Rotation 1: Physical Medicine and Rehabilitation

Responsible for behavioral and neuropsychological assessment and treatment of a range of acute onset disabilities, including spinal cord injuries, cerebrovascular accident, closed head injuries, and disease processes affecting the central nervous system. Supervisor: Alice Q. Libet, Ph.D.

Child and Adolescent Community Mental Health Center
Responsible for behavioral assessment and treatment of a range of child cases including children with post-traumatic stress disorder, oppositional defiant disorder, developmental disorder, and major depression. Treatment included parent training, individual psychotherapy with children, and family therapy. Also co-facilitated a group for male adolescent sexual perpetrators and a group for female adolescent victims of sexual abuse.
Supervisor: Cynthia Cupit-Swenson, Ph.D.

Rotation 2: Crime Victim Research and Treatment Center

Responsible for assessment and treatment of adults and children, who were victims of sexual assault, physical assault, and witnessed violence. Treatment approach included stress innoculation training, Resick's cognitive processing therapy, and Barlow's mastering your anxiety and panic approach. Treatment focused matching the intervention with the particular constellation of presenting difficulties, including post-traumatic stress disorder, panic symptoms/disorder, major depression, substance use or combinations of the above.
Supervisors: Heidi S. Resnick, Ph.D. (Adult)
Rochelle F. Hanson, Ph.D. (Child)

1992-1993 **FOURTH YEAR PRACTICUM** (330 hours). **Virginia Polytechnic Institute and State University.**
Clinical responsibilities included ongoing therapy with two long-term cases (one individual and one couple) and clinical supervision of a first or second year clinical psychology student. Therapeutic approaches included interpersonal and cognitive behavioral therapy. Diagnoses included narcissistic personality disorder, substance abuse (in remission), panic disorder, and major depression/dysthymia.
Clinical Supervisors: Ellie T. Sturgis, Ph.D.; Thomas H. Ollendick, Ph.D.

1992 **SUMMER PRACTICUM** (240 hours). **Virginia Polytechnic Institute and State University.**

Clinical responsibilities included individual, couples, and family therapy and assessment utilizing objective and projective personality tests, and intelligence and achievement testing. Clients included both adolescent and adult populations. Caseload averaged 8 - 12 clients. Clinical Supervisor: Richard M. Eisler, Ph.D.

1991 **EXTERNSHIP** (480 hours) Employed as a clinical psychology extern in the child and adolescent inpatient unit at a private psychiatric hospital, **St. Albans Hospital**; Radford, VA. Duties included individual, group, and family therapy; assessment including intelligence, achievement, functional analysis of behavioral problems, and interpretation of objective personality tests. Served as co-facilitator of daily process group (72 sessions) with all the inpatients on the unit and leader of the anger control and assertiveness training group (72 sessions) Supervisor: David Hamilton, Ph.D.

1990-1991 **SECOND YEAR PRACTICUM** (360 hours): **Virginia Polytechnic Institute and State University.** Responsibilities included therapy with a number of short-term and long-term individual cases and one marital case. In addition, was responsible for co-facilitating and co-creating a group for incest survivors focusing on interpersonal issues and intimacy (8 sessions). Clinical Supervisors: Carolyn Pickett, Ph.D. and Robert Stephens, Ph.D.

Fall, 1990 **INTELLECTUAL ASSESSMENT SUPERVISOR** (240 hours): **Virginia Polytechnic Institute and State University.** As part of a teaching assistantship supervised the first year clinical students'administration of 18 adult intelligence tests (Weschler Adult Intelligence Scale and Standford Binet), 18 children's intelligence tests (Weschler Intelligence Scale for Children-Revised), 18 adult achievement tests (Woodcock Johnson), and 36 neuropsychological tests (Bender Gestalt and Visual Motor Integration) Supervisor: Thomas H. Ollendick, Ph.D.

1990 **SUMMER PRACTICUM** (320 hours): **Virginia Polytechnic Institute and State University.** Clinical responsibilities included individual therapy, marital therapy, and assessment for attention deficit disorder. In addition, was responsible for co-facilitating and co-creating a women's issues group, which was an interpersonal process group (16 sessions). Clinical Supervisor: Richard M. Eisler, Ph.D.

1989 - 1990 **FIRST YEAR PRACTICUM** (330 hours) **Virginia Polytechnic Institute and State University.** Responsibilities included long-term individual cognitive behavioral therapy with a client with major depressive disorder. Was responsible for leading a support group for women experiencing premenstrual syndrome (8 sessions). Clinical Supervisors: George A. Clum, Ph.D. and Robert S. Stephens, Ph.D.

Other Clinical Experience:

1988 - 1989 **FAIRFAX COUNTY BATTERED WOMEN'S SHELTER** (Northwest Center for Community Mental Health). Was responsible for case management, problem-solving and supportive individual therapy, and didactic and supportive group therapy. Answered 24 hour hotline and was responsible for crisis management and referral.

1987 - 1988 **CRISIS CARE HOUSE** (Mount Vernon Center for Community Mental Health). Responsibilities included delivering crisis care stabilization services, assessing suicidal and personal risk, counseling individuals and groups, designing and implementing service plans, and assessment for hospitalization.

1985-1989 **NORTHWEST CENTER FOR COMMUNITY MENTAL HEALTH:** Volunteer outreach worker for the early intervention services program.

MOUNT VERNON CENTER FOR COMMUNITY MENTAL HEALTH: Co-led a group which instructed behavioral techniques to parents to decrease

their child's whining, tantrums, and misbehavior.

VETERAN'S ADMINISTRATION VOLUNTEER: Gainesville, Fl. Volunteered with psychiatric residents who were exceptionally withdrawn and without family support.

Research Experience

1993-present **Crime Victim Research and Treatment Center; Charleston, South Carolina.** As part of predoctoral internship conducted additional analyses using the data set of the National Womens Study. Areas of interest include individuals with multiple victimizations, marital rape, spousal assault, and characteristics of treatment versus nontreatment seekers.

1991-1993 **NIMH Grant: Adolescent Chronic Suicide Ideators; Virginia Polytechnic Institute and State University.** Conducted assessments of suicidal risk using the Scale for Suicide Ideation (84 assessments) as well as diagnostic assessments using the Structured Clinical Interview for DSM-III-R (28 assessments) and the borderline portion of the Personality Disorder Exam (28 assessments). Also worked as a therapist conducting group therapy with identified adolescents who have experienced a history of chronic suicidal ideation. The group was based on a social support model (2 groups; 20 sessions). Responsibilities also included crisis management and crisis stabilization. Supervisor: George Clum, Ph.D.

1990 **Panic Disorders Project**, Responsible for assessing for panic disorder with and without agoraphobia using Barlow's Anxiety Disorders Interview Schedule- Revised. (5 assessments). Also conducted individual therapy (1 client; 8 sessions) and group therapy (1 group; 5 sessions) utilizing a cognitive behavioral approach for treating panic disorder. Also assessed two individuals using the Behavioral Avoidance Test (BAT). Supervisor: George A.

Clum, Ph.D.

1983-1985 **RESEARCH ASSISTANT:** Assisted in a NIMH child rearing research project by doing live affect coding and data management. Marion Radke-Yarrow, Ph.D.: Investigator.

RESEARCH ASSISTANT: Assisted in imagery research under principal investigator, Peter J. Lang, Ph.D.: Clinical Psychology, University of Florida.

RESEARCH ASSISTANT: Parent-Child Anxiety related behavior in a pediatric clinic waiting room. Principal Investigator, Barbara Melamed, Ph.D.

SENIOR HONOR THESIS: Auditory Thresholds for Sustained and Transient Stimuli in 6-month-olds. Principal Investigator: Kathleen Berg, Ph.D.

Teaching Experience

1992 **Graduate Instructor: Psychology of Personality.** Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA. **Faculty Advisor:** George A. Clum, Ph.D. Responsible for planning and implementing an undergraduate personality course. Course focused on the major personality theorists as well as related research and clinical applications. Teaching Fall semester, 1992 and Spring semester, 1993.

1991 **Co-Leader: Advanced Therapy Workshop.** New River Valley Community Mental Health Center, Radford, VA.
Co-leader: Laura Clark, Ph.D.
Co-led an advanced therapy workshop for conducting individual therapy with adult incest survivors.

1991 **Guest Lecturer**; Personality Psychology (undergraduate), Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Topic: Phenomenology as applied to Borderline Personality Disorder.

Fall, 1990 **Graduate Assistantship:** Intellectual Assessment. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA.
Faculty Advisor: Thomas H. Ollendick, Ph.D.
Responsible for demonstrating a variety of adult and child achievement and intellectual assessment instruments. Also, assisted first year clinical students with report writing and attaining proficiency with assessment administration.

1989-1990 **Graduate Assistantship:** Introductory Psychology. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA. Participated as a graduate teaching assistant for the discussion sections of the Introductory Psychology Class. Responsible for facilitating small group discussions and for assisting with the clarification of topics presented in students' lecture class.

1989 **Guest Lecturer:** Domestic Violence (Graduate); Virginia Polytechnic Institute and State University (Northern Virginia Annex). **Topic:** Fairfax County Battered Women's Shelter: Issues in Crisis Stabilization and Case Management.

Professional Affiliations

Student Affiliate, American Psychological Association

Student member, Association for the Advancement of Behavior Therapy

Submitted Paper for Publication

Weaver, T. L, & Clum, G. A. Psychological Distress Associated with Interpersonal Violence: A Meta-analysis.

Publications

Weaver, T. L., & Clum, G. A. (1993). Early family environments and traumatic experiences associated with borderline personality disorder. Journal of Consulting and Clinical Psychology, 61 (3), 1068-1075.

Paper Presentations

Clum, G. A. , Yang, B., Weaver, T. L., Weise, K., Curtin, L., & Pickett, C. (1993). Treatment outcome in a sample of chronic ideating adolescents. In G. Clum (Chair), Studies in the etiology and treatment of suicidality in adolescents. Symposium conducted at the 39th annual meeting of the Southeastern Psychological Association, Atlanta, GA.

Clum, G. A., Yang, B., Priester, M., Weise, K., Curtin, L., Weaver, T. L., & Pickett, C. (1993). Problem-solving, social support, and functional analysis as treatment for chronically suicidaladolescents. Paper presented at the 25th annual American Association of Suicidology, San Francisco, CA.

Weaver, T. L., & Clum, G. A. (1993). Psychological Distress Associated with Interpersonal Violence: A Meta-Analysis. Poster presentation at the 27th annual convention of the Association for the Advancement of Behavior Therapy, Atlanta, Georgia.

Weaver, T. L., & Clum, G. A. (1993). An evaluation of diagnostic morbidity in a group of chronic adolescent suicide ideators: Implications for treatment. In G. Clum (Chair), Studies in the etiology and treatment of suicidality in adolescents. Symposium conducted at the 39th annual meeting of the Southeastern Psychological Association, Atlanta, GA.

Clum, G. A. , Yang, B., Pickett, C., Priester, M., Weaver, T. L., & Weise, K. (1992). Problem-solving treatment of Severe Suicide Ideators. Paper presented at the 24th annual Convention of American Association of Suicidology, Boston, MA.

Clum, G. A., Curtin, L., Priester, M. J., Weaver, T. L., Weise, K. A., & Yang, B. (1992). Preliminary assessment from an adolescent sample of chronic suicide ideators: A longitudinal analysis. Poster presentation at the 26th

annual convention of the Association for the Advancement of Behavior Therapy, Boston, MA.

Clum, G. A., Gould, R. A., Priester, M., Weaver, T. L., & Shapiro, D. (1992). Bibliotherapy in the treatment of panic disorder. Poster presentation at the XXVth International Congress of Psychology, Brussels, Belgium.

Clum, G. A., Priester, M., Weaver, T., Putnam, D., Pickett, C., Gould, R., Yang, B., Weise, K., & Curtin, L. (1992). Group problem- solving and group social support treatments for suicidal ideation. Poster presentation at the XXVth International Congress of Psychology, Brussels, Belgium.

Weaver, T. L., & Clum G. A. (1992). Diagnostic comorbidity in a college-aged population of suicide ideators. Paper presented at a symposium presentation during the annual meeting of the Virginia Psychological Association, Roanoke, VA.

Gould, R. A., Clum, G. A., Shapiro, D., Weaver, T. L., & Blalock, J. (1991). Evidence for a self-help approach for treating panic disorder. In G. Clum (Chair), Recent advances in the etiology and treatment of panic disorder and agoraphobia. Symposium conducted at the 37th annual meeting of the Southeastern Psychological Association, New Orleans, Louisiana.

Weaver, T. L., Clum, G., Gillespie, B., & Priester, M. (1991). Early family environments and vulnerability factors associatedwith borderline personality disorder. Poster presentation at the 25th annual meeting of the Association for Advancement of Behavior Therapy, New York, New York.

Manuscripts in Preparation (Research Completed)

Clum, G. A., & Weaver, T. L. Diagnostic Composition and It's Relationship to Severity of Ideation in a College-Aged Population of Chronic Suicide Ideators.

Weaver, T. L., & Clum, G. A. Borderline Personality Disorder: A Factor-Analytic Approach.

Weaver, T. L. Decontextualization as a Metaphor for Examining Revictimization.

Sponsored Research

Principal Investigator, "Interpersonal Victimization: A Search for Long-Term Abuse Specific Outcomes Using a Sample of Battered Women," submitted and funded through the Virginia Polytechnic Institute and State University Graduate Research Development Project (GRDP), February 1993.

Principal Investigator, "Early Family Environments and Traumatic Experiences Associated with Borderline Personality Disorder," submitted and funded through the Virginia Polytechnic Institute and State University Graduate Research Development Project (GRDP), April, 1991.

Present Clinical and Research Interests

1. Adult Psychopathology

2. Theories of Personality

3. The pathogenesis of borderline personality disorder.

4. Trauma and short and long-term symptomatology.

5. Prevention and treatment of suicidal behavior, parasuicide, and self-mutilation.

6. Etiological models of psychopathology

References

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Terri L. Weaver, M.S