EARLY FAMILY ENVIRONMENTS AND VULNERABILITY FACTORS ASSOCIATED WITH BORDERLINE PERSONALITY DISORDER

by

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(ABSTRACT)

Childhood trauma experiences (sexual abuse, physical abuse, witnessed violence, and early separation experiences) and family environment characteristics were assessed via questionnaire from a sample of depressed borderline (N=17) and depressed nonborderline (N=19) female inpatients. Significantly more borderline individuals than nonborderlines gave histories of sexual abuse (76%) and physical abuse (93%) and these traumatic experiences were more severe in nature as demonstrated by significantly greater composite scores. While the presence of witnessed violence did not differentiate the two groups, borderline individuals witnessed violence more frequently than nonborderline individuals if there was violence in the home. Early separation experiences were relatively common in both groups suggesting that these experiences may be associated with both BPD and depression. The BPD group was also distinctive on family environment measures, evidencing significantly less family cohesiveness and expressiveness and significantly more conflict and control.
The two groups were similar on indices of current stressors, typically associated with onset of depression, providing more support for the role of childhood trauma in the etiology of BPD.
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Introduction

The term "borderline" has been perplexing and intriguing researchers and clinicians for nearly 55 years (Aronson, 1985). Currently, borderline personality disorder (BPD) is the most heavily researched of all the personality disorders and is certainly one of the most common psychiatric diagnoses (Widiger & Frances, 1989). Part of the popularity of this personality disorder arises out of its sheer prevalence in the psychiatric population. In a recent review of twenty-two studies which systematically computed the prevalence of persons with borderline personality disorder, researchers reported that the diagnosis of BPD would account for 11 percent of the outpatients and 19 percent of all the inpatients (Widiger & Frances, 1989). Even more notable, BPD would account for 23 percent of all inpatients who are not schizophrenic, mentally retarded or experiencing an organic mental disorder and BPD would account for 33 percent of all outpatients with a personality disorder.

In addition to the prevalence data, BPD is an important clinical problem due to the characteristic symptom presentation of these individuals, including a rapid shift to angry, hostile affect, self-destructive actions, and hypersensitivity to abandonment, which frequently result in
multiple psychiatric hospitalizations and a high rate of therapist "burnout" (Gunderson & Zanarini, 1987). The abundance of early research on BPD has targeted its validity and reliability (eg., Grinker et al., 1968; Kernberg, 1967; Kety, Rosenthal, Wender, & Schulsinger, 1968).

With validity and reliability reasonably well established, research began to investigate etiological hypotheses. The clinical presentation of the disorder has led a number of researchers to explore the interpersonal realm for possible etiological factors. That is, borderline personality disorder is typically characterized by a marked and persistent identity disturbance (American Psychiatric Association, 1987). Achieving an identity involves finding a role to meet society's demands and such processes are largely interpersonal (Lerner, 1986). Taking the "persistent and marked" (ie. longstanding) definition of these difficulties with the interpersonal focus of identity development led to the exploration of early interpersonal interactions with primary caregivers as etiological agents in the development of BPD (Kernberg, 1985; Masterson, 1981; Soloff & Millward, 1983). More recently, interpersonal interactions characterized by early trauma such as childhood sexual and physical abuse, witness to violence, and early separation experiences have discriminated individuals with
BPD from a variety of psychiatric controls in a number of studies (Herman, Perry, & Van der Kolk, 1989; Ogata, Silk, Goodrich, Lohr, Westen, & Hill, 1990; Zanarini, Gunderson, Marino, Schwartz, & Frankenburg, 1989).

However, these preliminary studies have been characterized by methodological flaws such as nonblind diagnostic assessments (Ogata et al., 1990), failure to establish diagnostic reliability (Herman et al., 1989; Zanarini et al., 1989), and inconsistent operational definitions of the traumatic events across studies. In addition to these methodological concerns, there are some questions about the appropriateness of the control groups used in each study. That is, all three studies failed to control for the Axis I diagnosis of the BPD group, making it impossible to determine whether the differences in occurrence of traumatic events is due to membership in BPD group or to uncontrolled Axis I disorders (e.g. level of depression).

The present study is designed to address these shortcomings. In order to provide the rationale for the hypotheses and research design of the present study, a number of different areas of literature were reviewed. This literature review falls under three general headings: historical overview of borderline personality disorder
including the delineation of BPD from the mood disorders, relevant child development theories with an emphasis on childhood stress, early separation experiences, and psychic trauma resulting from childhood physical and sexual abuse, and existing family environment etiological research of BPD. The historical overview of the disorder outlines the emergence of the BPD symptom constellation and the review of BPD's relationship with mood disorders details the rationale for the choice of the depressed control group in the present study. The child development literature highlights developmental issues which interact with and influence the expression of responses following experiences of stressful and traumatic events, providing a model to examine the processes by which these events result in adult difficulties. Lastly, etiological research is reviewed to present current conclusions about the etiology of BPD and to further illustrate the way in which the present study extends the findings of existing research.
Review of Literature

**Historical Overview of Borderline Personality Disorder**

Borderline personality disorder first achieved official status as a personality disorder in 1980 in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) (American Psychiatric Association, 1980). The conceptualization of this disorder has undergone a number of changes through the years, all of which have enhanced its validity as a distinctive entity. The most recent definition of the disorder is in the revised third edition of the DSM-III (American Psychiatric Association, 1987). BPD is defined by the presence of any five out of a possible eight symptoms (See Appendix A). The core symptoms of BPD include difficulty modulating affect, difficulty with the concept of self, difficulty in interpersonal relationships, and distorted cognitive processes. These core symptoms consistently emerged from early clinical observations and divergent research methodologies involving an unusual group of patients.

Initially, the literature on the borderline syndrome was psychoanalytically oriented and descriptive of a group of patients, at first appearing neurotic and analyzable, but who in fact were very resistant to the psychoanalytic process (Goldstein, 1983). Furthermore, this group of
patients often decompensated on the couch exhibiting intense countertransference reactions of anger and helplessness and often periods of brief psychosis. Stern (1938) first officially identified these patients as "borderline" as he described a group of patients who fit in neither the psychotic nor psychoneurotic group. Subsequent researchers used a variety of terms referring to an unanalyzable, schizophrenic-like group of patients. These terms included: ambulatory schizophrenia, preschizophrenia, stably unstable borderline, latent schizophrenia, pseudoneurotic schizophrenia, schizotypal disorder, and borderline (cited in Aronson, 1985).

Amidst these anecdotal and unconnected reports emerged three landmark studies in the 1960s. Kernberg (1967) was interested in developing a diagnostic criteria to explain the internal psychological structure of the borderline client. Again, Kernberg noted that the borderline patients were similar in presentation to those with neurosis but exhibited transient psychotic episodes while under stress or under the influence of drugs/alcohol. In contrast to most patients with psychotic reactions, Kernberg stated that borderline patients maintained the capacity to test reality. In summary, Kernberg stated that borderline patients have a symptom constellation, including chronic, diffuse, free
floating anxiety, "classical" prepsychotic personality structures, and emotional lability; defensive ego constellations with primitive defense mechanisms (splitting, denial, and omnipotence), pathology of internalized object relations, and overriding influence of pregenital aggressive needs.

Grinker et al. (1968) took a different, more empirical perspective and was interested in descriptive characteristics obtained from a prospective and systematic collection of observations and subsequent data analyses on borderline patients. In that study, the authors identified four features characteristic of all borderline individuals. These included anger as the main and only affect, a defect in affectionate relationships, absence of consistent self-identity, and depression characterizing life. In addition, the authors further differentiated four subgroups of borderlines: a neurotic border group, an "as if" group, a psychotic border, group, and a core borderline group. Taking Kernberg and Grinker's work together, a borderline constellation emerges which includes affective lability, difficulty with interpersonal relationships, an unstable self/identity, and distorted (sometimes psychotic) thought processes.
The last study from the 1960's was the research from Kety, Rosenthal, Wender, and Schulsinger (1968). These researchers took a genetic approach via a landmark series of adoption studies. Researchers using comprehensive Danish adoptive records, isolated a group of schizophrenic index cases (adoptees), characterized by "chronic schizophrenia," "acute schizophrenic reaction," or "borderline schizophrenia." "Borderline Schizophrenics" were described as having difficulties in thinking, brief periods of cognitive distortion, micropsychosis, depersonalization and derealization, anhedonia, lack of affective involvement, lack of in-depth interpersonal involvement, chaotic sexual adjustment, and multiple neurotic symptoms. Next, in an effort to delineate the genetic transmission of schizophrenia, authors located the biological and adoptive parents, siblings, and half-siblings of the index cases as well as of a matched set of controls (adoptees without a psychiatric history of the schizophrenia "spectrum."). By analyzing the psychiatric histories of the biological and adoptive families, researchers began to hypothesize the route of schizophrenic transmission. Researchers found that the pattern of schizophrenia-related disorders in the biological families was the same for the 16 index cases diagnosed as "chronic schizophrenia" as for the ten index
cases diagnosed as "borderline schizophrenia," which they cited as support for the inclusion of the borderline syndrome among the schizophrenias. However, the genetic relationship between this borderline group and the chronic schizophrenic group remains unclear (Goldstein, 1983).

Having established a fairly consistent group of symptoms, research then turned to the dilemma of labeling the phenomena. This early research consisted of two branches. There have been those that have postulated that BPD is a variant of schizophrenia (Kety, Rosenthal, Wender & Schulsinger, 1968; Stern, 1938) and those that have postulated that BPD is a variant of affective or mood disorders (Davis & Akiskal, 1986). These connections are not surprising given the recurrence of cognitive and affective disturbances in the borderline constellation.

Borderline personality disorder has been successfully delineated from schizophrenia as a result of task force research for DSM-III diagnostic labels (Spitzer, Endicott, & Gibbon, 1979) as well as longitudinal research illustrating phenomenological differences between BPD and schizophrenia in both short and longterm functioning (McGlashan, 1986; Pope, Jonas, Hudson, Cohen & Gunderson, 1983). Interestingly, the relationship between the affective disorders and BPD is more complex and more difficult to
resolve.

**Borderline as a Subgroup of Affective Disorders**

Gunderson and Elliot (1985) reviewed three existing hypotheses about the apparent overlap of BPD and affective disorders. Hypothesis I proposes that affective disorder is the primary problem in patients with both the affective syndrome and borderline character pathology. Thus, borderline symptoms such as impulsive drug use and sexual promiscuity are seen as efforts to alleviate chronic depression. This hypothesis has been referred to as the complication hypothesis by Farmer and Nelson-Gray (1990). Hypothesis II proposes that borderline personality disorder itself can produce diagnosable affective disorders in some individuals. Given such characterological defects as impulsivity and hypersensitivity to separation, an individual may be secondarily dysphoric and develop other signs and symptoms of depression. This hypothesis has been referred to as the characterological predisposition hypothesis by Farmer and Nelson-Gray (1990). Hypothesis III postulates that affective and borderline personality disorders are unrelated, with each having a high incidence in the population. This perspective, also identified as the orthogonal hypothesis (Farmer & Nelson-Gray, 1990), suggests that a spurious correlation can exist.
Hypothesis I, the complication hypothesis, that BPD is secondary to the affective disorder, has received little support in the literature. A number of studies have demonstrated the stability of the borderline diagnosis over time even after an affective disorder has remitted (Barasch, Frances, Hurt, Clarkin, & Cohen, 1985; McGlashan, 1986; Pope et al., 1983).

In addition, pedigree studies demonstrated that personality disorders (histrionic, borderline, and antisocial personality disorders) were significantly more prevalent among relatives of patients with borderline personality disorder (a combination of patients both with and without a concurrent affective disorder), than in the families of a schizophrenic group or a bipolar group (Pope et al., 1983). This finding, again, points away from the primacy of the affective disorder.

Hypothesis II, the characterological predisposition hypothesis, that the affective disorder is secondary to the borderline personality disorder, again, has no compelling support. There is evidence that for a number of borderline patients without depression there is still some family loading for affective disorder (Davis & Akiskal, 1986; Pope et al., 1983). Also such patients (borderline only) may have biological markers such as the measurement of cortisol

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secretion (dexamethasone suppression test), thyroid-stimulating-hormone (TSH) response, and REM latency, characteristic of affective illness (Davis & Akiskal, 1986). In spite of depressive-type family psychiatric histories and physiological presentation, the borderline patients appear to be less responsive to antidepressant medication than patients with pure major depressions and no BPD. These results continue to suggest that BPD is not a variant of the affective disorders.

Hypothesis III, that the affective disorders and the personality disorders coexist but are unrelated, has more support. Both the family prevalence studies (Pope et al., 1983) and the longitudinal studies (McGlashan, 1986) suggest that the disorders can follow separate courses within the same person. Thus, families of borderline patients have a higher prevalence of personality disorders whether or not the patients have a current affective disorder, while the families of patients with an affective disorder also have a loading for affective disease (Gunderson & Elliot, 1985). Unfortunately, prevalence studies cite the comorbidity of affective disorders with BPD from 37 % (Davis & Akiskal, 1986) to 71 % (McGlashan, 1986), much higher than expected. In addition, if the two disorders are truly independent, one would expect the affective symptoms to be more responsive to
pharmacological therapies.

While the findings describing the connection between BPD and affective disorders point to a rather complex relationship, there does seem to be mounting evidence that the two phenomena can be discriminated, particularly in the arena of clinical presentation. Farmer and Nelson-Gray (1990) in their recent review of research note that when individuals with BPD are compared to depressive controls, the disorders do emerge as distinct on a number of dimensions. Borderline individuals compared to depressive controls had more sexual promiscuity, intense unstable relationships, hostility, devaluation, manipulation in interpersonal relationships, impulsivity, substance abuse, suspiciousness and paranoia. Of course, one must also recognize that the boundaries between the disorders are not sharply discontinuous, particularly given the affective loading within the borderline constellation.

This review highlights the high rate of comorbidity of BPD with mood disorders, particularly in inpatient samples where depressives with personality disorders are most frequently of the "erratic-dramatic" type (Farmer & Nelson-Gray, 1990). At the same time this review suggests that BPD has some distinctive qualities in both affective, behavioral, and cognitive realms (Farmer & Nelson-Gray,
Given its frequent comorbidity with mood disorders as well as its emerging distinctiveness, matching two groups for mood disorders on Axis I is important in order to control for the influence of the Axis I mood disorder on the characterological presentation. This is particularly important given the finding that patients evidence greater character pathology when they are anxious or depressed compared to when these symptoms have ameliorated (cited in Farmer & Nelson-Gray, 1990). This design creates a more stringent comparison and increases the likelihood that group differences are attributable to BPD and not to differences in depression.

Having detailed the important issues to consider for designating the diagnostic groups, the literature outlining empirical attempts to explain the etiology of mood disorders and borderline personality disorder will now be reviewed.

Family Environment Studies

Family environment studies of borderline personality disordered individuals comprise an underdeveloped area of research. This body of literature examines the etiology of the disorder via developmental histories. These studies group their findings into two characteristic areas: parental separation and loss and disturbed parental involvement. However, in light of the interconnection
between borderline personality disorder and mood disorders, it first is necessary to examine the developmental literature which highlights the importance of early childhood environment, including early separation and loss, processes involved in responses to childhood stress and childhood trauma, and the implications of these experiences for adult depression.

**Separation and Loss**

Childhood parental death has frequently been linked with adult mental disorders—mostly depression (Ragan & McGlashan, 1986). One of the greatest shortcomings of prior research is the failure to consider the highly complex chain of experiences that might link loss of a parent with later depression (Brown, Harris, & Bifulco, 1986). Recent research on psychosocial influences of depression has suggested a three factor model of depression consisting of provoking agents, vulnerability factors, and symptom formation factors.

Provoking agents are significant events that usually involve an important current loss or disappointment (cited in Brown et al., 1986). However, provoking events can also include chronic stressors such as ongoing financial difficulties or longstanding illness. The importance of these provoking elements in the etiology of depression is
highlighted by impressive data that show onset of depression within a month or so of the critical life event (Finlay-Jones, 1981). These provoking events bring about at least 60% of all episodes of depression among psychiatric patients and between 80 and 90% of depression in women in the general population (cited in Brown et al., 1986). The second factor in the model of depression is vulnerability factors which increase the likelihood of provoking events causing depression. Some vulnerability factors for depression in women mentioned by researchers (Brown et al., 1986) include lack of social support, lack of an intimate tie with a husband, and having three or more children under the age of 14 living at home. That is, the risk of depression is increased in their presence once a provoking event occurs.

The third factor in the model is symptom-formation factors which are different from the others. Rather than effecting the occurrence of depression, these factors influence the form of the disorder, the degree to which the depression is psychotic or neurotic, for example. Symptom formation factors may come from any point in a person's life, but so far early experience has been heavily implicated.

The three factor model of depression identifies a hypothesized chronology of occurrences leading to adult
depression including symptom-formation factors, occurring early in life and affecting the form of the disorder, provoking events, occurring close in time to the depression and inducing the depressive episode, and vulnerability factors, which potentiate the provoking event and increase the likelihood of a depressive response. This model highlights the importance of examining stressful events occurring around the same time as the onset of the depressive episode in adulthood. However, this model does not elucidate the processes involved in children's responses to early stressors, how these processes may contribute to adult depressives responses, or the role that the family plays in these responses. The literature in the area of childhood stress and cognitive development provide information about children's responses at the time of the stressor and suggest a number of possible pathways leading to adult depression.

**Childhood Stress**

Childhood stress can be defined as (1) the presence of a stimulus event, which induces (2) an element of change which modifies the organism's systemic and/or psychological equilibration, and (3) is capable of inducing a state of emotional arousal marked by concomitant neurophysiological, cognitive, and expressive components, and which (4) has the
potential of disruption of the organism's normative pattern of responding (Garmezy, 1986).

Garmezy (1986) provides a summary of the consistent findings with regard to stressful early life experiences that are associated with separation from significant caregivers. Taken together, these results suggest that age at separation, support systems, family context before separation and family context after separation, as well as individual variables comprise a number of vulnerability factors for later depression as well as the possibility that these variables predispose a depressive response to certain provoking events later in life.

This research outlines the role of family climate and support systems as an influence on children's responses to stressors of separation. These data highlight that the child's interruption in "normative pattern of responding" may be a response to family changes and/or support systems post-stressor, rather than to the stressor, itself. Specifically, children are better able to modulate a stressful response to an acute traumatic event if other structures and routines are maintained (Maccoby, 1983). Since the family environment and other support systems comprise a (potential) source of this structure and routines, disruption in this system following a stressful
event can have a powerful disorganizing effect upon the child (Maccoby, 1983). Garmezy (1986) also suggests that the child will experience different responses at different ages depending upon level of cognitive understanding of the event. Further understanding of the impact of experiences of early separation and loss necessitates an exploration of the cognitive competencies of the child at the time of the trauma.

**Cognitive Developmental Considerations**

Children's understanding of the inner and outer world changes qualitatively as they grow up. Piaget and his successors have identified four sequential stages of cognitive development: sensorimotor, preoperational, concrete operational, and formal operational logic (Fish-Murray, Koby, & Van der Kolk, 1987).

The developmental literature (Fish-Murray, Koby, & Van der Kolk, 1987) suggests that a child's attribution for and understanding of a separation experience varies with level of cognitive development. According to stage theory, children attribute human responsibility for environmental events in the early preschool years (approximately ages 4-7). This attributional process has negative implications for early separation experiences, eg. a parent is hospitalized or dies because "the child did something
wrong." Only at later stages (eg. concrete operational—roughly ages 7 – 11) does the child move from self-centered explanations and move towards considering the differences between intended and unintended outcomes.

Miller and Aloise's (1989) review of the literature on social development notes that this propensity to overassume intentionality is a result of a number of cognitive factors. These factors include the child's limited knowledge base (eg. the child does not understand that accidents or illness can physiologically cause death), and use of a cognitive "matching rule" or the heuristic stating that outcome matches motive (eg. bad motive (someone was bad), bad outcome (loss or death of parent).

However, this information does not mean that early losses are automatically more traumatic for children than later losses. In fact, a shortcoming of stage theory is that it connotes linear developmental processes and rather abrupt age-specific developmental changes (Lerner, 1986). Others, (eg. Maccoby, 1983) have concluded that it is unlikely that there is any linear increase or decrease in vulnerability to stress. Rather, the dynamics and relevant issues change according to developmental level. In addition, it is important to remember that cognitive development is but one variable to consider when looking at
children's responses to stress.

With the caveat mentioned above, the literature on childhood responses to stress and cognitive development suggest that variables of general family climate pre- and post-stressor and cognitive development are important to consider when examining children's responses to stressors of separation and loss. In particular, family environment and support systems may serve as a modulator (either a potentiator or a buffer) of an acute stressful event. The cognitive development literature sheds some light on one possible process by which early separation experiences may create a vulnerability to exhibit a depressive responses to future stressful events. That is, the preschool child's tendency to overattribute intentionality to uncontrollable environmental events interestingly parallels the unrealistic self-blame for environmental occurrences and over-responsibility for other's difficulties frequently seen in adult depressives (Beck, 1979). Perhaps these early separation experiences, if paired with a further disorganizing (stressful) family response, create a series of negative, chaotic experiences for the child. These experiences and the resulting attributional process may constitute a chronic vulnerability for an adult depressive response (unrealistic self-blame) following stressful
provoking events.

A developmental framework will now be extended to the trauma variables of physical and sexual abuse, which have been associated with BPD.

Childhood Physical and Sexual Abuse

Researchers Cicchetti and colleagues, whose longitudinal work is summarized by Fish-Murray et al. (1987), devised a number of tests to assess abused and neglected children's functioning in three domains: scientific inferential thinking, knowledge of self, and understanding of others. Sexually abused, physically abused and grossly neglected children were not distinguished on the general assumption that the response of the central nervous system does not differentiate between these sources of trauma. Among the three domains, abuse affected the personal arenas (knowledge of self and understanding of others) far more than the scientific one. The abused group was at a markedly lower level than the nonabused group in the areas of self-knowledge and ability to shift roles (reciprocal role playing). In response to ambiguous stimuli, the abused children made expansive references to their traumatic experiences. In addition, while the abused children were able to shift cognitive sets with physical objects, they found it difficult to shift sets with self/other categories.
Lenore Terr (1990) documents an additional cognitive/emotional response to sexual and physical abuse trauma, particularly repeated childhood trauma. She reports that in response to repeated, predictable traumas, children frequently exhibit a psychic numbing in response to the event. She posits that chronic use of this numbing strategy, which may be masking the anger associated with this experience, can have lasting effects on a child's personality development. These personality descriptions include the perpetually withdrawn child who appears unable to emotionally invest in any interaction and the child who appears to indiscriminately seek affection and approval from others.

In summary, the impact of abuse on the identity formation of victims, their ability to relate to others, and the development of stable attachments are markedly similar to the dysfunctional patterns of interaction seen in borderline personality disorder. In addition, the dissociative or numbing techniques which psychologically separate the child from the external world, have implications for the child's ability to conceptualize boundaries. Developing self through interpersonal interactions involves a continual rethinking of boundaries and is therefore an important component of personality
development. Of course, these data are still preliminary as they are characterized by small sample sizes and often utilizes measures which are untested for reliability and validity. Nevertheless, these childhood responses to trauma offer a window to explain disordered personality development, particularly BPD.

Briere (cited in Asher, 1988) has suggested that victims of sexual abuse may develop a Post-Sexual-Abuse Syndrome consisting of behaviors which were originally coping mechanisms or conditioned reactions to a childhood characterized by victimization. Interestingly, the constellation of problems commonly experienced by women who have been incest victims are also a subset of the criteria for borderline personality disorder and include impulsive behaviors, suicide attempts or other physically self-damaging acts, severe interpersonal difficulties, and episodes of dissociation (Asher, 1988). The connection between sexual abuse and borderline-like symptoms experienced by sexually abused women raises questions about the relationship between aspects of the abusive experience and long-term impact. One way to examine this connection is to look at specific characteristics of the abusive experience.
Finkelhor and Browne (1988) reviewed the research on the long term impact of child sexual abuse. Research suggests that more trauma results from abuse by relatives than by nonrelatives. The most consistent finding for greatest trauma involves fathers or father figures (Browne & Finkelhor, 1986). This finding is explained by the degree of betrayal, with the assumption that betrayal is greatest when abuse violates the trust relationship between a child and a father or father figure. An additional finding addresses the particularly negative effect of sexual trauma resulting from multiple perpetrators (Courtois, 1988). These multiply victimized survivors are thought to suffer additional aftereffects, primarily due to the additional "proof" that something about her causes others to abuse her. This could also be viewed as a generalization of the traumagenic dynamics across relationships.

From their review, researchers designed a model to serve as set of testable hypotheses in response to their critique that the existing body of research has been exploratory, broad in focus, and conducted without considering the processes by which the sexual trauma leads to difficulties in adulthood (Finkelhor & Browne, 1988). Finkelhor and Browne (1988) have suggested the following conceptual framework for grouping the traumatizing phenomena
of sexual abuse: (1) traumatic sexualization (2) stigmatization (3) betrayal and (4) powerlessness. The dynamics of the four components are summarized as follows:

(1) traumatic sexualization: child is rewarded for sexual behavior as offender exchanges attention and affection for sex,
(2) stigmatization: offender blames, denigrates victim, pressuring child for secrecy,
(3) betrayal: violation of expectation that others will provide care and protection
(4) powerlessness: child feels unable to protect self and halt abuse.

The behavioral manifestations of these components are hypothesized:

(1) Traumatic sexualization results in sexual preoccupations, precocious sexual activity, and sexual dysfunctions,

(2) Stigmatization results in isolation, drug or alcohol use, and self-mutilation

(3) Betrayal results in clinging, vulnerability to subsequent abuse and exploitation, discomfort in intimate relationships, and aggressive behavior

(4) Powerlessness results in dissociation, depression, and aggressive behavior.

Under this proposed model, sexual abuse is no longer considered a homogenous experience. That is, no longer is the question, "How traumatic was the event? but rather, What was the psychological and behavioral impact of certain traumatic dynamics?"
In summary, one must consider a number of factors when evaluating the long-term effects of childhood loss and separation, stress, and trauma. That is, acute and chronic childhood trauma occur within an individual and environmental context. Furthermore, there is a dynamic interplay between the trauma and this context of individual (e.g., child's cognitive development) and environmental (e.g., child's family and support system pre- and post-stressor) variables. Factors associated with each of these areas: the type of trauma, individual variables associated with the child, and the nature of the environment, can influence the nature of the long-term outcome. In spite of the seemingly endless complexity of these interrelationships, the constellation of vulnerability factors constitute a possible pathway for the resulting adult disorder of BPD and depression. In looking at two groups of depressed individuals, one with and one without BPD, one would predict that both groups experienced recent stressful events, contiguous with their depression, and experienced early experiences of separation and loss. However, the groups are expected to differ on early childhood experiences of trauma with the BPD group having experienced more sexual and physical abuse trauma and further disorganizing family responses; all of which have important implications for
personality development.

Given this hypothesis, the existing research on the families of borderline personality individuals will be reviewed next, noting the following variables of interest: childhood stress, childhood trauma, and early family climate.

Gunderson and Zanarini (1989) provide a review of nine empirical studies many of which were methodologically unsound, due to nonblind diagnostic assessments, unclear definitions of BPD, small sample sizes, and vague dependent measures. The basic design of these studies compared a BPD group to a number of psychiatric controls including schizophrenics, psychotics, neurosis/other Axis II disorder, major depressive, antisocial, and other Axis II disorders plus dysthymia. Dependent measures included assessment of separation from parents or disturbed parental behavior (over involvement, under involvement, high conflict). The results of these studies highlight the issues of parental loss and separation and conflictual parental involvement as important in the development of BPD. An assessment of physical and sexual abuse was conspicuously absent in all but two of the reviewed studies, one of which will be presented below in more detail (Zanarini, Gunderson, Marino, Schwartz, & Frankenburg, 1989).
Zanarini, Gunderson, Marino, Schwartz, and Frankenburg (1989) attempted to improve upon the existing designs in the following important ways: diagnostic assessment was conducted blind to clinical diagnosis and childhood experiences were assessed by raters blind to diagnosis. Dependent measures consisted of semistructured interviews and the measures were specifically chosen to evaluate the factors of interest: childhood abuse: verbal, physical, sexual; childhood neglect: physical neglect, withdrawal, inconsistency; and early separation experiences. Lastly, two groups of controls were chosen who were considered to share the impulsivity or the chronic dysphoria characteristic of the BPD group. These groups included an antisocial group and a dysthymic/other personality disorder group. All subjects were mental health outpatients.

Significantly more borderlines than dysthymic/OPD (but not antisocial) reported experiencing at least one prolonged separation from primary caretaker during early childhood (birth to age 5). There were no significant group differences for separation experiences during latency (6 to 12), adolescence (13 to 17), or all of childhood together.

In terms of caretaker behavior, significantly more borderlines than antisocial and dysthymic/OPD controls reported a childhood history of abuse, particularly verbal
abuse. In addition, significantly more borderlines than dysthymic OPD controls reported a childhood history of sexual abuse. While not reaching significance, there was a trend indicating that borderlines were more likely than antisocial controls to report having been sexually abused by a caretaker before the age of 18. Overall, the borderline group evidenced some type of disturbed parent behavior (abuse, neglect, emotional withdrawal, or inconsistency) in early childhood more frequently than either control group.

While this study is a more systematic attempt at evaluating the trauma variables of abuse, ignored in previous research, there are still some limitations. This study failed to operationally define the trauma variables under consideration and failed to evaluate the reliability of diagnostic assessments or the reliability of the information obtained from the semi-structured interview. In addition, the authors did not report the Axis I diagnoses of both the BPD group and the antisocial control group, raising questions about the homogeneity of the control groups.

A second study (Herman, Perry, & van der Kolk, 1989), published after Gunderson and Zanarini's (1989) review, exclusively focused on childhood trauma in borderline personality disorder and extends the results of Zanarini et
al. (1989). Childhood histories were obtained by an intensive semistructured interview (Herman and van der Kolk, unpublished manuscript). Like the Zanarini et al. (1989) study the groups were from an outpatient population. Childhood histories were obtained with investigators blind to the diagnostic data. The present study accessed three groups: subjects with borderline personality disorder ($N=21$), borderline traits ($N=11$) and nonborderline subjects with other personality disorder diagnoses ($N=23$). Borderline traits were defined as meeting at least four DSM-III criteria for BPD (as opposed to five or more criteria for BPD) and having a score higher than 130 on the Borderline Personality Disorder Scale. The interviews were scored for positive indexes of trauma in three areas: physical abuse, sexual abuse, and witnessing domestic violence. Lastly, like Zanarini et al (1989), protocols evaluated trauma at each of three developmental stages: early childhood (0-6 years), latency (7-12 years), and adolescence (13-18 years).

The great majority of subjects with definite borderline personality disorder gave histories of major childhood trauma; 71% ($N=15$) had been physically abused, 67% ($N=14$) had been sexually abused, and 62% ($N=13$) had witnessed domestic violence. Abuse histories were less common in
patients with borderline trait and least common in the subjects with no borderline diagnosis.

Over half of the borderline individuals reported some kind of trauma in early childhood (0-6 years) compared to almost nonexistent reports in the other two groups. Borderline subjects also reported significantly more abuse experiences in latency than other subjects. Borderline subjects not only experienced abusive experiences more frequently, but also experienced more different forms of trauma than the other groups, illustrated by a significantly higher total trauma score than the other two groups. In addition, degree of borderline psychopathology was positively correlated with all three forms of childhood trauma (physical abuse, \( r = .47, p < .001 \), sexual abuse, \( r = .40, p < .01 \), and witness to domestic violence, \( r = .40, p < .01 \)) whereas no such relationship was found for antisocial or schizotypal personality. An analysis of variance (ANOVA) showed main effects for gender and diagnosis and no significant interaction effect between gender and diagnosis. After gender was controlled for, the effect of diagnosis remained significant.

Thus, these results support the hypothesis that childhood abuse has a major formative role in the development of borderline personality disorder. However,
the study shares similar limitations to Zanarini et. al (1989). Herman et. al (1989) failed to assess reliability of diagnostic and interview data. In addition, the operational definitions of the trauma variables, particularly sexual abuse, were rather loose. For example, consentual sexual exploration between peers was not rated as abuse but "consentual" was not specified nor was the age difference to classify as "peers." Thirdly, Axis I diagnoses of all groups were not specified.

Ogata, Silk, Goodrich, Lohr, Westen, and Hill (1990) is the most recent study to focus on childhood trauma. This study assessed the experiences of abuse and neglect via a structured interview in 24 DIB-defined male and female borderlines and 18 male and female non-borderline controls with Axis I diagnosis of major depression. This study differed from the other two, in that the population was inpatient, and a more liberal definition of sexual abuse was employed, including exhibitionism and exploitation by peers. However, reliability data was reported for the diagnostic interview as well as the structured interview. Unfortunately, this study reported an Axis I diagnosis (major depressive disorder) for only half of the subjects in the borderline group.
Consistent with the other two studies, borderlines reported significantly higher rates of childhood sexual abuse than depressed subjects (71% vs 22% respectively). In addition, most borderline patients reported sexual abuse prior to age 12, although it was unreported whether this age of onset is significantly different from the control group. A stepwise logistic regression was performed with diagnosis as the dependent variable. Using predictor variables of sexual abuse, physical abuse, physical neglect, and sexual abuse divided according to perpetrator—(nuclear family members, nonnuclear family members, and non-relatives)—a sufficiently good fit was obtained for the model by using only sexual abuse as a predictor of diagnosis.

The three studies (Herman et al., 1989; Ogata, 1990; Zanarini et al., 1989) underscore the importance of early onset of abuse, form of abusive experiences, frequency, and chronicity of occurrence in the development of BPD. In addition, the studies reviewed by Gunderson and Zanarini (1989), including Zanarini et al. (1989), suggest that borderline patients have significantly more experiences of loss and separation. It is interesting to note, given the frequent comorbidity of BPD and mood disorders, that these separation experiences have also been implicated as vulnerability factors for adult depression. Sexual abuse
was significantly more frequent in the childhood histories of BPD in all three studies, whereas physical abuse differentiated the BPD group in only one study (Herman & Vander Kolk, 1989).

The present study was designed to deal with the shortcomings of the existing research in the following ways (Ogata et al., 1990; Herman et al., 1989; Zanarini et al., 1989): (a) The present study compared two groups: the first with an Axis I diagnosis of mood disorder (dysthymia, unipolar depression, bipolar depression, and adjustment disorder with depressed mood) plus a co-occurring Axis II disorder of BPD, the second (control) with an Axis I mood disorder (same diagnostic options as above) but no diagnosis of BPD. This comparison permitted the determination of whether physical and sexual traumatization was specific to BPD or also was related to uncontrolled differences in levels of depression. (b) Family environment data was gathered via questionnaire instead of interview using an adapted portion of the instrument used in the Ogata et al. (1990) study as well as a frequently used survey adapted from Finkelhor (1979). The use of a questionnaire ensured a consistent method of data collection and may have increased the level of disclosure given the increase in anonymity inherent in self-report methods. (c) Previous studies of BPD
have not included an assessment of family environment using standard measuring instruments. In the present study, the family climate was assessed, as family patterns of interaction have been suggested as influencing the impact of a traumatic event. Assessing the family context also enriched the data analysis by presenting a more global picture of the childhood environment, beyond the assessment of discrete traumatic events. (d) Precipitating events of the mood disorder were assessed with a Life Experiences Schedule. In this way, this study attempted to tease apart those events which have influenced the depression (recent events) versus those events which influenced characterological functioning (early childhood events); and (e) This study offered a more complex analysis of childhood trauma than previous studies. That is, instead of recording childhood events as discrete occurrences, composite scores were computed.

The hypotheses for the study are as follows:

(1) The borderline group is expected to have experienced significantly more "total" traumatic experiences, defined as a summation of composite scores of physical abuse, sexual abuse, witness to domestic violence and early loss and separation.

(2) The borderline group is expected to report more sexual abuse histories than the non-borderline group.

(3) The borderline group is expected to have the earliest onset of sexual abuse, with significantly more events in the 0-6 age range than the nonborderline group.
(4) The borderline group's family environment is expected to be characterized by less family cohesion, less expressiveness, and more conflict, a constellation noted by Moos and Moos (1986) for sexually and physically abusive families, than the families of the nonborderline group.

(5) The borderline group is expected to have significantly more loss and separations from the primary caregiver at the 0-6 age range than the nonborderline group.

(6) Significant, positive correlations between the DSM III-R borderline criteria and the associated component of sexual abuse are expected: traumatic sexualization with resulting identity disturbance; betrayal with resulting unstable and intense interpersonal relationships, anger, and chronic feelings of emptiness or boredom; stigmatization with recurrent suicidal threats and impulsivity, and powerlessness resulting in affective instability.

(7) Significant, positive correlations are expected between the chronicity (duration) of the sexual abuse and resulting level of borderline pathology.
Method

Subjects

All subjects were female inpatients from one of two southwestern Virginia state mental health facilities (Southwestern Virginia Mental Health Institute in Marion, VA and Catawba Hospital in Catawba, VA). All female patients at these facilities were considered eligible for inclusion if they: (1) were between the ages of 18 and 65; (2) had no history or current symptoms of a clear-cut organic condition (3) were given an Axis I clinical diagnosis of a mood disorder by the admitting psychiatrist (4) were not currently detoxing and (5) were not experiencing hallucinations or delusions. A total of 41 out of 46 eligible patients agreed to participate in the study yielding an 89.13% rate of compliance with the referral. Of the 5 patients who declined, 4 patients declined participation due to their imminent discharge from the hospital which heightened their concerns for avoiding emotional upset which they feared may lead to a delay in discharge and one declined because of her refusal to be taped. Of the 41 patients completing the study, 5 patients were excluded from data analysis for failing to meet designated level of depression. The final sample consisted
of 17 patients in the borderline group and 19 patients in
the nonborderline group. Five of the 17 individuals in the
borderline group obtained "pathological" scores on only four
of the criteria for BPD while the remaining 12 individuals
received "pathological" ratings on five or more of the
borderline criteria. All subjects in the nonborderline
group obtained fewer than four "pathological" ratings on the
BPD criteria with the majority of participants having zero
or one "pathological" rating (68%, 13/19), one participant
having two "pathological" ratings, and the remaining
participants having three "pathological" ratings (26%,
5/19).

Procedure

Patients were referred to the study by their treatment
team at each respective hospital. These individuals were
then 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 to the patients that their
participation was voluntary and would not affect their
treatment at the hospital. All participants in the study
were seen within 14 days of admission with the borderline
group having been hospitalized for a mean of 6.44 days and
the nonborderline group having been hospitalized for a mean
of 7.05 days.
Following completion of the informed consent, each patient participated in two diagnostic, semistructured interviews administered by the investigator (T.L.W.) Axis I diagnosis of a mood disorder was assessed with the first diagnostic interview using the mood disorders portion of the Structured Clinical Interview for DSM-III-R (SCID) (Spitzer, Williams, & Gibbon, 1987). In the present study, reliability was determined by concordance with the referring psychiatrist that the participant did meet criteria for a mood disorder. Concordance with the specific mood disorder diagnosed by the psychiatrist was not required. All participants in the study met the criteria for an existing mood disorder.

The second diagnostic interview assessed for the presence or absence of borderline personality disorder using the borderline section of the Personality Disorder Exam (PDE) (Loranger, 1988). The PDE interview was audiotaped for purposes of establishing diagnostic reliability.

Following the completion of these two interviews, the participants completed five self-report questionnaires administered in counterbalanced order: Moos Family Environment Scale (Moos & Moos, 1986), Zung Depression Inventory (Zung, 1965), Sarason's Life Experiences Survey (Sarason, Johnson, & Siegel, 1978), an adapted version of
Finkelhor's Family Experiences Survey (Finkelhor, 1979), and a self-report version of Cgata's Early Separation Experiences Interview (unpublished manuscript). Most participants in both groups completed the study in one session with the exception of two subjects in the borderline group and one subject in the nonborderline group, who required two sessions. All participants in both groups completed the study in three hours with both groups taking a mean of two hours. Participants returned to the ward activities following a brief explanation of the intent of the study.

**Measures**

Structured Clinical Interview for DSM III-R (SCID) (Spitzer, Williams, and Gibbon, 1987). The mood disorders portion of this semi-structured interview was used to assess for the presence of one of four affective disorders: dysthymia, unipolar depression, bipolar depression, cyclothymia, and adjustment reaction with depressed mood. Reliability of the instrument has been well documented. Using videotaped interviews, paired raters made independent diagnoses of 75 psychiatric outpatients (Raskind, Beck, Berchick, Brown, & Steer, 1987). For major depressive disorder, the percent agreement of the raters was 82% with a kappa value of .72.
Zung Self Rating Depression Scale (Zung, 1965). This 20 item self-rating scale is a quantitative measure of depressive symptoms utilizing the diagnostic criteria of the presence of affective, cognitive, and physiological symptoms typical of depression. Each item is presented in a four-choice format and one half of the items are reverse scored. Scores of .50 or higher on this inventory indicate that the individual is currently feeling depressed with scores of .70 or more indicating severe depression. In an initial study validating this instrument, inpatients admitted with depressive disorders had significantly higher mean scores on the Zung than a control group of nondepressed "other" psychiatric inpatients (Zung, 1965). In the present study participants had to obtain a score of .50 or higher to be included.

Personality Disorder Examination (Loranger, 1988). The borderline portion of this semistructured interview was chosen because it provides a balance between structured and open-ended assessment highlighting the advantages of a spontaneous clinical interview as well as fulfilling the requirements of standardization and objectivity. Each of the eight DSM-III-R borderline criteria is assessed by a question or a number of questions and the patient is required to provide examples to bolster simple "yes" or "no"
answers. Situation specific behaviors are ruled out by the requirement that a behavior has to have existed for at least five years to be considered a personality trait. In addition the personality disorder interview is given after the assessment for mood disorders to avoid contamination of responses about general behaviors due to current affective state.

The PDE is also notable as it provides an opportunity for an individual to receive one of three scores for each diagnostic criteria: a behavior or trait may be absent or normal (0), exaggerated or accentuated (1), or pathological (2). The advantages of using a dimensional approach to diagnose personality disorders have been heralded by many due to the fuzzy boundaries of many personality disorder behaviors (Farmer & Nelson-Gray, 1990). The test-retest reliability of the dimensional scores ranged from .66-.86, with a median of .71 (Loranger, 1988). Interrater reliability data based on joint interviews with the 1985 version, designed to reflect the first draft version of DSM-III-R criteria, is impressively high with a kappa of .96 for borderlines.

In the present study we extended the range of possible dimensional scores such that each participant (from either group) could receive a "borderline" score ranging from 0 -
46, indicating severity of the borderline dimension. The criteria and associated dimensional rating system is outlined in Appendix B. For the purpose of categorical diagnoses, participants obtaining four (probable) or five (definite) scores of "2" out of the eight criteria for borderline personality disorder were assigned to the borderline group. Less than four scores of "2" designated assignment to the nonborderline group.

Moos Family Environment Scale–2nd Edition (Moos & Moos, 1986). This measure consists of ten subscales that measure the social-environmental characteristics of all types of families. The ten FES subscales assess three underlying domains: the relationship dimension: consisting of a scale measuring cohesion, expressiveness, and conflict; the personal growth dimension: consisting of a scale measuring independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis; and the system maintenance dimension: consisting of a scale measuring organization, and control.

The scales representing the relationship dimension and the system maintenance dimension were administered, as they best capture the features of a family environment characterized by childhood physical or sexual abuse (cited
in Moos & Moos, 1986). The internal consistencies (Cronbach's Alpha) for each of the subscales are in the acceptable range. In addition, test-retest reliabilities vary from a low of .68 for Independence to a high of .86 for Cohesion. Family profiles evidenced good test-retest reliability over time intervals of as long as a year, with a mean (averaging across the 10 scales) agreement of .80 or above for the profile configuration. Lastly, the FES has demonstrated good construct validity as illustrated by significant correlations with raters' judgments of the family as well as significant and positive relationships with other Family Assessment/Adjustment Scales.

Life Experiences Survey (Sarason, Johnson, & Seigel, 1978). This 47 item scale allows for participants to indicate whether they have experienced any one of 47 experiences (there are three blank space for the individual to write in any additional experiences) which they may have experienced in the recent past- six months or one year. In addition, the individual is requested to rate the impact of this experience on them at the time using a 7-point anchored scale ranging from -3 to +3. Summary scores are calculated by summing the total number of events, the total number of negative events, the total negative score, and the total score for all events within the past year. Test-retest
reliability for this instrument is very good ranging from a Pearson product moment correlation of .56 ($p < .001$) for the negative score to .64 ($p < .001$) for the total score (Sarason, Johnson, & Seigel, 1978). The negative score on the LES is also significantly and positively correlated with the Beck Depression Inventory with a correlation of .24, ($p < .05$) (Sarason, Johnson, & Seigel, 1978).

Family Experiences Survey (Finkelhor, 1979). A modification of Finkelhor's survey was utilized using only the items that tap sexual abuse. Sexual abuse is operationally defined in the present study as any self-reported sexual contact (e.g. fondling to intercourse) experienced by subject with someone markedly discrepant in age (Finkelhor, 1979). This definition is chosen to emphasize the relative youth of the victim and the relative power of her abuser. This discrepancy is divided into three categories: a child under the age of 12 with an adult 18 years or older; a child under the age of 12 with another person who is under the age of 18 but at least 5 years older than the child; and adolescents 13 to 16 and legally defined adults at least 10 years older than the adolescent. This definition does not include aversive experiences between same-age peers or "exposure only" events (exhibitionism) and therefore falls at the conservative end
of the continuum of definitions utilized by researchers in this area (cited in Briere & Runtz, 1988).

The survey is a combination of forced-choice as well as a free response format. Each event was assessed for reported frequency, duration, perceived emotional impact on the subject, age of occurrence, and relationship with the perpetrator. Although it is difficult to obtain direct validity checks on the reporting of subjects on this survey, Herman and Schatzow (cited in Ogata et al., 1990) report that among 53 women who were asked questions about their sexual abuse, 74% were able to independently corroborate sexual abuse histories; another 9% found evidence in statements from other family members that suggested abuse. These findings suggest that women are indeed reporting valid information.

Data from this information was scored in a number of ways. First, discrete incidents of abuse were recorded as well as the developmental time period in which the incident occurred. The time periods were 0-6 years, 7-12 years, and 13-18 years.

Sexual abuse composite scores also were created with the researcher (T.L. W.) blind to the data, utilizing a literature review of specific factors associated with sexual abuse which consistently appear to be related to severity of
symptoms following the abuse experience (Finkelhor, 1990; Browne & Finkelhor, 1986). Spearman item to total correlations were also computed and are listed in the results section.

There are 7 variables making up the composite score, each of which are given a score of "1" if they apply, making the range of possible "sexual abuse" scores from 0-7 for each of the three developmental periods (possible total of 21).

The first variable is the "sexual abuse variable" indicating that there was an incident of sexual abuse during this time period. The second variable delineates whether the abuse was perpetrated by a relative (eg. father, mother, grandfather) or a nonrelative (eg. babysitter, swim coach, neighbor). Stepfathers perpetrating abuse were included under the relative category. The third variable indicates whether force was used during the abusive experience. In their review authors noted that force was a major traumatogenic influence with the finding holding up in multivariate analyses (Browne & Finkelhor, 1986). The fourth and fifth variables detailed whether the abuse experience continued for more than one year (duration) and whether the experiences happened more than one time (frequency). There have been some contradictory findings
around the association between trauma and the duration and frequency of abuse. Four out of nine studies found longer duration and greater frequency associated with greater trauma, three studies found no relationship, and two found a longer duration associated with less trauma (Browne & Finkelhor, 1986). The sixth variable indicates whether there was more than one perpetrator during the developmental stage under question. The last variable was a measure of the individual's subjective response to the experience. Together, these seven variables are an amalgamation of sexual abuse factors associated with severity of outcome.

The following questions were used in order to explore the hypothesized correlations of traumatic factors of sexual abuse and resulting behavioral, affective, and interpersonal difficulties (Finkelhor's model). Questions from the Family Experiences Survey were selected as representative of each of the traumagenic factors and associated criteria comprising the BPD dimensional scores were used to measure predicted outcomes. Each traumagenic factor score was computed for every sexual abuse experience. These scores were summed across experiences, within each of the four factors.
For the traumatic sexualization factor, individuals' responses to "Were you ever rewarded or given special privileges for participating in this sexual experience?" were recorded with individuals receiving a "1" for a "Yes" response and a "0" for a "No" response. This factor score was correlated with the dimensional score on the "Identity Disturbance" BPD criteria. The betrayal factor was measured by a number corresponding to the relationship of the individual to the perpetrator, with larger numbers associated with closer relationships: 0 - stranger, 1 - friend of the family or person that the individual knew, 2 - relatives (not including nuclear family members), 3 - nuclear family members, including stepfathers. This factor score was correlated with the sum of three BPD dimensional scores: "Unstable relationships," "Anger," and "Boredom." The Stigmatization factor score was coded as a number corresponding to individuals' response to the question, "If you told your mother about this experience, how did she react? (If you did not tell your mother, how do you think she would have reacted?): 0 - no anger, 1 - a little angry, 2 - mildly angry, 3 - very angry. This factor score was correlated with the sum of two BPD dimensional scores: "Suicidality," and "Impulsivity." Last, the Powerlessness factor score was coded as a number corresponding to
individual's response to the question, "Did the other person (s) threaten or force you?": 0- No, 1- a little, and 2- Yes. This factor score was correlated with the BPD dimensional score on the "Affective instability" criteria.

Finkelhor's survey also assesses for the presence of incidents of physical abuse and witness to domestic violence in the individual's childhood history. 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. Witness to domestic violence was defined as intrafamilial violence that results in physical marks, bruises, breaks in the skin or an injury that warranted medical treatment, whether or not treatment was received. Again these incidents were assessed across three developmental periods, 0-6 years, 7-12 years, 13-18 years and the participant quantified the frequency of event according to a six point scale ranging from 0 (never occurred) to 6 (occurred more than 20 times). In addition to recording the presence or absence of physical abuse or domestic violence a composite score was created by summing the number of incidents within each developmental period. Queries for physical abuse included: one of my brother/sister did this (physically abused) to me, my father physically abused me, my mother
physically abused me. Queries for domestic violence included: brother/sister physically abused another brother/sister, father physically abused other brother/sister, mother physically abused brother/sister, father physically abused mother, mother physically abused father.

Ogata's Early Separation Experiences subscale (unpublished manuscript, 1990) from the Familial Experiences interview. Separation was defined as loss by divorce, death, or a variety of other possible prolonged separations, operationalized as occurring for longer than one month. Each separation event was assessed for age of occurrence, using the same three developmental levels described in the previous instrument, frequency, and subjective response of perceived impact. In addition, a composite score was created using five variables. The first variable indicates whether a prolonged separation had occurred within the developmental period under question. The second variable encompasses two loss and separation experiences associated with childhood and adult depression: parental death or death of a primary childhood caretaker and chronic illness and/or repeated hospitalizations (Ragan & McGlashan, 1986). Death of other family members was included in this variable as well. In addition, multiple experiences were included in
the composite score with a variable indicating whether there were more than one separation within the developmental time period under observation. This variable was included as Dunn (1986) has highlighted the importance of the family response to loss or separation experiences with the assumption that multiple experiences will tax the family and individual's coping responses even further.

All four variables mentioned above receive a score of "1" if they were present within one of the three developmental age periods. The last variable is a measure of the individual's subjective response to the experience of loss or separation. If the individual reports no memory or a positive response to the separation or loss they receive a score of 0 on this measure, a report of some negative response receives a score of 1, and an intense negative response receives a score of 2. If the individual has more than one separation experience with different subjective responses, an average is taken of the two numbers. Taken together, the individual can receive a possible separation score ranging from 0 - 6 within each developmental age period for a total score ranging from 0 - 18. Spearman item to total correlations were computed for each of the five variables making up the composite score and these correlations are listed in the Results section.
Results

The demographic variables and mental health histories, including previous hospitalizations and report of previous depressive episodes, of the sample are listed in Table 1.

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Insert Table 1 about here

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Both the 17 borderline and 19 nonborderline individuals were comparable on the major demographic variables of age, race, marital status, and level of education. All 36 participants were interviewed in the study within a median of 6 days of their admission to the hospital with a range of 1 - 11 days for the borderline group and a range of 3 - 16 days for the nonborderline group. The borderline group had significantly higher scores on the subjective depression measure (Zung) than the nonborderline group and also reported more previous episodes of depression and more previous psychiatric hospitalizations. Spearman correlations were calculated between the Zung depression score and each of the trauma composite scores. Correlations proved significant for sexual abuse composite score, $r = .41, p < .01$ and for the physical abuse composite score, $r = .29, p = .05$. Correlations were nonsignificant for the composite scores of domestic violence and early separation experiences.
Table 1. Demographic and Psychiatric Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>BPD</th>
<th>NBPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>32 (7.9)</td>
<td>34 (11.8)</td>
</tr>
<tr>
<td>Race (%)</td>
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<tr>
<td>White</td>
<td>88</td>
<td>89</td>
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<tr>
<td>Nonwhite</td>
<td>12</td>
<td>11</td>
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<tr>
<td>Marital Status (%)</td>
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<tr>
<td>Married</td>
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<td>21</td>
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<tr>
<td>Separated</td>
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<td>26</td>
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<tr>
<td>Divorced</td>
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<td>26</td>
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<tr>
<td>Single</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Education (Years)</td>
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<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>12 (2.6)</td>
<td>11 (3.1)</td>
</tr>
<tr>
<td>Zung Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>.71 (.09)</td>
<td>.64 (.11) **</td>
</tr>
<tr>
<td>Previous Hospitalization</td>
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<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>4.8 (3.4)</td>
<td>1.9 (3.9) **</td>
</tr>
<tr>
<td>History of Depression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean # Episodes (SD)</td>
<td>14.4 (7.7)</td>
<td>8.4 (9.5) *</td>
</tr>
<tr>
<td>Mean Life Events (SD)</td>
<td>10.3 (5.2)</td>
<td>9.6 (4.6)</td>
</tr>
</tbody>
</table>
Negative Life Events (SD)  8.9 (4.5)  7.7 (4.7)

Abbreviations:  BPD, borderline personality disorder group; NBPD nonborderline personality disorder group; SD, standard deviation;
All comparisons in this and subsequent tables are between the BPD group and the control, NBPD group.

**$p < .05$ (t test)

* $p = .05$ (t test)
While the two groups reported different intensities of current depression and histories of depressive episodes, the borderline and nonborderline groups reported having a comparable number of recent stressful life events and recent negative life events.

Depressive disorders for both groups are listed in table 2.

__________________________

Insert Table 2 about here

__________________________

Given the small cell sizes the diagnostic data could not be statistically analyzed. However, descriptively, the two groups differed on the frequency of bipolar disorder and adjustment disorder. Whereas the BPD group had more diagnoses of bipolar disorder (6/17, 35%) and no diagnoses of adjustment disorder, the Nonborderline personality disorder (NBPD) group had more diagnoses of adjustment disorder (4/19, 21%) and fewer diagnoses of bipolar disorder (1/19, 5%).

Interrater reliability for the PDE was obtained by audiotaping the interview and having one of two graduate student raters, trained in the rating system by T.L.W., listen to and rate the tape. Interrater reliability was maintained throughout the study at a consistently high level.
Table 2. Frequency of Depressive Diagnoses

<table>
<thead>
<tr>
<th>Type of Mood Disorder</th>
<th>BPD % (N)</th>
<th>NBPD % (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Depression</td>
<td>47% (8)</td>
<td>57% (11)</td>
</tr>
<tr>
<td>Dysthymia</td>
<td>18% (3)</td>
<td>16% (3)</td>
</tr>
<tr>
<td>Bipolar Depression</td>
<td>35% (6)</td>
<td>5% (1)</td>
</tr>
<tr>
<td>Adjustment Disorder</td>
<td>0</td>
<td>21% (4)</td>
</tr>
</tbody>
</table>

Abbreviations: BPD, borderline personality disorder group; NBPD, nonborderline personality disorder group
with percentage agreement of .88 and a kappa of .76. When there was a discrepancy between the ratings of the interviewer and the rater, the tape was rated by G.A.C. and his ratings determined the placement of the participant in the experimental or control group.

A Spearman item to total score correlation was computed and proved significant for each of the variables in the sexual abuse and early separation experiences composite scores. Spearman item to total correlations for each of the variables comprising the composite scores are listed in Table 3.

Insert Table 3 about here

To protect against spurious findings resulting from multiple tests in subsequent analyses, a multivariate analysis of variance (MANOVA) was performed to investigate the main effect of diagnosis (borderline, nonborderline), main effect of developmental age level (0 - 6 years, 7 - 12 years, 13 - 18 years), and diagnosis x developmental age interaction effect on the four composite scores: sexual abuse, physical abuse, witness to domestic violence, and early separation experiences. The MANOVA for the diagnosis x age interaction was not significant indicating that any
Table 3. Spearman Item to Total Correlations for the Variables of the Sexual Abuse and Early Separations Experiences Composite Scores

<table>
<thead>
<tr>
<th>Sexual Abuse Total Score</th>
<th>Early Separations Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative</td>
<td>.82***</td>
</tr>
<tr>
<td>Force</td>
<td>.90***</td>
</tr>
<tr>
<td>Duration</td>
<td>.86***</td>
</tr>
<tr>
<td>Frequency</td>
<td>.93***</td>
</tr>
<tr>
<td>Multiple Perpetrators</td>
<td>.54**</td>
</tr>
<tr>
<td>Subjective Response</td>
<td>.80***</td>
</tr>
</tbody>
</table>

*p < .007 (one-tailed t test)

**p < .0004 (one-tailed t test)

***p < .00005 (one-tailed t test)
univariate findings with respect to an interaction effect should not be interpreted or should be interpreted with caution. The MANOVA was significant for the main effect of diagnosis ($\hat{\lambda} = .21$, $F(4, 53) = 48.70$, $p < .0001$), indicating that across developmental age levels the borderline group had a higher overall "trauma" composite score ($\bar{M} = 3.79$) than the nonborderline group ($\bar{M} = 1.54$). The main effect of developmental age level ($\hat{\lambda} = .65$, $F(8, 106) = 3.19$, $p < .003$) was also significant, indicating significant differences for the overall "trauma" composite score at one or more developmental age levels across diagnoses. These two significant main effects permit further investigation of the univariate analyses and possible main effects for each of the composite scores. Item analyses for the items making up the composite scores will also be presented (when there are sufficient numbers for statistical analyses) with the findings for each of the composite scores. Statistical analyses were computed twice, both with the "probable" and "definite" borderline individuals and with the "definite" borderline individuals, only. Each of the two runs yielded the same significant effects described above, so the data for the probable borderlines will not be presented separately.

Univariate Analyses (Sexual Abuse Composite Scores)
Borderline individuals reported significantly higher sexual abuse composite scores (M = 2.45) than the sexual abuse composite scores of nonborderline individuals (M = .56), (F (1, 56) = 23.59, p < .0001). Mean scores for the composite scores at each developmental age level are listed in Table 4.

Insert Table 4 about here

Across the two diagnoses, the sexual abuse composite score was highest at the latency age level (7-12 years) than either of the other two developmental age levels (F (2, 56) = 4.01, p < .02). Frequency of sexual abuse experiences were not significantly different in the 0-6 age range for the borderline (5/17, 29%) and nonborderline (2/19, 11%) groups. However, planned comparisons for sexual abuse composite scores in the 0-6 age range for the BPD group proved significant (F (1, 56) = 4.41, p < .05). Table 5 lists the frequencies of childhood trauma for each of the traumatic experiences explored in this study.

Insert Table 5 about here

The majority of borderline individuals (n =13, 76%) reported sexual abuse histories compared to only a few nonborderline
<table>
<thead>
<tr>
<th></th>
<th>0 - 6 years</th>
<th>7 - 12 years</th>
<th>13 - 18 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sexual Abuse</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borderline</td>
<td>2.00</td>
<td>3.71</td>
<td>1.65</td>
<td>2.45</td>
</tr>
<tr>
<td>Nonborderline</td>
<td>.667</td>
<td>.722</td>
<td>.278</td>
<td>.556</td>
</tr>
<tr>
<td></td>
<td>1.31</td>
<td>2.17</td>
<td>.942</td>
<td></td>
</tr>
<tr>
<td><strong>Physical Abuse</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borderline</td>
<td>5.77</td>
<td>7.31</td>
<td>6.31</td>
<td>6.46</td>
</tr>
<tr>
<td>Nonborderline</td>
<td>1.89</td>
<td>2.39</td>
<td>1.67</td>
<td>1.98</td>
</tr>
<tr>
<td></td>
<td>3.52</td>
<td>4.45</td>
<td>3.61</td>
<td></td>
</tr>
<tr>
<td><strong>Witness to Violence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borderline</td>
<td>5.57</td>
<td>6.64</td>
<td>4.43</td>
<td>5.54</td>
</tr>
<tr>
<td>Nonborderline</td>
<td>2.56</td>
<td>2.22</td>
<td>1.39</td>
<td>2.05</td>
</tr>
<tr>
<td></td>
<td>3.87</td>
<td>4.16</td>
<td>2.72</td>
<td></td>
</tr>
<tr>
<td><strong>Early Separation Experiences</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borderline</td>
<td>1.41</td>
<td>1.23</td>
<td>2.29</td>
<td>1.65</td>
</tr>
<tr>
<td>Nonborderline</td>
<td>1.00</td>
<td>1.89</td>
<td>1.78</td>
<td>1.56</td>
</tr>
<tr>
<td></td>
<td>1.20</td>
<td>1.57</td>
<td>2.03</td>
<td></td>
</tr>
</tbody>
</table>
Table 5. Frequencies of Early Childhood Trauma

<table>
<thead>
<tr>
<th>Type of Trauma</th>
<th>BPD % (N)</th>
<th>NBPD % (N)</th>
<th>$\chi^2$</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Abuse</td>
<td>76% (13)</td>
<td>26% (5)</td>
<td>7.13</td>
<td>.008</td>
</tr>
<tr>
<td>N</td>
<td>17</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>93% (13)</td>
<td>35% (6)</td>
<td>8.4</td>
<td>.004</td>
</tr>
<tr>
<td>N</td>
<td>14</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Witness to Violence</td>
<td>60% (9)</td>
<td>37% (7)</td>
<td>.995</td>
<td>NS</td>
</tr>
<tr>
<td>N</td>
<td>15</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Separation</td>
<td>81% (13)</td>
<td>83% (15)</td>
<td>.000</td>
<td>NS</td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$\chi^2$ df = 1, for all $\chi^2$ (Yates corrected)
individuals (n = 5, 26%). Three of the four borderline participants reporting no history of sexual abuse were diagnosed as having "definite" borderline personality and one of the four had a diagnosis of "probable" borderline personality disorder.

The age of onset for sexual abuse did not differ for the borderline (M = 7.5 years) and nonborderline (M = 8.8 years) groups.

Of those who reported sexual abuse histories, borderline individuals reported being sexually abused for significantly longer periods of time than the nonborderline individuals (M = 4.9 years and M = .39 years for borderlines and nonborderlines, respectively), t (13.7) = 2.01, p < .04. Furthermore, rating the borderline diagnosis as a dimensional variable yielded a significant positive Spearman correlation between dimensional borderline score and duration of sexual abuse, r = .65, p < .00005.

Almost one-half of the sexually abused borderline participants (n = 6, 46%) reported being sexually abused throughout more than one developmental age period whereas only one of the sexually abused nonborderlines (20%) reported sexual abuse extending beyond a one time or brief (2 months) occurrence. Forty-six percent of sexually abused borderline individuals recalled penetration during sexual
abuse and 38 % (5/13) reported being sexually abused by different people some time in their childhood.

Spearman correlations were calculated to investigate the relationship between the traumagenic factors of sexual abuse and resulting behavioral, affective, and interpersonal difficulties proposed by Finkelhor. As predicted, traumatic sexualization was significantly correlated with identity disturbance, $r = .44$, $p = .05$. However, traumatic sexualization also correlated significantly with a score collapsing measures of suicidality and impulsivity, which was not predicted, $r = .48$, $p < .05$. In addition, as predicted by the model, powerlessness was significantly correlated with affective lability, $r = .43$, $p < .05$. Betrayal significantly correlated with two measures: identity disturbance and the suicidality/impulsivity measures, $r = .51$, $p < .05$, and $r = .57$, $p < .002$, for identity disturbance and suicidality/impulsivity, respectively. All Spearman correlations are listed in Table 6.

________________________

Insert Table 6 about here

________________________

Spearman correlations were also calculated between each of the dependent measures (sexual abuse composite score,
Table 6. Spearman Correlations between Finkelhor's Traumagenic Factors and Associated Dimensional Borderline Scores

<table>
<thead>
<tr>
<th></th>
<th>Identity Disturbance</th>
<th>Anger/Unstable Relationships/Boredom</th>
<th>Suicidality/Impulsivity</th>
<th>Affective Lability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traumatic Sexualization</td>
<td>.44*</td>
<td>.19</td>
<td>.48**</td>
<td>.40</td>
</tr>
<tr>
<td>Betrayal</td>
<td>.51**</td>
<td>.40</td>
<td>.57***</td>
<td>.05</td>
</tr>
<tr>
<td>Stigmatization</td>
<td>.18</td>
<td>.23</td>
<td>.37</td>
<td>.15</td>
</tr>
<tr>
<td>Powerlessness</td>
<td>.38</td>
<td>.30</td>
<td>.46**</td>
<td>.43**</td>
</tr>
</tbody>
</table>

* p = .05 (one-tailed t test)
** p < .05 (one-tailed t test)
*** p < .002 (one-tailed t test)
physical abuse composite score, early separation composite score, domestic violence composite score, and Zung depression score) and each of the traumagenic factors in the model. Correlations between the composite scores of physical abuse, domestic violence, and early separation and all factors of the model proved nonsignificant. Correlations were significant for sexual abuse composite scores and three out of four of the factors in the model (sexual abuse and traumatic sexualization, $r = .52, p < .03$; betrayal, $r = .65, p < .006$; and powerlessness, $r = .73, p < .002$). The Zung depression score was significantly correlated with the factor of powerlessness, $r = .53, p < .03$.

**Univariate Analyses (Physical Abuse and Witnessed Violence Composite Scores)**

Borderline individuals reported significantly higher physical abuse composite scores ($M = 6.46$) than nonborderline individuals ($M = 1.98$), $F (1, 56) = 151.19, p < .0001$; and higher witness to domestic violence composite scores ($M = 5.54$) than nonborderline individuals ($M = 2.05$), $F (1, 56) = 42.77, p < .0001$ (See Table 4). Although more borderline individuals reported the presence of physical abuse at some time during their childhood than did nonborderlines, the two groups did not differ for the
presence of experiences of witnessed violence (See Table 5). Taking these two results together, borderline individuals were more likely to experience physical abuse in their childhood than nonborderlines and they both experienced (physical abuse) and witnessed (domestic violence) more frequent (intense) abusive experiences than nonborderlines. An ANOVA for the mean scores of each the items used in the physical abuse and witness to domestic violence composite score by diagnosis was run and the results are listed in Table 7.

________________________

Insert Table 7 about here

________________________

Compared to the nonborderlines, borderlines experienced significantly more physical abuse from their mothers, with physical abuse by fathers having the second highest rate of occurrence. For witnessed violence, borderlines reported more experiences of mothers physically abusing brothers or sisters than nonborderlines, with reports of father abusing siblings distinguishing the two groups at the trend level.

Across diagnoses, two groups: a sexual abuse group and a nonsexually abused group were created. Total scores on the physical abuse measures were higher for the sexually abused group (M =18.73) than for the nonsexually abused
Table 7. Characteristics of Physical Abuse and Witnessed Violence

<table>
<thead>
<tr>
<th>Type of Abuse</th>
<th>BPD</th>
<th>NBPD</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Abuse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brother/sister</td>
<td>4.42</td>
<td>1.69</td>
<td>2.19*</td>
</tr>
<tr>
<td>Father</td>
<td>5.79</td>
<td>1.31</td>
<td>5.61**</td>
</tr>
<tr>
<td>Mother</td>
<td>8.21</td>
<td>1.25</td>
<td>12.02***</td>
</tr>
<tr>
<td>Witnessed Violence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father abusing sibling</td>
<td>4.21</td>
<td>1.44</td>
<td>2.32*</td>
</tr>
<tr>
<td>Mother abusing sibling</td>
<td>5.07</td>
<td>1.19</td>
<td>5.30**</td>
</tr>
<tr>
<td>Father abusing mother</td>
<td>.71</td>
<td>.43</td>
<td>.15</td>
</tr>
<tr>
<td>Mother abusing father</td>
<td>1.21</td>
<td>.50</td>
<td>.60</td>
</tr>
</tbody>
</table>

*p < .2 (ANOVA)

**p < .05 (ANOVA)

***p < .002 (ANOVA)
group ($M = 3.00), t = 3.39, p < .005). The two groups were not significantly different on the total scores for witnessed violence.

Univariate Analyses (Early Separation Experiences Composite Scores)

The two groups did not differ on their composite scores for early separation experiences (See Table 4). Rates of childhood separations in the 0 - 6 age range were relatively common for both the borderline (6/18, 33%) and nonborderline (8/16, 50%) groups. Planned comparisons for the composite scores for early separation experiences in the 0 - 6 age range also proved nonsignificant. Rates of any childhood separation experience were also relatively common for both groups (See Table 5).

Univariate Analyses (Family Climate)

Family climate data was analyzed using the one-way analysis of variance (ANOVA) of factor score by diagnosis. The results for the family environment data are listed in Table 8.

Insert Table 8 about here

Compared to nonborderline individuals, the families of the borderlines were characterized by significantly less
Table 8. Family Environment Characteristics

<table>
<thead>
<tr>
<th>Family Variable</th>
<th>BPD</th>
<th>NBPD</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesiveness</td>
<td>2.35</td>
<td>4.61</td>
<td>7.07*</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>2.05</td>
<td>3.61</td>
<td>4.85*</td>
</tr>
<tr>
<td>Conflict</td>
<td>6.24</td>
<td>4.56</td>
<td>4.30*</td>
</tr>
<tr>
<td>Organization</td>
<td>5.29</td>
<td>6.50</td>
<td>1.87</td>
</tr>
<tr>
<td>Control</td>
<td>7.17</td>
<td>5.61</td>
<td>6.88*</td>
</tr>
</tbody>
</table>

*p < .05 (ANOVA)
family cohesiveness, less expressiveness, more conflict, and more control. The two groups did not differ on the organization factor.

Multiple Regression

In the second stage of data analysis, a stepwise multiple regression procedure was employed. Before running the regression, partial correlations were calculated in order to determine whether Zung depression score should be entered as one of the predictors of dimensional borderline score, given the significant correlation between Zung depression score and sexual and physical abuse. The correlation between the composite score of sexual abuse and Zung depression was nonsignificant with dimensional borderline score partialed out, \( r = .23, \ p > .10 \). However, the correlation between the composite score of sexual abuse and dimensional borderline score was still significant with Zung depression partialed out, \( r = .68, \ p < .001 \). Partial correlations with physical abuse evidenced a similar pattern. Whereas physical abuse remained significantly correlated with dimensional borderline score with Zung depression partialed out, \( r = .41, \ p < .01 \), partialing out the dimensional borderline score rendered the correlation between physical abuse and Zung
depression nonsignificant, \( r = .13, \ p > .10 \). These findings indicated that there was a strong relationship between the abuse indices and dimensional borderline score which remained significant in spite of the intercorrelation of depression and sexual and physical abuse.

The multiple regression was then run utilizing the forward stepwise routine and .25 significance level for entry into the model (B. Schulman, personal communication, Spring 1991). The composite scores on measures of sexual abuse, physical abuse, witness to domestic violence, and early separation experiences were entered in order to determine the best predictor(s) of the borderline dimensional score. Within the sample as a whole, sexual abuse was the best predictor of dimensional borderline score, \( F (1, 30) = 34.14, \ p < .0002 \), with the sexual abuse composite score accounting for 53% of the variance in the borderline dimensional score. Physical abuse composite scores entered the equation second, \( F (1, 29) = 3.62, \ p < .07 \), and accounted for an additional 5% of the variance. Domestic violence composite scores entered the equation third, \( F (1, 28) = 3.85, \ p < .06 \), and accounted for another 5% of the variance in the dimensional borderline score. Together, sexual abuse, physical abuse, and domestic violence composite scores accounted for 63% of the variance.
in the dimensional borderline score. Zero-order correlations for each of the composite scores and the dimensional borderline score and intercorrelations between the composite scores are listed in Table 9.

Insert Table 9 about here

In order to assess the generalizability of this three factor model, a double cross-validation procedure was conducted on two random (n = 16) halves of the sample. The forward stepwise routine was reconducted yielding a single factor model of sexual abuse, $F (1, 14) = 4.29, p < .06$, suggesting that the other two factors in the model did not add significantly beyond sexual abuse due to multicollinearity. By using the beta weights obtained in this sample to create new variables in the other (half) sample, a correlation coefficient for this model was obtained ($r = .81, p < .00005$), suggesting good generalizability of this single factor model to similar samples. The regression was then rerun using the entire sample and the sexual abuse predictor in order to yield the most stable coefficients. In the sample as a whole sexual abuse predicts 53% of the variance in the dimensional borderline score, ($F (1, 30) = 34.14, p < .0002$) and
Table 9. Intercorrelations between the Trauma Composite Score and Dimensional Borderline Score

<table>
<thead>
<tr>
<th></th>
<th>DIMDIAG</th>
<th>SA</th>
<th>PA</th>
<th>DV</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA</td>
<td>.72***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>.47**</td>
<td>.36*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DV</td>
<td>.22</td>
<td>.17</td>
<td>.88***</td>
<td></td>
</tr>
<tr>
<td>ES</td>
<td>.10</td>
<td>-.02</td>
<td>.22</td>
<td>.10</td>
</tr>
</tbody>
</table>

ABBREVIATIONS: DIMDIAG, dimensional borderline score; SA, sexual abuse; PA, physical abuse; DV, domestic violence; ES, early separation experiences

*p < .05 (two-tailed t tests)

**p < .006 (two-tailed t tests)

***p < .0002 (two-tailed t tests)
predicts 52% of the variance in the population of dimensional borderline scores (adjusted $r^2$).

Given the importance of the sexual abuse composite score in predicting the borderline score, a second stepwise multiple regression was run, again utilizing the forward stepwise procedure and .25 significance level for entry into the model. The seven variables of the sexual abuse composite score: presence of sexual abuse, duration greater than one year, relationship to the perpetrator, number of perpetrators, frequency greater than one time, force used, and subjective response to the experience were entered in order to determine the best predictor(s) of dimensional borderline score. The frequency measure entered the equation first, $F(1, 33) = 40.54, p < .0001$, accounting for 55% of the variance in the borderline score. Number of perpetrators entered the equation second, $F(1, 32) = 3.40, p < .08$, accounting for an additional 5% of the variance. Together, frequency and number of perpetrators accounted for 59% of the variance in the dimensional borderline score.
Discussion

The present study supported the hypothesis that the early experiences of depressed individuals with BPD are characterized by more total traumatic events (sexual abuse, physical abuse, witness to violence, and early separation experiences) than are early experiences of depressed individuals without BPD. While the retrospective and correlational nature of the data precludes causal conclusions, the findings in the present study add support for the hypothesized role of trauma in the development of borderline personality disorder.

Sexual abuse is again a very robust finding in the childhood histories of individuals with BPD. The number of individuals reporting sexual abuse histories in the present study (76 %) is consistent with another other inpatient sample (Ogata et al., 1990) and at least one outpatient sample (Herman, Perry, & Van der Kolk, 1989) of borderline individuals. It is believed that the sexual abuse histories reported in the present study are valid given the behaviors exhibited by individuals during reporting—shaking, tears, frequent requests for breaks, and the degree of detail required on the questionnaire. In fact, the data may even be skewed towards underestimating the incidence of sexual abuse given that those who were "afraid they would become too
upset" and refused to participate may have been fearing the emotional upset following disclosure. In addition, dissociative symptoms following an abuse history can result in underreporting on a questionnaire, without an interviewer to follow-up on clues which may suggest sexual abuse (Chu & Dill, 1990).

Episodes of physical abuse were more common and occurred more frequently for borderline individuals. Other studies (Ogata et al., 1990; Zanarini et al., 1989) found no differences in the rate of physical abuse between the BPD group and their control groups, whereas one study did report this finding (Herman, Perry, & Van der Kolk, 1989). All three of these studies included male and female subjects with males being overrepresented in the control groups in all studies except Ogata et al. (1990). Differences between the findings in the present study and in research by Zanarini et al. (1989) could be attributed to having a control group of males with antisocial personality disorder, inflating the incidence of physical abuse. Researchers have found that males with a history of physical or sexual abuse are most often diagnosed as antisocial personality disorder (cited in Van der Kolk, 1989). The second control group in Zanarini et al. (1989) was a group of "other personality disorders." Again, the base rate of physical abuse may be
inflated in a variety of different characterological disorders. Ogata et. al (1990) while not finding a higher frequency of physical abuse alone, reported that the incidence of multiple abuse experiences (sexual abuse and physical abuse) was higher for borderlines.

In the present study, individuals who experienced sexual abuse (mostly borderlines) concurrently experienced significantly more physical abuse. Chu and Dill (1990) noted that dissociative experiences are greater for individuals who have experienced both sexual and physical abuse, than for either type of abuse, alone (Chu & Dill, 1990). Clinically, borderline individuals are noted for their frequent and severe dissociative experiences (Van der Kolk, 1987). This clinical finding has been supported empirically by the finding that scores on the Dissociative Disorders scale had a significant correlation with scores on the Borderline Personality Disorder Scale (Herman, Perry, & Van der Kolk, 1989). Some researchers (eg. Ogata et al., 1990) have hypothesized that for borderlines, dissociative states, used defensively at the time of the abuse, may become a generalized defense in situations which evoke strong affect.

In the present study, both groups reported comparable numbers of early separation experiences. Significantly more
early, prolonged separations from primary caretakers have characterized a number of borderline samples in previous studies (e.g. Soloff & Millward, 1983; Zanarini et al., 1989). Soloff and Millward (1983) noted that borderline individuals had more separations from fathers than depressed or schizophrenic controls and Zanarini et al. (1989) noted that borderline individuals reported more separation experiences in the 0 - 6 age range than were reported by the antisocial control or "other personality" control groups.

The etiological role of early separation experiences has been posited by a number of analytic writers (Soloff & Millward, 1983). The findings in the present study suggest that matching both experimental and control groups on a diagnosis of depression washes out differences in early separation histories. These findings are consistent with the literature linking early separation experiences with adult depression (Brown, Harris, & Bifulco, 1986; Ragan & McGlashan, 1986). The two groups also reported comparable numbers of recent stressful or provoking events. Taking both sets of findings together, it appears that the BPD group did not differ from the depressive group on etiological factors associated with adult depression: recent stressful events and early separation experiences.
There is some suggestion that while the groups were
diagnostically similar, the quantitative nature of the
depression was different. That is, the BPD group reported
higher subjective levels of depression, more chronic
depressive histories, and more frequent psychiatric
hospitalizations, all of which are prototypic of BPD
(Farmer & Nelson-Gray, 1990). The three factor model of
depression hypothesizes that certain symptom-formation
factors, most likely occurring in early childhood, influence
the type of the depressive experience. Perhaps, the
frequent experiences of childhood trauma reported by the BPD
group constitute some of these symptom-formation factors and
are associated with these quantitative differences in
depression. This hypothesis was supported by the significant
correlation between powerlessness experienced in the
sexually abusive situation and level of subjective
depression (Zung) found in the present study. The
association between powerlessness and level of adult
depression is interesting given the characteristic
"cognitive triad" of adult depressives, indicating a
negative view of the outside world, the self, and the future
(Beck, 1979). This "cognitive triad" encompasses a
generalized negative view pervaded by a sense of
powerlessness.
Although sexual abuse emerged as the primary predictor for dimensional borderline score, these results should be interpreted with caution for a number of reasons. Clearly, the BPD group was characterized by chronic repeated trauma, physically and sexually. In looking at experiences associated with BPD, the synergistic effect of multiple trauma can not be overemphasized. In addition, the family environments of the BPD group were also distinctive. Borderline individuals' families were reported as being significantly more conflictual and controlling, with little cohesiveness and expressiveness. BPD families also were characteristically violent with borderline individuals witnessing more frequent episodes of violence against other family members if there was domestic violence in the home. Mothers were most frequently the perpetrators of physical abuse to siblings and to the borderline individuals.

Family environment and relationship to the mother are hypothesized moderator variables for the effects of sexual abuse (Friedrich et al., 1986). Given the present findings, it is possible that the general family climate and relationship with the mother potentiated the effects of the sexual and physical trauma. Having a family climate which is low on expressiveness and cohesiveness has implications for the development of one's interpersonal relationships and
relatedness to others. Interestingly, the cohesion, expressiveness, and conflict subscales all constitute the relationship dimensions of the instrument, indicating an environment for which there was little support, little opportunity to express one's feelings openly, and high aggression and conflict among family members. In addition, poor conflict resolution, poor communication avenues, and isolation within the family have been identified in other sources as family processes and tentative "risk" factors associated with sexual abuse (cited in Friedrich, 1990). Again, these results must be interpreted with caution as these processes may be an outcome of sexual abuse, rather than influencing the onset, or may be serving as a proxy for another variable (Finkelhor & Baron, 1986).

The high control subscale indicates that there were many rules and procedures for running family life. Having an overdeveloped rule system paired with frequent violations on one's person, physically and sexually, has implications for a child's ability to regulate boundaries. Clinically, individuals with BPD are characterized by loose boundaries and rapid, intense transference responses.

Both the pathogenic environment and the discrete trauma are important to consider when hypothesizing pathways for symptom development and to illustrate the complexity of data
interpretation. While realizing this complexity, some possible pathways linked specifically to the nature of the sexual trauma will be discussed. This perspective follows from the rationale that the constellation of borderline symptoms resemble adaptive or coping responses following sexual trauma.

As predicted, the BPD group did have more sexual abuse experiences in the 0 - 6 age range than the NBPD group using the planned comparison test. Earlier onset of sexual abuse for BPD has been noted in one outpatient study (Herman & Van der Kolk 1989). Research indicating that sexual abuse, occurring before age 6, constitutes a more traumatic experience is very equivocal and continues to be a very complex issue (Finkelhor & Browne, 1986).

Finkelhor and Browne (1986) suggest that it may not be age at onset that leads to a more traumatic impact, but rather the stages of development through which abuse persists. However, persisting through a number of stages of development is confounded with the quantitative variables of duration and frequency of abuse as well as with type of family environment. For example, longer periods of abuse connote more family chaos and less protection for child, as well as relationship to perpetrator, eg. family member more likely to have regular access to the child. These confounds
may explain some of the contradictory findings for the traumatic effect of age of onset across studies (Friedrich, 1990).

Interestingly, sexual abuse histories reported by one-half or more of the BPD group persisted through more than one developmental age period and usually lasted for years as opposed to a abuse experiences in the NBPD group which were single or brief experiences (2 months). Therefore, not only were individuals in the BPD group more likely to experience sexual abuse, but they also experienced the abuse more frequently, over longer periods of time, and were more likely to have multiple perpetrators. Duration was significantly correlated with the dimensional borderline score and frequency and multiple perpetrators predicted dimensional borderline score.

Rather than expecting a linear relationship between severity of outcome and age of onset of abuse, it is more likely that the abuse dynamics change during different periods of child development. For example, younger children may be less prone to stigmatization but may be more prone to experiencing overwhelming and confusing affect, resulting from premature sexualization. The dynamics for preliminary exploration of the processes underlying the traumagenic experiences of sexual abuse and the resulting
behavioral, affective, and interpersonal difficulties were explored further via Finkelhor and Browne's model (1988).

Significant correlations occurred for both predicted and unpredicted variables. Powerlessness in the sexually abusive situation correlated significantly with suicidality and impulsivity (unpredicted) and affective lability (predicted). The relationship between powerlessness and suicidality/impulsivity may illustrate a general hopelessness for having self-protection which is associated with intentional self-harm and self-damaging acts. Affective lability has been frequently associated with frequent, uncontrollable trauma, on the assumption that these overwhelming assaults disrupt the developmental progression toward affect modulation (Van der Kolk, 1987). Similarly, overwhelming affect may become cued with stimuli associated with the abuse experience, provoking strong affective responses to seemingly neutral stimuli (Courtois, 1988).

Interestingly, both traumatic sexualization and betrayal significantly correlated with suicidality and impulsivity (combined) and identity disturbance. While the relationship between traumatic sexualization and identity disturbance was predicted the other correlation was not. Having sexual relationships as a child has been associated
with sexualized behaviors (reflecting identity processes) in adolescence (Runtz & Briere, 1986) and adulthood (Courtois, 1988). Betrayal or violation of trust is a primary clinical issue with individuals who have been sexually abused and the absence of a significant correlation with the relationship measures is perplexing. Part of the difficulties in finding the hypothesized correlations may stem from limitations of the measures used. For example, betrayal was defined by the relationship to the perpetrator with nuclear family members and relatives designated as closer than friends. However, a child may be much closer to a neighbor, who is integrated in the family, than to an absent father. A lack of power, resulting from the small sample size is also a possibility. In addition, it is possible that the relationships between traumagenic factors associated with the trauma and resulting behaviors are highly intercorrelated rather than distinct phenomena.

There are a number of shortcomings in the present study. Although, the study matched the two groups on the Axis I diagnosis of depression, specific diagnoses were not matched and there was some indication that the two groups did differ on the frequency of bipolar disorder and adjustment disorder. Also, the groups were not matched for other personality disorders. Therefore, it is possible that
the findings are related to a specific depressive disorder or to a comorbid "other personality disorder." However, given that early childhood trauma of sexual abuse has distinguished BPD from a variety of controls in three other studies (Herman et al., 1989; Ogata et al., 1990; Zanarini et al., 1989) and early childhood physical abuse and witnessed violence in at least one other study (Herman et al., 1989), this interpretation is doubtful. The limitations of the retrospective and correlational nature of the study have been discussed. Furthermore, it is important that the findings only be generalized to inpatient samples, although similar findings were noted in outpatient (less pathological) samples (Herman et al., 1989; Zanarini et al., 1989). Finally, the questionnaire method, while having some advantages, (eg. anonymity and consistent presentation across subjects), also has some disadvantages, (eg. absence of interviewer to explore subtle clues and to evaluate consistency of the story).

The results of the present study highlight several directions for future research as well as for treatment.

Designating appropriate control groups continues to be an important consideration for etiological research of BPD. In addition to continued attempts at more precise diagnostic matches, symptom focused research is another, less

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frequently utilized option. Symptom focused research has been proposed as a rigorous, direct method of studying psychiatric phenomena in order to derive the underlying mechanisms (Persons, 1986). These mechanisms can then be used to improve diagnostic classification. Directly studying borderline symptoms is consistent with the hypothesis that these symptoms are related to trauma, and are psychological processes, not diseases. The use of prospective studies for "at risk" populations are also needed in order to study the transformation of the phenomenon over time and to elucidate the temporal relationship between the trauma and behavioral difficulties.

In addition to methodological refinements for studying psychiatric symptoms, strategies for studying sexual trauma are also indicated. Operational definitions of the phenomena under study are particularly important, given the various definitions used across studies. Also, recognizing that sexual abuse is a heterogeneous phenomenon and classifying different aspects of abusive experiences is helpful in determining the nature of children's responses as well as long term symptoms. Furthermore, rather than casting a wide net for the impact following sexual trauma, studies need to be specifically designed to test hypotheses about traumagenic factors and responses. Family variables
are also important as clearly the abusive experiences occur within a dynamic context. Studying sexually abused children with a matched nonsexually abused sibling would be helpful in isolating the effects of the sexual trauma.

Clinically, the present study identifies the importance of assessing early childhood experiences of individuals with BPD. Multimodal assessment utilizing interview and questionnaire may prove helpful. Conceptualizing borderline symptoms as coping or adaptive processes provides an opportunity for the therapist and client to conceptually link fairly disparate clinical problems. Furthermore, exploration of early childhood can uncover antecedents to seemingly unpredictable behavior and multiple crises. At the same time, both the chronic nature of abuse, multiplicity of abuse experiences, and the pathogenic nature of the BPD families indicates that more comprehensive treatment strategies may be needed than those currently offered to treat "sexual trauma only". Recently, researchers have highlighted the importance of integrating a variety of theoretical perspectives to encompass the range of difficulties experienced by the borderline patient (Westen, 1991). Finally, this growing body of research offers convergent validity for the borderline individual's reports of repeated and severe trauma.
There is probably no other disorder for whom empathy and patience are more needed. Hopefully, these trauma histories promote a shelter of tolerance and understanding so needed by the therapist during the many stormy crises experienced by borderline individuals.
Summary

The present study replicates several studies' findings of traumatic events, including sexual abuse, physical abuse, and witnessed violence, in the childhoods of borderline individuals (Herman et al, 1989; Ogata et al, 1990; Zanarini et al, 1989). In addition, this study raises questions about the specificity of early separation experiences as an etiological agent for BPD, and provides support for the contention that these experiences are more associated with adult depression than with borderline pathology. Sexual abuse continues to be a very robust finding and was a significant predictor of dimensional borderline score. The context or family environments of borderline individuals proved distinctive and were characteristically conflictual, unsupportive, governed by many rules, and offered little opportunity for the open expression of feelings. These family processes have been associated with sexually abusive families and tentatively have been suggested as risk factors for sexual abuse. Several factors specific to the sexual abuse trauma were discussed as hypothesized influences in the development of borderline symptoms.
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Appendix A

Diagnostic Criteria: Borderline Personality Disorder

A pervasive pattern of instability of mood, interpersonal relationships, and self-image, beginning by early adulthood and present in a variety of contexts, as indicated by at least five of the following:

(1) A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of overidealization and devaluation

(2) Impulsiveness in at least two areas that are potentially self-damaging, e.g., spending, sex, substance use, shoplifting, reckless driving, binge eating (Do not include suicidal or self-mutilating behavior covered in (5).)

(3) Affective instability: marked shifts from baseline mood to depression, irritability, or anxiety, usually lasting a few hours and only rarely more than a few days.

(4) Inappropriate, intense anger or lack of control of anger, e.g., frequent displays of temper, constant anger, recurrent physical fights

(5) Recurrent suicidal threats, gestures, or behavior, or self-mutilating behavior

(6) Marked and persistent identity disturbance manifested by uncertainty about at least two of the following: self-image, sexual orientation, long-term goals or career choice, type of friends desired, preferred values

(7) Chronic feelings of emptiness or boredom

(8) Frantic effort to avoid real or imagined abandonment (Do not include suicidal or self-mutilating behavior covered in (5).)
Appendix B

The following is a list of the diagnostic criteria for borderline personality disorder and the associated dimensional rating system used in the present study. The dimensional system is a combination of Lorranger's (1988) system from the PDE as well as an extension of this system created by Terri Weaver in collaboration with George Clum.

1. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of overidealization and devaluation

Do you get into intense and stormy relationships with other people with lots of ups and downs? Where your feelings run "hot" and "cold" or change from one extreme to the other.

How many relationships has this happened

(0) denied or unsupported
(1) one or two relationships
(2) more than one or two relationships

As a result of these feelings do you get into a pattern of repeatedly entering and leaving relationships?

(0) denied or unsupported
(1) one or two relationships
(2) more than one or two relationships

Total dimensional score range: 0 – 4

2. Impulsiveness in at least two areas that are potentially self-damaging

Have you ever had a problem with gambling or spending too much money?

Have you ever been drunk, "stoned" on marijuana, abused drugs or used them to get high?

Have you ever gone on eating binges to the point that it was a problem for you or others were concerned about you?

Have you ever shoplifted?

Have you ever been stopped by the police for reckless driving?
Have you ever had a problem with getting into sexual relationships quickly or impulsively?

Each endorsed item receives a score of one

Total dimensional score: 0 - 6

3. Affective instability: marked shifts from baseline mood to depression, irritability, or anxiety, usually lasting a few hours and only rarely more than a few days

Do you often change from your usual mood to feeling very irritable, very depressed, or very nervous?

(0) Denied, rare or not supported by examples
(1) Occasionally experiences affective instability
(2) Frequently experiences affective instability

In addition one point is scored for each of the three types of mood changes: depression, irritability, and anxiety.

Total dimensional score: 0 - 5

4. Inappropriate, intense anger or lack of control of anger

Do you sometimes feel very angry without a good reason?

Do you ever lose your temper and have tantrums or angry outbursts?

Do you ever throw, break, or smash things?

Do you ever hit or assault people?

(0) denied or rare
(1) Occasionally experiences or verbally displays inappropriate, intense anger
(2) Frequently experiences or verbally displays inappropriate, intense anger.

In addition, one point is scored for each of the three types of angry outbursts: verbal, breaking and smashing things, and assaulting people.

Total dimensional score: 0 - 5

5. Recurrent suicidal threats, gestures, or behavior, or self-mutilating behavior
Have you ever threatened to commit suicide? How many times?

Have you ever made a suicide attempt or gesture? How many times?

Have you ever deliberately cut yourself, smashed your fist through a window, burned yourself, or hurt yourself in some other way?

Each of the responses to the above-stated questions is quantified and scored in the following way:

<table>
<thead>
<tr>
<th>Frequently</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threats</td>
<td>0-2</td>
<td>3-5</td>
<td>6-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Gestures</td>
<td>0-2</td>
<td>3-5</td>
<td>6-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Attempts</td>
<td>0-2</td>
<td>3-5</td>
<td>6-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Self-Mutilation</td>
<td>0-2</td>
<td>3-5</td>
<td>6-10</td>
<td>&gt;10</td>
</tr>
</tbody>
</table>

1 or 2 times score 1  
3-5 times score 2  
6-10 times score 3  
>10 times score 4  

Total dimensional score: 0 - 16

6. Marked and persistent identity disturbance manifested by uncertainty about self-image

Are you so different at different times that you don't know what to expect of yourself?

Are you so different with different people or in different situations that you don't behave like the same person?

(2) Obvious and well documented persistent uncertainty about self-image
(1) Probable but less well documented persistent uncertainty about self-image
(0) Absent, doubtful or not well supported

What are your long term goals in life?
Do they change often?

(2) Obvious and well documented persistent uncertainty about long-term goals
(1) Probable but less well documented or persistent uncertainty about long-term goals
(0) Absent, doubtful, or not well supported

Do you have trouble deciding what's morally right and wrong?

Do you have trouble deciding what's important in life

(2) Obvious and well documented persistent uncertainty about values
(1) Probable but less well documented or persistent uncertainty about values
(0) Absent, doubtful, or not well supported by examples

Do you have a lot of trouble deciding what type of friends you should have?

Does the kind of people you have as friends keep changing?

(2) Obvious and well documented persistent uncertainty about type of friends to have
(1) Probable but less well documented persistent uncertainty
(0) Absent, doubtful, or not well supported by examples

Have you ever been uncertain whether you prefer a sexual relationship with a man or a woman?

(2) Has considerable doubt or uncertainty about sexual orientation which causes subjective distress
(1) Has considerable doubt or uncertainty about sexual orientation which sometimes causes subjective distress
(0) Denied, rare, does not cause subjective distress

Each of these questions relates to identity disturbance.

Total dimensional score: 0 - 10

7. Chronic feelings of emptiness or boredom?

Do you often feel bored or empty inside?

(2) Frequent feelings of emptiness or boredom that are distressing or lead to other maladaptive behavior
(1) Occasional feelings of emptiness or boredom that are
distressing and lead to maladaptive behavior.

(0) Denied, rare, or not associated with distress or maladaptive behavior.

In addition each of the following maladaptive behaviors were queried.

Do you frequently find yourself going out to avoid emptiness or boredom?

(0) Denied or rare
(1) Frequently goes out to avoid emptiness or boredom.

Do you frequently find yourself calling friends to avoid emptiness or boredom?

(0) Denied or rare
(1) Frequently calls others to avoid emptiness or boredom.

Total dimensional score: 0 - 4

8. Frantic efforts to avoid real or imagined abandonment

Do you ever find yourself frantically trying to do something to stop someone close to you from abandoning you?

(2) Frequent frantic efforts to avoid real or imagined abandonment
(1) Occasional frantic efforts to avoid real or imagined abandonment
(0) Denied, rare, or not supported by examples

In addition, each of the following behaviors were queried.

Are you frequently told that you are overly demanding for reassurance?

Do you frequently ask for assurance that someone loves you?

Have you ever physically tried to prevent someone from leaving?

Do you frequently cry and plead for someone not to leave?

Each of the above can get a response of:

(0) Denied or unsupported
(1) Frequently engages in the above behavior
VITA

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Personal Data

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Date of Birth: April 12, 1963

Current Position: VIRGINIA POLYTECHNIC AND STATE UNIVERSITY
                  Graduate student in the
                  CLINICAL PSYCHOLOGY PROGRAM
                  August 1989 - present

Educational Background

1981-1985 BACHELOR OF SCIENCE IN PSYCHOLOGY from
            the UNIVERSITY OF FLORIDA

1989-1991 MASTER OF SCIENCE, CLINICAL PSYCHOLOGY,
           VIRGINIA POLYTECHNIC AND STATE
           UNIVERSITY

Honors

Graduation with High Honors in Psychology, 1985
Florida Academic Scholar's Scholarship, 1981
Dean's List, 1981-1985

Clinical Experience

1991 EXternship, Employed for 6 months as an
      extern at the child and adolescent
      inpatient unit, St. Albans Hospital.
      Responsibilities include individual
      , group, and family therapy; assessment
      including intelligence, achievement, and
      functional analysis of
      behavioral problems, and serving as
      facilitor for an ongoing group for the
      management of anger expression
      and implementation of assertiveness skills.
      Supervisor: David Hamilton, Ph.D.
1989-1991

GRADUATE PRACTICUM WORK. As part of the requirement of the clinical program, graduate students conduct a variety of individual, family, and group therapies at the Psychological Services Center. Sessions are viewed with ongoing supervision by a licensed clinical psychologist. Clinical responsibilities have included a variety of clinical cases with an emphasis on mood and anxiety disorders, including panic disorders and obsessive compulsive disorders, and work with incest survivors. Supervisors have included George Clum, Ph.D., Robert Stephens, Ph.D., Carolyn Picket, Ph.D., and Richard Eisler, Ph.D.

Summer, 1990

SUMMER PRACTICUM Employed during the summer as one of four therapists for the Psychological Services Center. Caseload averaged from 8 - 12 clients and the clinical responsibilities included conducting evaluations and assessments for attention deficit disorder, individual, marital, and family therapy.

1990 - 1991

WOMEN'S ISSUES GROUP Designed, organized, and co-led a women's process-oriented group focusing on interpersonal relationships, self-esteem, problem-solving, and group dynamics.

Spring, 1991

INCEST SURVIVOR'S GROUP Co-led an incest survivors group for women. This group incorporated a variety of approaches including a didactic educative component, mutual support, experiential exercises to facilitate affective responses, and some group processing to explore issues of assertiveness and interpersonal relationships.

1988 - 1989

MENTAL HEALTH THERAPIST I Fairfax County Women's Shelter. This 12 bed residential facility functions on a number of different levels. First, the shelter serves as a
refuge for women and their children who are fleeing a physically dangerous domestic situation. Second, the shelter functions as an educational and therapeutic program, providing informal individual and group therapy. I worked as primary case manager for clients and her family and served as a conduit of referral for housing, social services, vocational services, and legal services. I co-led a therapeutic group, answered a crisis hot line, and conducted individual therapy sessions.

1987 - 1988

MENTAL HEALTH THERAPIST I Crisis Care House (CCH). This three bed residential program is operated by the Residential Services Unit of Mount Vernon Center for Community Mental Health. As sole Staff member on duty, my responsibilities included delivering crisis care stabilization services, assessing suicidal and personal risk, counseling individuals and groups, and designing and implementing service plans. In addition, CCH staff acts as a liaison with collateral service providers to insure continuity of care.

1985-1989

NORTHWEST CENTER FOR COMMUNITY MENTAL HEALTH: In this position I worked as an outreach worker for the early intervention services program. I worked with a developmentally delayed baby providing gross motor, fine motor, and verbal stimulation. I also structured the baby's developmentally disabled mother teaching parenting and daily living skills.

MOUNT VERNON CENTER FOR COMMUNITY MENTAL HEALTH: I worked as a co-leader in the prevention/early intervention unit. I co-led a group which instructed behavioral techniques to parents in order to decrease their child's whining, tantrums, and misbehavior.

VETERAN'S ADMINISTRATION VOLUNTEER: Volunteered in a one-to-one program to interact with nursing home residents who were exceptionally withdrawn
and without family support.

Research Experience

1990- Masters Thesis: Early Family Environments and Vulnerability Factors Associated with Borderline Personality Disorder. This study explored early family environments of inpatient individuals with borderline personality disorders with Axis I depressives (only) serving as the control. Variables of interest included early sexual and physical abuse, witnessed violence and early separation experiences. Other measures included administration of the Structured Clinical Interview for DSM - III-R and the Personality Disorders Exam.

1991 - Grant: Adolescent Chronic Suicide Ideators, Currently working as the therapist on this NIMH grant which is targeting adolescents between the ages of 18 and 24 who are experiencing chronic suicide ideation. Therapy group is based on a social support model. Previously worked as a diagnostic assessor on this project. Assessment instruments include Structured Clinical Interview for DSM-III-R, Personality Disorder Exam, Beck Interview for Suicide Ideation, and a variety of self-report instruments. Responsible for assessing Axis I and Axis II disorders as well as detailed information regarding suicidal thoughts and suicidal risk. 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. Also conducted individual and group therapy for panic disorder with these individuals. Supervisor: George Clum, Ph.D.

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'S HONOR THESIS: Auditory Thresholds for Sustained and Transient Stimuli in 6-month-olds, pending publication as co-author. Principal Investigator: Kathleen Berg, Ph.D.

Teaching Experience

1991 Co-led an advanced therapy workshop for conducting individual therapy with incest survivors. This workshop was presented to the New River Valley Community Mental Health Center.

1989-1990 Participated as a graduate teaching assistant for the discussion sections of the Introductory Psychology Class.

Professional Affiliations

Student member, American Psychological Association, Division 12

Student member, Association for the Advancement of Behavior Therapy

Paper Presentations


Present Clinical and Research Interests

1. The pathogenesis of borderline personality disorder.

2. Psychic Trauma and short and long term symptomatology.


4. Assessment and treatment interventions for incest survivors.

5. Women's issues and feminist therapy.

Terri K. Deacon, MD