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The Relationship Between Service Utilization and Psychiatric Hospitalization Among People Diagnosed with Borderline Personality Disorder

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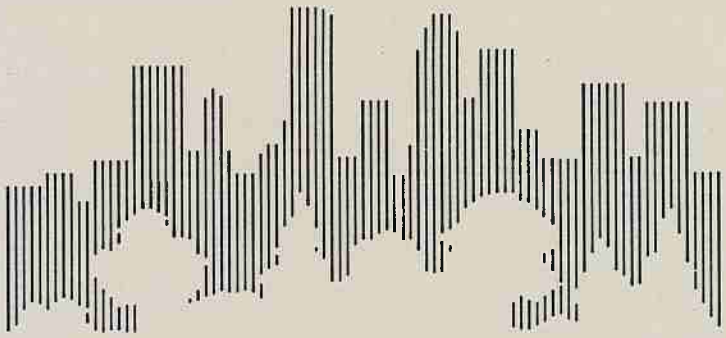

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MASTERS IN SOCIAL WORK THESIS

Craig S. Schwalbe

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1995

The Relationship Between Service Utilization and Psychiatric Hospitalization Among People Diagnosed with Borderline Personality Disorder

by

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Abstract of Thesis

The Relationship Between Service Utilization and Psychiatric Hospitalization Among People Diagnosed With Borderline Personality Disorder

Methodology: Secondary Analysis

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April 19, 1995

This exploratory study was conducted to determine the relationship between service utilization and psychiatric hospitalization among people diagnosed with borderline personality disorder (BPD). Secondary analysis was performed on the case files of 12 female adult clients of a rural county social service mental health department who are diagnosed with BPD. Results indicate that service utilization by this population is comparable regardless of time spent in acute care psychiatric hospitals. Results further indicate that history of childhood sexual abuse was a predictor of hospitalization in this sample. A replication of this study which utilizes multiple methods is recommended. Implications for direct social work practice and policy are described.

Prologue

Having practiced social work in the mental health field for four years, I have learned that the most important gift I give is the capacity to empathize with clients. In my experience, the most powerful social work moments that occur are when I have been able to look clients in the eye and say with conviction that I understand the emotions and pain that they carry through life. It is an extraordinary experience for me when that happens, and I believe that my clients profit when we connected like that.

Not suprizingly, then, some of my least productive social work interventions have been characterized by intellectualized, mechanical relationships with clients. In these relationships, I remain disconnected with the people I'm attempting to help and instead interact with them as roles. For example, there have been times, I must admit, when I have behaved like I've understood the experience of parenting emotionally disturbed children even though I haven't taken the time to listen to parents' stories. They knew that my understanding was arrogant, intellectual, and false.

I recall an experience I had recently with a client in a group therapy session. This client, known by the agency as having been diagnosed with borderline personality disorder, often struggled with depression. On one occasion, she reported during a group session that she had felt suicidal during the past few days. As a group leader, my responsibility was to respond to this revelation and insure that the safety of that client could be preserved. Instead of responding to the pain brought to the group by the client, however, I spent my energies going through the motions of "empathy," while trying to determine if her revelation of suicidal ideation was in fact a means toward manipulating greater attention of her by the group. I had "learned" that people diagnosed with borderline personality disorder often manipulated professionals for attention. Fortunately for her my clinical supervisor, who was present for this group session, salvaged the session for the client by responding directly and genuinely to her pain and then negotiating a safety contract.

Reflecting on this experience, I realized that I was developing a bias against people who carry the diagnosis of borderline personality disorder. I found myself unable to empathize with people experiencing emotional pain which is characteristic of this disorder. I was instead experiencing them in the role of person diagnosed with borderline personality disorder. In part, I believe that this bias was generated by participating in the mental health field, which often refers to "borderlines" as hopeless, chronic, and manipulative. It has often been said within professional circles that when clients make professionals angry, they are likely to have a borderline personality disorder. In this environment, and with my own tendency to be judgemental, I was losing my capacity to empathize with people who carried this diagnosis, and consequently was losing my ability to serve them effectively.

To counteract this problem, I used the opportunity presented by this thesis to study the phenomenon of borderline personality disorder. It was my intent to study the experience of those who are diagnosed with this disorder. I hoped that this knowledge would aid in my ability to tune in and empathize with the struggles of people who experience this disorder, counteracting my own uninformed tendency to judge them.

This task has increased my understanding and empathy for people diagnosed with borderline personality disorder. I was especially touched by previous research and the findings of this study that many people diagnosed with borderline personality disorder are survivors of childhood sexual abuse and that childhood sexual abuse is associated with negative outcomes for people in this population. I was also impressed with the research findings of others that the symptoms of borderline personality disorder become less acute over time. Together with the other dimensions of the experience of people diagnosed with the disorder reported on in this study, I gained a greater appreciation for the struggles of these people, and of their hopes for improved lives.

And so this thesis accomplished for me what I had hoped it would, that I would begin to appreciate the experiences and pain encountered by people diagnosed with

borderline personality disorder. While I can in no way dictate how readers of this report will be impacted by it, it is my hope that they will find in it information that increases their capacity to empathize with people diagnosed with borderline personality disorder and to honor their experience. If it does that, then I will be satisfied that I have made a contribution to the practice of social work in mental health settings.

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Introduction

Social workers in mental health settings often encounter people who are diagnosed with borderline personality disorder (BPD). In treatment they are described as tending to alternate between overidealizing the social worker and being ragefully disappointed by the social worker. In addition, they are described as frequently impulsive, reckless, suicidal, and often terminate treatment abruptly (Johnson, 1991). Because of marital problems, substance abuse, depression, and other social and psychological problems, they present themselves for treatment by mental health professionals more frequently than the general population (Swartz, Blazer, George, & Winfield, 1990). Because of these problems, it is important for social workers to be educated about the experience of people diagnosed with BPD and their treatment.

This study is concerned with the treatment of people diagnosed with borderline personality disorder. It will report upon the results of a literature review conducted in the psychological and social work literature regarding the various dimensions of BPD and how it impacts upon the lives of those diagnosed with the disorder. Based on this literature review a research methodology was developed to answer the question: how is service utilization by people diagnosed with borderline personality disorder related to episodes of psychiatric hospitalization.

A prerequisite to defining borderline personality disorder and carrying out this study is a definition of personality disorders generally. The Diagnostic and Statistical Manual of Mental Disorders: fourth edition (DSM - IV) (1994) defines personality traits as "enduring patterns of perceiving, relating to, and thinking about the environment and oneself that are exhibited in a wide range of social and personal contexts." (p. 630) Personality traits become personality disorders when personality traits are "inflexible and maladaptive and cause significant functional impairment or subjective distress." (p. 630) The DSM - IV lists its general criteria for personality disorders in the following manner:

A. An enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture. This pattern is manifested in two (or more) of the following areas:

1. cognition (i.e., ways of perceiving and interpreting self, other people, and events)
2. affectivity (i.e., the range, intensity, lability, and appropriateness of emotional response)
3. interpersonal functioning
4. impulse control

B. The enduring pattern is inflexible and pervasive across a broad range of personal and social situations.

C. The enduring pattern leads to clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The pattern is stable and of long duration and its onset can be traced back at least to adolescence or early adulthood.

E. The enduring pattern is not better accounted for as a manifestation or consequence of another mental disorder.

F. the enduring pattern is not due to the direct physiological effects of a substance (e.g. a drug of abuse, a medication) or a general medical condition (e.g., head trauma).

(p. 633)

A biopsychosocial model for understanding personality disorders is described by Paris (1993a). Biological factors leading to the development of personality are understood as the temperament that people are born with. Temperaments are behavioral dispositions which are evident early in life. An example of temperament is the activity level of infants and toddlers. Temperament interacts with environmental factors, resulting in learned patterns of behavior, thought, and emotion which are consistent across contexts. Psychological risk factors for BPD include the experience of trauma and lack of nurturance. In various social environments, one could observe that personality traits may be adaptive in different contexts. For instance, impulsive traits, while adaptive

among peer groups that value risk taking and thrill seeking behavior, are not adaptive in most school settings.

In this context of personality disorders, borderline personality disorder, one of eleven personality disorders identified by DSM - IV is defined and understood. The diagnosis of BPD is distinguished from other personality disorders by a higher likelihood of affective problems and anxiety, the experience of short term episodes of psychotic thought, self injurious behavior and suicidal thought and attempts, and fear of abandonment/engulfment in interpersonal relationships (Zanarini, Gunderson, Frankenburg, & Chauncey, 1990). The DSM-IV criteria for a diagnosis of borderline personality disorder are:

> A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:
>
> 1. frantic efforts to avoid real or imagined abandonment.
> 2. a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation
> 3. identity disturbance: markedly and persistently unstable self-image or sense of self
> 4. impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex substance abuse, reckless driving, binge eating).
> 5. recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior
> 6. affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)
> 7. chronic feelings of emptiness
> 8. inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights)
> 9. transient, stress-related paranoid ideation or severe dissociative symptoms
>
> (p. 654)

In a National Institute of Mental Health Epidemiologic Catchment Area Program survey, 1541 people randomly selected from 5 locations throughout the continental United States were surveyed about their health status (Swartz, Blazer, George, & Winfield, 1990). Included in this survey was a measure of borderline personality disorder. Swartz, et al. found that 1.8 percent of the total population interviewed met criteria for the disorder. Among those who met criteria for BPD, 73.2 percent were female, (compared to 52.2 percent of the total study population) and 46.9 percent were never married (compared to 26.2 percent of the total study population). Those meeting BPD criteria were significantly more likely to have been diagnosed with other mental disorders both within the past year and within their lifetimes than those who did not meet BPD criteria. Moreover, those meeting BPD criteria were significantly more likely than those not meeting BPD criteria to experience marital problems, alcohol and drug problems, and sexual problems ($p<.05$). Given the experience of these problems, those meeting the criteria for BPD were statistically more likely to report using at least three mental health visits within the past six months than the control group (30.3 percent vs 3.3 percent) and were more likely to have been hospitalized for psychiatric problems (19.5 percent vs. .7 percent).

The incidence of psychiatric hospitalizations is a concern for public social service agencies such as Rice County Social Services (RCSS). RCSS, a rural county agency located 40 miles south of Minneapolis, Minnesota, serves people diagnosed with many mental health disorders, including borderline personality disorder. Services offered by RCSS to residents of Rice County experiencing severe mental illness' include case management, community support, outpatient psychotherapy, and outpatient psychiatry. Of particular interest to County social service agencies is if delivery of these services to people experiencing severe mental illness affect the level of need for psychiatric hospitalizations among their clients. This research project was conducted to explore how

the service utilization by clients of RCSS who are diagnosed with borderline personality disorder was related to the incidence of psychiatric hospitalizations.

Literature Review

The literature reviewed is divided into three sections. Etiological perspectives are reported initially. These include reports on the contributions of object relations theory, the traumatic childhood perspective, and a newly emerging genetic/inheritance perspective. Descriptions of several of the symptoms of borderline personality disorder are described next, focussing especially on affective problems, suicidal behavior, self injurious behaviors, and substance abuse related problems. Finally, the long term outcome for people diagnosed with BPD is reviewed through analysis of long term outcome studies and studies that describe variables which are related to variations in the long term course of the disorder.

Etiology

To contribute to the present study of the relationship between service utilization and hospitalization, a review of the etiology of borderline personality disorder was conducted to identify variables from past experiences and physiological conditions that impact upon the need for psychiatric hospitalization. The three primary etiological perspectives described in the literature include object relations theory, perspectives on childhood trauma, and on the physiological/inheritance perspective.

Object Relations.

According to object relations theory, people relate to the world through the lenses of past experience known as "objects" (Nichols and Schwartz, 1991). The emotions attached by people to their experiences with their social environment are based upon "internal objects." Internal objects are memories of people and roles experienced early in life. Internal objects are incorporated into our personalities, especially during infancy, through a process called "internalization." According to Nichols and Schwartz, babies

are born with only love and hate filters through which infants' environments are experienced and internalized. During infancy, a primitive internalization process known as introjection, where memory traces of objects are stored, is used to internalize experiences which are interpreted through their filters as either all good or all bad. Therefore, early internal objects are either experienced as all bad or as all good. Bad objects, such as a dog's loud bark, generate fear and anxiety, while good objects, like a soothing mother, alleviate this fear and anxiety.

During infancy, Nichols and Schwartz continue, infants begin to separate from their mothers. By the time children are weaned, they are generally able to experience mother and self as separate entities, and are able to integrate good and bad qualities of similar internal objects into consistent internal objects. For example, the mother object is experienced with both good and bad qualities of the real mother, with the result that the child is able to continue to love mother even when mother is experienced as not rewarding or pleasurable.

Kernberg and Masterson are two prominent theorists who use the object relations perspective to explain borderline personality disorder (Westen, Ludolph, Lerner, Ruffins, & Wiss, 1990). According to these theorists, the primary etiological factor in the development of BPD is the failure to integrate good and bad object relations during the separation-individuation phase of development. When separation from the mother figure is not encouraged and affirmed, the future BPD personality develops two object relations. First, a "bad" object relation of the mother is internalized for abandoning the child during natural attempts to separate from the mother figure. Feelings associated with this object are hatred and rage. Second, a "rewarding" object relation of the mother figure, who is perceived to continue providing the child with support and nourishment when the child discontinues normal attempts at separating from mother. The feelings associated with this rewarding object are soothing. It is through these split objects that people diagnosed

with BPD interact with the world. The result is that they are unable to love during times when objects of love do not gratifying their needs (Westen, et al. 1990).

Object relations theorists suggest that object integration is evident in people when their object relations are characterized by positive emotions (Arnow & Harrison, 1991). Testing this hypothesis, Arnow and Harrison studied the representational world of people diagnosed with BPD by examining their early memories. They asked 45 outpatient clients of a mental health clinic, including 15 diagnosed with BPD, to describe 7 early memories and the feelings associated with those memories. They found that on measures of negativity, those diagnosed with BPD identified more negative feelings associated with early memories than did other groups. Arnow and Harrison suggest that this result supports the hypothesis that, due to a prevalence of negative early memories, people diagnosed with BPD often have less integrated internal object relations than clinic patients who are not diagnosed with BPD.

Baker, Silk, Westen, Negg, & Logr (1992) also found that in their study using an adjective checklist to describe parents, those people diagnosed with borderline personality disorder had more negative views of their parents than did others who were not diagnosed with BPD. According to Baker, et al., this study adds further support to a lack of object integration among people diagnosed with BPD.

Further exploration of object relations was included in a study by Westen, Ludolph, Lerner, Ruffins, and Wiss (1990). Using the Thematic Apperception Test (TAT), adolescent patients of a psychiatric hospital were assessed for the characteristics of their object relations. Thirty-three adolescents diagnosed with BPD and 21 adolescent patients with other diagnoses were compared along four dimensions of object relations. Westen, et al. found that those diagnosed with BPD viewed the world of people and relationships as more malevolent than the group not diagnosed with BPD; that the group diagnosed with BPD showed the lowest capacity for emotional investment with other people; and were least able to understand social causality. Researchers concluded that the

thought process of people diagnosed with BPD is characterized by greater egocentrism than people not diagnosed with BPD (Westen, et al. 1990).

Research into the object relations of people diagnosed with BPD is used to support the hypothesis that those object relations remain unintegrated and split in this population. As reported above, their internal object relations are characterized by greater malevolence and egocentrism than those whose object relations have been integrated (Arnow & Harrison, 1991, Baker, et al. 1992, Westen, et al. 1990). Unfortunately, no studies were located which tested the central assumption of this theory, that the split object relations characteristic of people diagnosed with BPD have their origins in the separation-individuation phase of development. Therefore, while this theory describes well the nature of how people interact with their social environments, it remains theoretical speculation as an etiologic theory of the development of BPD.

Childhood Trauma.

An alternative etiological explanation for the development of BPD is based on research which identifies childhood experiences of abuse, especially sexual abuse, as common among people diagnosed with BPD. As will be seen from the studies described below, BPD can be understood as a syndrome of adaptations made during childhood to traumatic events. These adaptations, which were at one time protective for the people who experienced them, continue into adulthood as maladaptive personality traits. As such, BPD can be considered a form of post traumatic stress reaction to trauma experienced during childhood.

To begin establishing the plausibility of the post traumatic explanation of BPD, establishing an association between childhood trauma and BPD is necessary. One study of this relationship was completed with 50 women admitted consecutively into a psychiatric hospital (Lobel, 1992). The women were interviewed and tested for history of childhood sexual abuse and diagnosis of BPD. Of the participants, 30 reported having been sexually abused as a child; 20 denied this experience. Of those reporting a sexual

abuse history, 60 percent (18 patients) were diagnosed with BPD. Of those denying a history of sexual abuse, only 20 percent (4 patients) were diagnosed with BPD. Researchers observed that among their sample of patients, women who were sexually abused as children were statistically more likely to be diagnosed with BPD than those who were not sexually abused as children ($p<.0001$) (Lobel 1992).

Further evidence for the association of childhood trauma, especially sexual abuse, with a diagnosis of BPD is noted in the findings of a study of the relationship between childhood sexual abuse history and self injurious behaviors among people diagnosed BPD (Wagner & Linehan, 1994). Researchers were interested in how the experience of childhood sexual abuse impacted BPD symptom severity. Thirty-seven females participating in an outpatient program designed to reduce the incidence of self injurious behaviors consented to participate in this study. All research participants met DSM-III-R criteria for BPD and had at least two episodes of self injurious behaviors in the past five years. Sexual abuse had been experienced by 76 percent of the participants during their childhoods. Those who experienced sexual abuse as children placed themselves at significantly greater medical risk during episodes of self injury than did those who did not report history of sexual abuse ($p=.05$) as measured by the researcher constructed "Parasuicide History Interview." In this sample not only was BPD strongly associated with childhood sexual abuse, but childhood sexual abuse was also associated with severity of self injurious behaviors.

Extending the study of childhood trauma's relationship with BPD to include other traumatic experiences, Weaver and Clum (1993) added physical abuse, witnessed violence, early separations from caretakers, and family climate, as potential etiological factors in their study of BPD. Researchers completed their study of early family environments with 36 women admitted to an inpatient psychiatric hospital with a diagnosis of depression. A diagnosis of BPD was given to 17 of these women, while 19 did not qualify for the diagnosis. The early family environments of these groups were

compared. The group diagnosed BPD was significantly more likely than the non-BPD group to experience sexual abuse as children ($p<.0001$), as well as to experience abuse that was of longer duration, with genital penetration, and by more than one abuser during the course of childhood. Physical abuse, defined as physical marks, bruises, breaks in the skin, or injury requiring medical treatment, was experienced during childhood by the BPD diagnosed group significantly more often than by the non-BPD group ($p<.0001$). Physical abuse was also witnessed during childhood more frequently by the group of people diagnosed BPD ($p<.0001$). Family climates of the group diagnosed BPD were less cohesive, and exhibited less familial expressiveness than the families of the non-BPD diagnosed group ($p<.05$). Early separations from caretakers occurred at a similar rate for both groups. Using multiple regression analysis Weaver and Clum explored the relative contributions of each of the family environment variables for predicting BPD within the sample. History of sexual abuse was the strongest predictor of BPD. The authors of this study concluded that traumatic early environments, especially including sexual abuse, are significantly associated with the development of BPD in adults (Weaver and Clum,1993).

The role of childhood sexual abuse in the developmental histories of people diagnosed with BPD was also addressed in a study completed by Links and van Reekum (1993). Their study explored which among the following variables made the most significant statistical contribution towards predicting BPD:

1. early loss and separation
2. physical abuse by caretakers
3. sexual abuse by caretakers
4. psychiatric impairment of parents. (p. 472)

Eighty-eight people diagnosed with BPD who were admitted to a psychiatric hospital were interviewed for this study. Intercorrelations showed that parental psychiatric impairment was significantly related to physical abuse, early separation, foster home placement, divorce/separations, and sexual abuse. Sexual abuse was additionally correlated with physical abuse and foster home placement. Only sexual abuse

independently predicted diagnosis of BPD ($p<.05$). Links and van Reekum observe that these results establish a link between child sexual abuse and the development of BPD.

Landecker (1992) argues that the statistical evidence supporting the etiologic role of childhood trauma, particularly sexual abuse, in the development of borderline personality disorder is overwhelming. She argues further that object relations theory is inadequate in its explanation of BPD. She recommends instead a model where BPD is seen as related to post traumatic stress disorder (PTSD) and is in fact best understood as a characterological reaction to traumatic events.

She makes this conclusion based upon her comparison of BPD and PTSD symptoms. For example, she argues that self injurious behavior, a diagnostic criteria for BPD though not for PTSD, is consistent with a diagnosis of PTSD when the behavior is interpreted as attempts to avoid memories of traumatic events and their associated emotions. Moreover, dissociation, which again is a diagnostic criteria for BPD though not for PTSD, is nevertheless frequently discussed in the literature describing PTSD according to Landecker (1992). Therefore, Landecker argues, BPD and PTSD are similar syndromes resulting from similar traumatic events.

Because of this, Landecker (1992) suggests that whether victims of child sexual abuse develop PTSD or BPD may actually depend upon the severity of abuse perpetrated against the victims. From this point of view, more severe forms of abuse would be more likely to cause reactions in victims which would impact upon the personality and character of those victims, resulting in the development of BPD. Less traumatic forms of abuse, if there can be abuse that is less traumatic, would result in a PTSD type reaction with less impact upon basic personality functioning.

Therefore, based upon the research and theoretical findings described above, an important explanation for the development of BPD is possible. According to this view, BPD is in fact a characterologic variation of a post traumatic reaction to sexual abuse and other trauma. The experience of people diagnosed with BPD seems to be particularly

impacted by a history of sexual abuse, with those who were sexually abused as children over represented in psychiatric hospitals and in treatment for self injurious behaviors. This finding by many researchers (Landecker, 1992, Links & van Reekum, 1993, Lobel, 1992, Wagner & Linehan, 1993, Weaver & Clum, 1993) suggests that the symptoms of BPD are as likely the result of adaptations made by victims of abuse as they are a result of problems encountered during the separation/individuation stage of early childhood development.

Physiological/inheritance perspective.

In addition to research addressing the hypothesis that traumatic family environments contribute to the etiology of BPD, other studies consider the familial association of BPD and potential physiological and genetic contributions. Evidence to date is mixed on the impact that biological and genetic factors have on the etiology of BPD. Studies reviewed here describe the occurrence of BPD in the families of people diagnosed with BPD (family prevalence), results from a twin study, and neurological aspects of BPD.

Two studies support the hypothesis that BPD is more common in the families of people diagnosed with BPD than in the families of people not disgnosed with the disorder. The first, of people hospitalized in an acute care psychiatric setting, diagnosed the family members of 69 hospitalized people who were themselves diagnosed with BPD (Links, Steiner, & Huxley, 1988). To diagnose their family members, 114 of them were interviewed directly by researchers and 206 were diagnosed based upon the reports of informants, most frequently the hospitalized subject. Results showed that 10.9 percent of family members met modified diagnostic criteria for BPD at the time of the study. Researchers conclude that there is a familial association of BPD.

Unfortunately, Links, et al. (1988) did not include a comparison group in their study design. Therefore, the conclusion that a large number of relatives of people diagnosed with BPD are at a statistical risk for the diagnosis is tentative given that it is

impossible with this design to determine if this relationship only exists in families where at least one member is diagnosed with BPD. Moreover, they determined that in order to avoid false negatives in the diagnosis of family members by interview with informants, a less stringent diagnostic standard was used to establish the BPD diagnosis. The validity of the BPD diagnosis given to relatives based on reduced diagnostic criteria raises further questions and objections to the validity and reliability of the result.

Zanarini, Gunderson, Marino, Schwartz, and Frankenburg (1988) completed a similar study which included a comparison group and used a standardized questionnaire to establish the diagnosis of BPD among the family members of a sample of people diagnosed with BPD. Interviewing 103 patients of a mental health clinic who were diagnosed with either BPD or antisocial personality disorder, 488 members of their families were diagnosed. Results indicated that18.3 percent of the relatives of people diagnosed with BPD were diagnosed with BPD. In comparison, only 2.9 percent of the relatives of people diagnosed with antisocial personality disorder were diagnosed with BPD ($p<.001$). Researchers did not discuss the validity of diagnosing relatives of people diagnosed with BPD based upon interviews of people diagnosed BPD.

These results, that family members of people diagnosed with BPD are at greater risk of being diagnosed with BPD, however, do not establish a genetic or physiological explanation for BPD. Traumatic childhoods and damaged object relations could easily account for this relationship. Therefore other types of studies will be reviewed.

A twin study completed on a Norwegian population did not support a genetic explanation of BPD (Torgerson, 1984). Three monozygotic and 7 dizygotic sets of twins, where at least one of each of the pairs was diagnosed with BPD, were assessed for the presence of BPD. Among this admittedly small group, only 2 additional people who were both part of dizygotic twin sets were diagnosed with BPD. Researchers observed that while this study did not support a genetic explanation of BPD, generalization of results is not possible given the extremely small sample size.

Other researchers exploring the relationship of biology to BPD studied neuropsychiatric factors in the etiology of BPD (Cornelius, et al. 1989). Researchers compared people diagnosed with BPD to those diagnosed with either major depression or schizophrenia. Their developmental histories, EEG patterns, and family history of neurological disorders were compared to determine if patterns of disabilities and deficits could distinguish between the groups. In addition, the group diagnosed with BPD completed neuropsychological testing. Researchers found that there were no significant differences between diagnostic groups on EEG measures and family histories of neurological disorders. People diagnosed with BPD did experience "complications of pregnancy" at a significantly greater rate than both comparison groups ($p<.025$), and were more likely to engage in head banging as an infant ($p<.05$). Neuropsychological testing of the group diagnosed with BPD showed no pattern of abnormalities in memory scores, language, or motor abilities. Researchers concluded that overall, this study did not support a physiological contribution to the etiology of BPD.

Contrary to the results of Cornelius, et al. (1989), a review of over 60 studies by van Reekum (1993) suggested that there is a relationship between physiology and BPD. van Reekum critiqued Cornelius et al, stating that their choice of neuropsychological testing which focused on memory, language, and motor functioning did not address the areas of deficits which would be common to people diagnosed with BPD. Instead, deficits in the areas of impulsivity and cognitive inflexibility have been supported by previous research. In addition, prior research supports a relationship between brain dysfunction and BPD. Brain dysfunction could result from physical trauma to the head, the diagnosis of attention deficit hyperactivity disorder, learning disorders, or epilepsy. van Reekum refers to these results as "preliminary" (van Reekum, 1993 p. S8), but positive enough to warrant further study.

Evidence is mixed regarding the contributions of inheritance and physiology to the etiology of BPD. Results from studies of the familial association of BPD may be

strong enough to raise questions about the inheritability of BPD, although these results are based upon methodologies which are subject to questions regarding validity (Links, Steiner, & Huxley, 1988, Zanarini, Gunderson, Marino, Schwartz & Frankenburg, 1988). The twin study reviewed here did not support a genetic contribution to the etiology of BPD (Torgerson, 1984). Finally, neuropsychological data are mixed and preliminary, suggesting that further research needs to be conducted in this area to rule in or rule out this contribution to BPD's etiology (Cornelius, et al. 1989, van Reekum, 1993). Therefore, while these research results at the present time are interesting, they do not approximate the strength of data collected on childhood trauma or the theoretical formulations of object relations theory for explaining the development of BPD.

Summary of etiology.

Of the three theories described, only the childhood trauma perspective clearly contributes to the present study. Unfortunately, the object relations theory is untested, is difficult to measure, and therefore unlikely to contribute to the present study. Likewise, the physiological/inheritance perspective, while finding that borderline personality disorder is frequently distributed in families of people diagnosed with BPD and that the evidence for a physiological foundation of BPD warrants further study, the perspective does not communicate information regarding variables related to the severity of BPD. Therefore, childhood trauma, particularly sexual abuse history, will be considered for this study.

Borderline Personality Disorder Symptoms

The contributions that specific symptoms make to the severity of borderline personality disorder for people who are diagnosed with the disorder is noteworthy. Pursuing this, the author observed that four symptoms in particular have received considerable attention in the literature. These are affective problems, suicide, self injurious behaviors, and substance abuse related disorders. These will be described below.

Affective problems.

Studies of clinical populations consistently observe a strong association between BPD and depressive disorders (Zanarini, Gunderson, Frankenburg & Chauncey, 1990). Zanarini, et al. (1990) studied a combined population of inpatient and outpatient people diagnosed with BPD. Research data on affective problems among the sample of 120 people showed that they overwhelmingly experienced major depression (95.8%), chronic anger (99.2%), chronic anxiety (95.8%), and chronic loneliness (100%). This result confirms that of other studies which find that affective problems are experienced frequently by people diagnosed with BPD (Benjamin, Silk, Lohr & Westen, 1989, Gardner, Leibenluft, O'Leary& Cowdry, 1991, Westen, Moses, Silk, Lohr, Cohen, Segal, 1992, Zanarini, Gunderson & Frankenburg, 1989).

The strong association between affective problems, particularly the diagnosis of major depression, and BPD indicates that their may be a relationship between these conditions. Gunderson and Phillips (1991) reviewed the current state of research to study this question. They concluded that research findings are supportive of the hypothesis that BPD and depression are etiologically unrelated.

They developed this conclusion based upon research findings in several areas of research. First, the authors speculate that the high comorbidity of BPD and major depression may be due in part to an overlap of symptoms articulated in the DSM-III-R (the diagnostic standard at the time). Second, research has shown that people diagnosed with BPD and those diagnosed with depression experience affective problems differently. While the experience of major depression tends more towards self criticism, feelings of defeat, and withdrawal, people diagnosed with BPD feel more dependent, lonely, rejected, and self destructive. Third, family prevalence studies which demonstrate a strong familial association of BPD and major depression in the families of people diagnosed with BPD show that the presence of major depression in family members is statistically related to a concurrent diagnosis of major depression rather than to the

diagnosis of BPD itself. Fourth, research into biological markers, such as neurotransmitter deficiencies, do not support a biological association between the disorders. Research studies further find that BPD is related more strongly to impulse dysregulation than to affective dysregulation. Finally, while the etiology of BPD seems to be most heavily related to early family environments, the etiology of depressive illness' are related to physiological factors. Based upon these findings, Gunderson and Phillips concluded that BPD and depressive illness' are most likely etiologically unrelated.

Commenting upon Gunderson and Phillips' analysis, Heritch (1992) asserts that their conclusion is inaccurate. He states that accepting multiple causality of depression, the struggles imposed upon people diagnosed with BPD must relate to the possible development of depression. Secondly, Heritch is unconvinced that overlap between BPD diagnostic criteria and that of depressive illness' can account for the very high comorbidity typically found between diagnosis of BPD and depression. He therefore concludes that a non-specific though causal relationship between BPD and depressive illness' is most likely.

The research field is therefore unsettled regarding the relationship between BPD and depression. As this relationship is clarified, its impact upon the problems encountered by people diagnosed with BPD, which is the subject of the present study, will be better understood. What is clearly understood, however, is that depression and BPD are strongly associated with one another (Benjamin, Silk, Lohr & Westen, 1989, Gardner, Leibenluft, O'Leary& Cowdry, 1991, Westen, Moses, Silk, Lohr, Cohen, Segal, 1992, Zanarini, Gunderson & Frankenburg, 1989). .

Suicide.

Suicide is a significant risk faced by many people diagnosed with BPD. Reviewing long term outcome studies, Paris (1993B) found that approximately 10 percent of those diagnosed with BPD and discharged from long term psychiatric hospitalization had committed suicide by time of follow-up. For most studies, average

follow-up time was 15 years after discharge. This high rate of suicide is of concern for those who experience BPD and for those who provide services for them.

Attempting to identify factors that predict eventual suicide, Paris, Nowlis and Brown (1988) measured severity of BPD symptoms, affective disorders, and demographics, in a population of people diagnosed with BPD who had committed suicide at follow-up. They found that the only significant predictors of completed suicide were previous suicide attempts ($p=.002$) and higher education ($p=.003$).

Dingman and McGlashan (1988), also studying discharged psychiatric hospital patients, discovered that among patients originally admitted with "serious suicide intentions," those who were diagnosed with BPD were at less risk of having killed themselves by the time of follow-up than were those who were not diagnosed with BPD. Those admitted for hospitalization with "serious suicide intent" were chosen for study because literature reviewed by the researchers found that this variable was the prominent predictor of eventual completed suicide. Dingman and McGlashan found that in their sample of discharged psychiatric hospital patients, those originally admitted to the hospital with BPD and serious suicide intent had a suicide rate of 6 percent at follow-up, compared with a 22 percent suicide rate among the general population of patients admitted with serious suicide intent. Comparison data indicated that histories of impulsivity, self injurious behaviors, and manipulative suicidal threats and attempts characteristic of BPD reduced the risk of eventual suicide, while the presence of identity disturbance and major depression increased risk. Additionally, women were at reduced risk for completed suicide when compared to men.

Although suicide rates among people diagnosed with BPD who exhibit serious suicide intentions complete suicide at lower rates than others experiencing serious suicide intentions, risk of suicide remains an important problem among people diagnosed with BPD. Its presence as a specific diagnostic criteria for BPD indicates that, given the results of Paris, Nowlis and Brown (1989), suicide rates among this population will be

elevated. Indeed, while noting the differences in rates between people diagnosed with BPD and discharged from hospital care compared with others similarly discharged, Dingman and McGlashan (1988) state that "nevertheless, we found that suicide is more prevalent in patients with borderline personality disorder than in the general population, and therefore one cannot be inattentive to the potential for suicide even in this group of patients" (p. 299).

Self injury.

Three studies highlight different dimensions of self injurious behavior among people diagnosed with BPD. These dimensions, the ability to sense pain during self injurious behaviors, the relationship between cognitive impairment and the presence of self injurious behavior, and the impact of sexual abuse history on the lethality of self injurious behavior, all contribute to the presence and quality of self injurious behavior.

The ability to feel pain during episodes of self injurious behavior discriminates subgroups of people diagnosed with BPD. Russ, Shearin, Clarkin, Harrison and Hull (1993) studied 27 inpatient women diagnosed with BPD who reported at least three episodes during their lifetimes of self injurious behavior without suicidal intent or lethality. Fourteen patients reported feeling pain during the self injurious behavior, while the remaining 13 reported feeling no pain during these times. Three variables were statistically significant ($p<0.0001$) in distinguishing these two groups. First, on the sensation seeking subscale of the Barret Impulsiveness scale, the no pain group scored higher than the pain group. Second, the no pain group reported more suicide attempts than the pain group. Third, the no pain group reported more dissociative experiences than the pain group. In addition, there were non-significant trends in the no pain group to experience more anxiety, depression, impulsiveness, trauma symptoms, and sexual abuse, than the pain group. The results of this study suggest that the inability to sense pain during episodes of self injurious behavior is an indicator of physical risk to people diagnosed with BPD.

Testing two prevailing theories of self injury, cognitive impairment and overwhelming depression, Burgess (1991) found that cognitive impairment is an important dimension of the assessment of self injurious behavior among people diagnosed with BPD. Researchers Tested 27 people diagnosed with BPD, 20 diagnosed with schizophrenia, and 17 diagnosed with major depression. Burgess found that self injury was significantly more prevalent in the group diagnosed BPD than either of the other two groups. Depression was not correlated to self injurious behavior in any of the three groups. Finally, in the group diagnosed with BPD, self injurious behavior was significantly correlated to neurocognitive deficits in attention and memory. This study provided evidence in favor of the neurocognitive deficit theory of self injurious behavior and suggests a possible neurological basis for the presence of self injurious behaviors.

History of sexual abuse has also been shown to be a contributing factor for self injury by Wagner and Linehan(1994). Seventy-six percent of their sample of 37 women diagnosed with BPD who reported at least two acts of self injury during the past five years reported having been sexually abused as a child. Those who reported sexual abuse reported higher lethality of self injurious behavior and tended toward higher suicidal intentions. Also, women reporting no history of sexual abuse scored significantly higher on measures of "instrumental intent," where self injurious behavior is intended to influence others. Neither severity of abuse, current depression, or impulsivity distinguished the groups. These results suggest that history of childhood sexual abuse increases the physical risks among those people diagnosed BPD.

More than the research available on other symptoms, the results of the review of self injurious behaviors provides a bridge between the symptoms of BPD and etiological factors. Research results demonstrate that the presence of self injurious behaviors are related to neurocognitive deficits and to history of sexual abuse (Burgess, 1991, Russ, Shearin, Clarkin, Harrison & Hull, 1993), both of which are potential etiological factors for the development of BPD (Landecker, 1992, Links & van Reekum, 1993, Lobel, 1992,

van Reekum, 1993, Wagner & Linehan, 1993, Weaver & Clum, 1993). Moreover, the severity of self injurious behaviors may be predicted by a history of childhood sexual abuse (Russ, et al. 1993).

Substance abuse and dependence.

Frequently, research studies find that people diagnosed with BPD are also diagnosed with a substance abuse related disorder. In the NIMH community sample reported previously (Swartz, Blazer, George & Winfield, 1990), 57.1 percent of people diagnosed with BPD experienced problems with alcohol use some time during their lives, while only 17.6 percent of the general population experienced these ($p<.001$) (Swartz, et al. 1990). Clinical samples of people diagnosed with BPD show even higher rates of substance use problems. Two studies (Zanarini, Gunderson & Frankenburg, 1989, Zanarini, Gunderson, Frankenburg & Chauncey, 1990) found that 75 - 85 percent of BPD inpatient and outpatient clinical samples were diagnosed with either substance abuse or substance dependence disorders.

Dulit, Fyer, Haas, Sullivan, and Frances (1990) also found a strong presence of substance abuse and dependence in their sample of psychiatric hospitalized people diagnosed with BPD. Of 137 people with this diagnosis, 92 (67 percent) were diagnosed with either substance abuse or substance dependence. These results are consistent with previous research (Zanarini, Gunderson & Frankenburg, 1989, Zanarini, Gunderson, Frankenburg & Chauncey, 1990).

Dulit, et al. (1990) continued their analysis by rediagnosing this sample excluding the substance abuse criteria from diagnoses. Excluding this criterion, 32 people in this sample were no longer diagnosed with BPD. Compared to people who maintained the BPD diagnosis, those who were no longer diagnosed with BPD were less likely to be impulsive, less likely to have a disturbed identity, and less likely to feel chronically empty ($p<.02$). This group, meeting only the minimal standard of criteria for BPD, would appear to be a less seriously disordered group than those who continued to be

diagnosed with BPD. Caution should be exercised in interpreting this result however, since none of the sample is reported to have actually been cured of substance abuse related problem. It is not clear from this analysis if people's social functioning for example, which is impaired by BPD, would be markedly improved in this group if they did discontinue abusing substances.

These results suggest that substance abuse problems are common among people diagnosed with BPD (Swartz, et al. 1990, Zanarini, et al. 1989, Zanarini, et al. 1990), and that further analysis identifies that people whose diagnosis of BPD depends upon substance abuse are less impulsive than those who exceed the minimum criteria for the diagnosis (Dulit, et al. 1990).

Summary of borderline personality disorder symptoms.

Literature describing each symptom of borderline personality disorder which was described above contributes specific findings which may be useful in the present study of the relationship between service utilization and psychiatric hospitalizations among people diagnosed with BPD. The presence of affective disorders is strong in this population, often indicated by a concurrent diagnosis of a depressive disorder (Benjamin, Silk, Lohr & Westen, 1989, Gardner, Leibenluft, O'Leary& Cowdry, 1991, Westen, Moses, Silk, Lohr, Cohen, Segal, 1992, Zanarini, Gunderson & Frankenburg, 1989). This population is at a high risk for suicide, supporting its inclusion as a study variable (Paris, Nowlis and Brown 1988). Self injurious behavior is distinguished by its apparent association with the experience of childhood sexual abuse (Russ, Shearin, Clarkin, Harrison & Hull, 1993). Also, among this population, a concurrent diagnosis of substance abuse related disorders is frequent (Zanarini, Gunderson & Frankenburg, 1989, Zanarini, Gunderson, Frankenburg & Chauncey, 1990).

Outcomes for People Diagnosed with Borderline Personality Disorder

In addition to etiological factors and the symptoms of borderline personality disorder, outcome studies comprise a third body of research that is important for its

potential contributions to a study of service utilization and psychiatric hospitalization. These studies, describing how BPD changes over time, identify the potential impact that age, as well as other treatment and non-treatment variables, have on the severity of BPD at any given time. To describe these associations, three long term outcome studies are reviewed, as well as several studies describing factors associated with outcomes for people diagnosed with borderline personality disorder.

Long term outcome studies.

The problems faced by people diagnosed with BPD, such as substance dependence, self injurious and suicidal behaviors, and affective instability, are theorized to have their origins in early childhood experiences and physiological factors. Whatever their cause, these behaviors are seen as establishing a personality disorder which by its definition is an "enduring pattern[s] of perceiving, relating to, and thinking about the environment and oneself that [is] exhibited in a wide range of social and personal contexts" (APA, p. 630). To test if symptoms of BPD maintain themselves over time, several major long term studies of people diagnosed with BPD and discharged from psychiatric hospitalization were completed.

These studies (McGlashan, 1986, Paris Brown & Nowlis, 1987, Stone, Stone & Hurt, 1987) interviewed people after they were discharged from the study hospitals. The average length of follow-up ranged from 15 to 16 years. Study participants received an initial diagnosis of BPD through retrospective reviews of hospital charts using procedures described below. As part of data collection procedures, global functioning assessment instruments were administered to each sample at follow-up. Two studies (McGlashan, 1986, Paris, et al.1987) used the Health Sickness Rating Scale, a 100 point scale where a score of 100 represents the "best" functioning individuals. Their samples scored an average of 64 on this measure. This score falls within the "generally functioning well but have focalized problem or more generalized lack of effectiveness without specific symptoms" (Paris et al 29, p. 533). The third study used the Global Assessment Scale

(Stone, et al. 1987). The Global Assessment Scale is a 100 point scale whose scores are distributed with the following meanings:

1 - 30 varying degrees of incapacity
31 - 50 marginal function
51 - 60 fair adjustment
61 - 70 good
71 - 100 recovered or well (Stone, et al. 1987)

The average participant in their sample scored 66.7, representing that the average study participant is functioning in the upper end of "good" on this measure. (Stone et al. 1987) These similar results indicate that participants of the 3 studies were functioning relatively well without acute problems at the follow-up period.

The study completed by Stone, et al. (1987) was completed at the General Clinical Service of the New York State Psychiatric Institute. Patients of this residential treatment setting engage in a psychoanalytically oriented treatment setting which includes three weekly sessions of psychotherapy per week. Average length of hospitalization was 12.7 months during the study years 1963 - 1976. Average follow-up time after discharge was 16 years. Hospital charts of people who were patients during this time were reviewed and diagnosed with BPD according to DSM-III criteria using a method developed by McGlashan (1984). Research subjects were located by phone by the senior researcher who knew most of the former patients from their time in the hospital. By this method, 229 people who were diagnosed with BPD were contacted and interviewed.

In addition to the global assessment score, Stone, et al. (1987) measured other variables reflecting outcome. In their sample, 7.6 percent of those diagnosed BPD through the retrospective chart review had committed suicide. One suicide occurred during hospitalization, 16 during the first five years after hospital discharge, and 2 after 5 years of discharge, suggesting that suicide risk in this sample was reduced over time. Most participants reported having no re-hospitalizations after discharge (75 percent), and 14 percent reported having been hospitalized only one time. Finally, 28 percent of their

sample spent 100 percent of their time post discharge in employment, 38 percent reported having worked during approximately 75 percent of their time since discharge. Stone, et al. found that among people discharged from hospital care with a diagnosis of BPD, suicide risk decreases over time, and that most people are able to avoid re-hospitalizations and are able to participate in employment. These results are consistent with global assessment findings that at the time of follow-up, average people in this sample are functioning relatively well.

Stone et al (1987) cautions, however, that this sample was skewed at hospital admission by three factors in particular. Compared with other samples, this sample is characterized by higher education, higher IQ, and higher socioeconomic status. Therefore, care must be taken when attempting to generalize these findings.

The second study of long term outcome was completed by Paris, Brown, and Nowlis (1987). It reports on the post discharge follow-up of patients of the psychiatry department of Jewish general Hospital in Montreal. These people, patients of the hospital from 1958 - 1978 were contacted an average of 15 years after they were discharged from the hospital. Retrospective diagnosis of BPD was made from hospital records utilizing the Diagnostic Interview for Borderlines, (DIB) retrospective version. The DIB is a semistructured interview used in research settings for diagnosis of BPD (Gunderson, Kolb, & Austin, 1981). Out of 322 people diagnosed with BPD from their hospital records, 100 were available for interview (179 were not located and 43 refused to participate). Interviews were conducted in person (n=31) and by telephone (n=69). The average age of study participants was 41 years old. Interviews lasted for 90 - 120 minutes.

Like Stone et al (1987), the results of this research by Paris, Brown, and Nowlis (1987) are consistent with findings that this population is generally functioning well at follow-up with a few ongoing problems. Most striking is the result that only 25 percent of those interviewed scored high enough on the DIB administered during the interview to

continue with a diagnosis of BPD. All major symptoms of BPD which are measured by specific scales on the DIB were significantly reduced (p ranged from .01 - .001). Impulsivity was reduced so much that it was almost non-existent among the follow-up study sample. In spite of this finding, however, a separate measure of social interaction score fell in the range described as "limited leisure time and transient social contact." Researchers suggested that their sample had not increased their social abilities but had instead withdrawn from social interaction, an interpretation which was supported by the qualitative observations made by the interviewers. These results indicate, however, that recovery from BPD symptoms is possible at best, and that for most people the symptoms become less acute over time.

Paris, et al. (1987) also found that 8.5 percent of the former patients diagnosed with BPD had committed suicide before the follow-up interval. Also, participants had been rehospitalized an average of 1.32 times following discharge from Jewish General Hospital, a higher rate than documented by Stone, et al. (1987). Lastly, on measures of work, participants averaged a score of 3.8, which is interpreted as "frequent job changes without unemployment" (Paris, et al. 1987). Researchers note that generalizability of their findings are aided by the broad range of socioeconomic status' which are represented in their sample and in finding that outcomes are independent of educational status. Therefore, their study indicates that over time people diagnosed with BPD can expect to function generally well with a few continuing problems, be rehospitalized infrequently, and have a continuous, although unstable, work history. In addition, it is possible that some symptoms of BPD could disappear.

The final outcome study to be reviewed was conducted at Chestnut Lodge, a private psychiatric hospital in Rockville, Maryland (McGlashan, 1984). Most people admitted to this facility have experienced previous treatment failure, which for those diagnosed with BPD typically meant failed outpatient treatment. Diagnosis of BPD was made retrospectively by chart review. Chart reviews reported the existence of 49

diagnostic signs and symptoms. Among those signs and symptoms were those which would support a diagnosis of BPD according to DSM-III criteria. The average length of hospitalization for people diagnosed with BPD was 2 years. People who were discharged during the years 1950 - 1975 were contacted with a letter and initial survey by mail. When surveys were returned, former patients were contacted to seek their consent for an interview, which was conducted at a later date either in person or by phone.

Researchers conducted two analysis of data gathered during interviews (McGlashan, 1986). The first involved descriptive statistics of the entire sample. Like previously described studies, participants in this sample averaged only 1 - 2 psychiatric hospitalizations following discharge from Chestnut Lodge. Also like other long term outcome samples, most people (68 percent) were employed during the majority of the post discharge period in jobs which entailed increasing complexity. Moreover, on a clinical global functioning score, 78 percent of participants scored in the "moderate" or "good" range (this measure was constructed by the researchers and is distinct from the Health Sickness Rating Scale previously reported). Continued psychiatric treatment was common, however, evidenced by the 46 percent of participants still engaged in some form of outpatient psychiatric treatment. Moreover, on a scale of "time symptomatic since discharge," where 4 represents "no time" and 0 represents "continuously," this sample scored 1.9, leading researchers to conclude that symptoms of BPD are relatively stable over time. The results of this analysis are therefore mixed, with some measures demonstrating good functioning, and others indicating continued problems for participants in their study.

McGlashan (1986) subjected these results to further analysis by dividing the group into cohorts based upon length of time since discharge. Dividing the group into five year intervals yields the following data:

Table 1.
Age and Global Functioning by Time Since Discharge.

	Time since discharge				
	0-4	5-9	10-14	15-19	20+
Mean age	29	35	43	47	57
global functioning*	1.8	2.0	2.8	2.9	2.4

*Note:0=incapacitated, 1=marginal, 2=moderate, 3=good, 4=recovered

The pattern of the data in Table 1 suggests that functioning levels increase over time with a slight decline among the oldest cohort. This pattern was replicated by each of the other variables subject to this analysis (work, time symptomatic, and Health Sickness Rating Scale). Acknowledging the possibility of cohort effects, there appears to be a trend for people diagnosed with BPD to experience improved functioning over time.

Each of these long term outcome studies base their findings upon diagnoses made from hospital records which were sometimes over 30 years old. Hospital admission standards and record keeping are both variables which change over time depending upon the knowledge base of professions. It is quite possible, therefore, that information in the hospital charts was documented with language and terms which would be misinterpreted by the modern screening instruments which were used to make the BPD diagnosis. If this was possible, than the validity of diagnoses by this method may be weakened. This question is especially pertinent to the results reported by Paris, Brown, and Nowlis (1987), that 75 percent of their sample had recovered from BPD by the time of follow-up. It may be that the screening tool used to diagnose BPD in their sample identified a large number of false positives, who at follow-up should not generally be diagnosed with BPD. Also, McGlashan (1986) found in his sample that while measures of people's global functioning increased over time, their levels of symptoms were stable over time. Given that result, as well as the finding that personality disorders are "enduring patterns" (APA, 1994, p. 630), it is likely that retrospective diagnosis through chart reviews reduces validity.

As a group, however, these studies more consistently support an evolution of BPD symptoms though adulthood which is characterized by gradual improvements in functioning with continuing problems experienced throughout the course of adulthood. Together, these studies find that global assessment measures are consistent in reporting a lack of acute problems at the follow-up period (McGlashan, 1986, Paris Brown & Nowlis, 1987, Stone, Stone & Hurt, 1987). While some symptoms of BPD, including the risk of suicide and impulsivity, are reduced over time (Paris, et al. 1987, Stone, et al. 1987), others are more likely to continue, often times requiring continued treatment (McGlashan, 1986).

Factors impacting outcome.

The results of outcome studies, suggesting that people diagnosed with borderline personality disorder will experience moderating symptoms over time, are hopeful for those who have this disorder. Many studies, some of which are described here, have analyzed the factors which lead to positive and negative outcomes for this population of people.

Studying a year long cognitive behavioral group model for treatment of BPD symptoms, Linehan, Armstrong, Suarez, Allmon and Heard (1991) compared the group model they developed against a control group of people diagnosed with BPD who continued in individual psychotherapy "as usual." After one year, they compared the people in treatment groups with people who remained in individual psychotherapy along three outcome variables; (1) incidence of self injurious behavior (2) maintenance in therapy (no changes in therapy programs) (3) and incidence of psychiatric hospitalization. The authors found that on each measure, those who participated in the cognitive behavioral program performed better than those who remained only in traditional individual outpatient therapy. This study seems to suggest that the model used in treatment may make a difference in the outcome for people diagnosed with BPD.

Factors impacting the treatment response of hospitalized people diagnosed with BPD were studied by Hull, Clarkin & Kakuma (1993). Reporting on a sample of 40 women hospitalized for at least 25 weeks, researchers compared weekly assessments of patients' identity/interpersonal problems, affective problems, and impulsivity, to weekly assessments of their global functioning. Measurements were taken from standardized semistructured interview instruments. Researchers found that for this sample, all of whom participated in the same treatment program, only the level of people's identity/interpersonal problems predicted final outcome (overall global functioning score). The severity of affective problems, while predicting periods of low global functioning, did not have an overall impact upon treatment. The measure of impulsivity had no relationship with global functioning measures (Hull, et al. 1993).

Using samples derived from the long term outcome study reported previously (Paris, Nowlis & Brown, 1987), two other statistical analyses were conducted to test the impact of developmental and psychological risk factors on the long term outcome for people diagnosed with BPD (Paris, Nowlis & Brown, 1988, Paris, Zweig-Frank & Guzder, 1993). The following variables were analyzed:

1. childhood sexual and physical abuse
2. separation from parents or loss of parents
3. abnormal parental bonding
4. "mother problems" and "father problems." (scales which include chronic illness, mental illness, alcoholism, marital conflict, verbal and physical abuse)

Problems experienced by the mothers of people in the samples significantly distinguished people diagnosed BPD with a comparison group of people hospitalized but not diagnosed with BPD ($p=.02$) (Paris, et al. 1988). Also, people diagnosed with BPD and who committed suicide were less likely to experience "mother problems," ($p=.0002$) early separation from parents ($p=.0001$), and early loss of parent ($p=.0001$), than were people who were diagnosed with BPD and had not committed suicide by the follow-up period. Researchers observe that education and mother problems/early separation are inversely

related to each other, and that education level was positively related to suicide in previous studies(Paris, et al. 1988) People who were diagnosed with BPD and had a history of childhood sexual abuse were less likely to have recovered from BPD than those diagnosed with BPD during their hospitalization but who weren't sexually abused as children ($p<.10$, trend level) (Paris, et al. 1993). The remaining variables did not distinguish between experimental and comparison groups. With the exception, then, of a subgroup of people who committed suicide, important variables affecting upon positive outcome among people diagnosed with BPD are fewer "mother problems" and absence of childhood sexual abuse.

Research on factors impacting long term outcomes for people diagnosed with BPD suggests that type of treatment can make a difference for people diagnosed with BPD (Linehan, et al. 1991). Furthermore, it would seem that some symptoms of BPD, particularly identity and interpersonal problems, have a significantly stronger negative relationship to outcome than do other symptoms (Hull, et al. 1993). Finally, two variables implicated explicitly by object relations theory and the post traumatic etiological perspective, problems experienced by mothers of people diagnosed with BPD and history of sexual abuse, are related to poor outcome among people diagnosed with BPD (Paris, et al. 1988, Paris, et al. 1993). Other variables, with the exception of education among those who committed suicide, were not significant predictors of long term outcome.

Summary of outcome studies.

These studies make varied contributions to the present study. As predicted by the childhood trauma etiological perspective, the presence of childhood sexual abuse may be predictive of poor outcome among people diagnosed with borderline personality disorder (Paris, et al. 1993). Problems experienced by the mothers of people diagnosed with BPD experienced during their childhoods also seems to predict the severity of BPD (Paris, et al. 1988). Finally, identity and interpersonal problems have been related to poor response

to treatment (Hull, et al. 1993). Each of these could increase the need for psychiatric hospitalization among people diagnosed with the disorder.

Two other results reported above predict positive outcome for people diagnosed with borderline personality disorder. Age is a variable shown to affect outcome (McGlashan 1986) and the implementation of some treatment models have had a demonstrated impact upon some people (Linehan, et al. 1991). These, therefore should be included, if possible in the study of service utilization and psychiatric hospitalization.

Findings of the Borderline Personality Disorder Literature Review

This review gives a broad description of borderline personality disorder, whose essential feature is "a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity" (p. 650 APA). Those people diagnosed with borderline personality disorder are typically more egocentric than others and have a malevolent view of the world, including its helpers (Arnow & Harrison, 1991, Baker, et al. 1992, Westen, et al. 1990). There is a strong likelihood that people diagnosed with BPD experience depressive disorders (Benjamin, et al. 1989, Gardner, et al.1991, Westen, et al.1992, Zanarini, et al.1989), engage in suicidal and self injurious behaviors (Burgess, 1991, Russ, et al. 1993), and often have substance abuse related problems (Zanarini, et al.1989, Zanarini, et al.1990). They frequently were sexually abused as children (Landecker, 1992, Links & van Reekum, 1993, Lobel, 1992, Wagner & Linehan, 1993, Weaver & Clum, 1993). Research into the long term course of borderline personality disorder suggests that the disorder is characterized by decreasing symptoms over time with continuous outpatient psychiatric treatment required by many (McGlashan, 1986, Paris, et al.1987, Stone, et al.1987).

Overall, key variables identified for inclusion into a study of the need for psychiatric hospitalization include history of childhood sexual abuse, concurrent diagnosis of depressive disorders and substance abuse related disorders, problems experienced by mothers of people diagnosed with borderline personaltiy disorder, identity

and interpersonal problems, suicidal thoughts and behaviors, self injurious behaviors, age, and mental health treatment.

Research Question

Residents of Rice County diagnosed with borderline personality disorder are among those eligible for mental health services provided by Rice County Social Service's (RCSS) mental health department. This public social services agency serves adults who are judged by a mental health professional as Seriously and Persistently Mentally Ill . An applicant is eligible for services when he or she:

1. has a diagnosis of schizophrenia, bipolar disorder, major depression, or borderline personality disorder;
2. indicates a significant impairment in functioning
3. has a written opinion from a mental health professional stating that the adult is reasonably likely to have future episodes requiring inpatient or residential treatment.

People who meet these criteria live with the risk of acute care psychiatric hospitalizations due to the intensity of their mental health problems. RCSS attempts to support eligible clients so that acute hospital care becomes less likely. The present study measures the relationship between service delivery and psychiatric hospitalizations to determine if service utilization does reduce the need for psychiatric hospitalization.

All clients meeting eligibility criteria are offered case management services. Case managers are brokers of services. Utilizing the expertise of the mental health professionals who work with their clients and their own knowledge of community resources, case managers assist clients in locating resources which clients are unable to access on their own. These resources include psychiatric and psychological treatment, day treatment, financial assistance, and vocational assistance. Those resources are sought which enable clients to participate in community life as independently as possible.

Community support program (CSP) workers are assigned to those clients who require community based services above those available from case managers. In addition to case management duties, CSP workers assist their clients to develop skills for independent living, including the management of a household, money, time, and

medications. Like case managers, CSP workers seek to enable clients to participate in community life as independently as possible.

Both case managers and CSP workers help clients who are experiencing mental health crisis. Often these workers arrange psychological screenings for those clients who are suicidal to determine if acute care hospitalization is needed. In addition, clients in crisis often receive frequent visits from county workers, and have therapy appointments arranged by them. These two services provided by RCSS is intended to play a significant role in the reduction of inpatient psychiatric treatment required by this population.

Research suggests that people who are diagnosed with BPD have a significantly higher incidence of psychiatric hospitalization than the general population (Swartz, et al. 1990). People who experience extreme difficulties in their interpersonal lives, experience psychotic episodes, are depressed, injure themselves purposefully, and attempt suicide, are at risk for crises which would lead to psychiatric hospitalizations. What is unknown is how community services arranged by clients and their case managers or CSP workers are related to reducing the incidence of psychiatric hospitalization.

This research was conducted to discover how service utilization by people diagnosed with borderline personality disorder is related to the incidents of psychiatric hospitalization among clients of RCSS.

Methodology

Sample Selection

The sample for this study was drawn from caseloads of adult recipients of case management and community support services provided by the mental health department of Rice County Social Services during 1994. Everyone selected for inclusion in the study sample met the criteria as seriously and persistently mentally ill as described earlier. Through these two services, Rice County serves 132 adults who meet criteria for seriously and persistently mentally ill. Among them, 12 (9 percent) had a diagnosis of borderline personality disorder included in their diagnostic assessments.

Ages of the people in the sample range from 18 years to 62 years. Eliminating the extreme ages yields a range from 24 to 49 years (M=33, SD=7, median=32). This sample is characterized by wide variability in age range. All research subjects were female.

Two contingencies were observed in sampling. First, if agency services began later than September, 1994, that file was not considered for review. The rationale for this decision was that fewer than three months did not offer case workers and clients sufficient opportunity to implement a case plan which could be measured.

Measurement

With this population, an exploratory content analysis was conducted utilizing their RCSS files. Using the literature reviewed by the author, the SCHAR (Schwalbe Chart Review) was created to measures service utilization and other variables related to BPD as identified in the literature. A copy of the SCHAR is included in the appendix of this report (see appendix A). The SCHAR is designed to measure the presence of observable behaviors and conditions recorded in the case files of people being served in mental health systems during 1994.

It is organized into four fields. First, co-existing mental health diagnosis are recorded. This information was included in response to literature which identifies high co-morbidity of BPD with other axis I and II diagnosis, especially with depressive

disorders and substance abuse related disorders (Benjamin, et al. 1989, Gardner, et al.1991, Westen, et al.1992, Zanarini, et al.1989, Zanarini, et al.1989, Zanarini, et al.1990).

Second, correlates of BPD are observed, including reported history of childhood sexual abuse, psychotic episodes, suicidal behavior, and self injurious behaviors. Each was measured nominally with room to record additional information, such as dates of events and descriptors. For example, recording that self injurious behavior occurred in any particular month may provide important data for analysis in relation to service utilization, including hospitalization, during the target year.

Third, services utilized during the target year are listed. Services listed are those services typically available to clients of RCSS. An "other" category is included to account for additional services. Dates of hospitalizations were recorded.

Finally, marital status and age on 12/31/94 was recorded.

Two variables which were identified in the literature as predictive of outcome are not included in this study. Information about identity problems experienced by people diagnosed with BPD is not included uniformly in the casefiles of the study sample. This variable, though mentioned in the literature as a predictor of treatment outcome (Hull, et al. 1993), will not be measured in the present study. Also, the information in case files does not frequently describe problems experienced by the mothers of RCSS clients when these clients were children, which in effect excludes this predictive variable (Paris, et al. 1988) from the present study.

Information in client files are recorded on the file review instrument when the following criteria are met:

1. Diagnosis: DSM III-R diagnoses given by mental health professionals and listed in clients' diagnostic assessments. DSM III-R was the diagnostic standard used during the study period.

2. Victim of Childhood Sexual Abuse: Mention in client record of touching of genital area during childhood by an adult not associated with the child's hygiene or health examination. Mention in record of client report that client's genital area was touched by another child only if force or the threat of force was included in the activity. Mention in client record that client, as a child, was a victim of "sexual abuse."

3. Psychotic episode: Mention in client record that client experienced audio or visual hallucinations, or dissociative experiences, only when record does not identify these experiences as the result of using mood altering substances.

4. Suicidal ideation: Mention in client record of client thoughts of killing himself or herself.

5. Suicidal plan: Mention in client record of client having chosen a method of killing himself or herself.

6. Suicidal attempt: Mention in client record of client having tried to kill himself or herself.

7. Self injurious behavior: Mention in client record of client having purposefully inflicted himself or herself with pain without intent to kill himself or herself. The experience of pain is the desired effect.

8. Formal services utilized: Mention in client record of client use of any of the listed services.

9. Formal services - other: Mention in client record of agencies or organizations from which the client receives services.

10. Marital status: Mention in record of client marital status on given date.

11. Age: mention in record of client age on given date.

The SCHAR is designed to record variables at the nominal level, with the exception of age and psychiatric hospitalizations, which are measured at interval or ratio levels depending upon their presentation in the participants' charts. From the SCHAR, descriptive analysis was conducted to compare the variety of independent variables listed

on the SCHAR with the presence or absence of psychiatric hospitalizations during a chosen target year.

Procedure

Utilizing the SCHAR, a secondary analysis of data contained in the case management and community support services RCSS files was conducted.

Once all eligible files were selected, file reviews were completed in four steps. First, the most recent diagnostic assessment was located. If the assessment was completed during 1994, all fields of the chart review instrument were documented if they appeared in the assessment. If the assessment was completed prior to 1994, then only "diagnosis" and "victim of childhood sexual abuse" was documented. This distinction is made to ensure that only information relevant to calendar year 1994 is documented.

Second, case notes beginning January 1, 1994 through December 31, 1994 were read. All fields were recorded when mention was made of variables listed in the chart review instrument.

Third, case plans in effect during the 1994 calendar year were read. Additional services received which were not listed in case notes or on diagnostic assessments were recorded.

Fourth, age and marital status were recorded off of management information system forms included for every client.

Upon completion of the file review, empty fields were either coded "no" or left blank. Dates of hospitalization were listed in as much detail as possible from the client files.

Protection of Human Subjects

Permission of RCSS to complete this research was obtained and the approval of the Augsburg College, Minneapolis, Minnesota, institutional review board was granted (see appendix B). Consent for secondary analysis from agency clients is given when

application for services is made to RCSS through the "Rice County Social Services: Your Privacy Rights" document which is included in the appendix of this report (see appendix C). This document also guarantees the privacy of records kept by RCSS. Consistent with this standard, data which were collected for the purposes of this research will be kept separate from identifiers and was reported in aggregate form. The master list of clients diagnosed with borderline personality disorder which was coded to ensure that all eligible files are reviewed has been destroyed. It is not possible to identify specific clients from the data reported in this study.

Research Findings

Twelve people met the eligibility criteria for the study. Diagnostic assessments confirmed the diagnosis of borderline personality disorder for all 12 clients. Case records were extensive, describing each contact made by the case manager or community support worker with their clients or with other people and organizations on behalf of their clients. Case records included information on all selected study variables. Thus the face validity of variables included on the chart review instrument were consistent with data recorded in case records.

The median age of those who were hospitalized (median=32.5 years) is comparable to the median age of those who were not hospitalized during 1994 (median=30 years). The distributions of ages are listed in Table 2. They indicate no pattern of differences between the groups.

Table 2
Age Distribution

Hospitalized	
Yes (n=6)	No (n=6)
26	18
27	24
32	28
33	32
40	47
62	44

The marital status' of those who were hospitalized during 1994 is compared to those who were not hospitalized in Table 3. Again, their were no between group differences.

Table 3
Marital Status by Hospitalization During 1994.

	Hospitalized in 1994			
Marital status	Yes	(n=6)	No	(n=6)
Single	3	50%	4	66%
Divorced	3	50%	1	17%
Widow	0	0%	1	17%

Table 4 shows that all subjects were given multiple diagnoses. Only 3 people were diagnosed with major depression and 3 were diagnosed with a substance abuse related disorder. There was no pattern of diagnosis which distinguished the groups.

Table 4
Diagnosis by Hospitalization During 1994.

	Hospitalized in 1994			
Diagnosis	Yes	(n=6)	No	(n=6)
Major depression	1	17%	2	33%
Bipolar	1	17%	0	0%
Multiple diagnosis Axis 1	5*	83%	5**	83%
Multiple diagnosis Axis 2	0	0%	1	17%

*Diagnosis include: substance abuse (n=2), post traumatic stress disorder (n=2), depression NOS (n=1), dysthymia (n=1), anxiety (n=1), schizophrenia (n=1), schizoaffective disorder (n=1), eating disorder (n=1).
**Diagnosis include: Substance abuse (n=2), schizophrenia (n=1), post traumatic stress disorder (n=1), attention deficit hyperactivity disorder (n=1), reactive attachment disorder (n=1), eating disorder (n=1).

Table 5 describing service utilization by the two groups found that they were remarkably consistent between the groups, with all subjects using an average of 5 different types of services during the year. The only variation in service utilization that is evident is that slightly fewer people who were not hospitalized during 1994 utilized psychiatric services and day treatment services than those who were hospitalized.

Table 5
Service Utilization by Hospitalization During 1994.

	Hospitalized in 1994			
Services utilized	Yes	(n=6)	No	(n=6)
County casework	6	100%	6	100%
Psychiatry	6	100%	4	67%
Day Treatment	5	83%	4	67%
Individual therapy	4	67%	5	83%
Other	6*	100%	6**	100%
Ave. services per client		5		5

*Other services include: job coach (n=2), halfway house (n=2), AA (n=2), public health nursing (n=2), board and care home (n=1), Cedar House outreach (n=1).
**Other services include: Cedar House outreach (n=2), job coach, board and care lodge, adult foster care, nursing home, probation, representative payee, neurology.

An observable difference between groups is shown in Table 6. Study subjects who were hospitalized were more often victims of childhood sexual abuse than were subjects who weren't hospitalized. Hospitalized subjects were also more likely to engage in suicidal ideation. Finally, people who were hospitalized were likely to engage in self injurious behaviors, while none of those who avoided hospitalization had a documented history of these behaviors.

Table 6
Correlates of BPD and Hospitalization During 1994.

	Hospitalized in 1994			
Correlates of BPD	Yes	(n=6)	No	(n=6)
Suicide ideation or plan	5	83%	2	33%
Self injurious behavior	4	67%	0	0%
Sex abuse victim	4	67%	2	33%
Psychotic episode	1	17%	1	17%
Suicide attempt	0	0%	0	0%

Table 7 shows a comparison between those who were hospitalized once during 1994 (n=2) and those who were hospitalized more than once (n=4). People who were

hospitalized more than once averaged 2.5 hospitalizations during 1994. Comparisons between the groups are not meaningful because of the small subsample size, particularly due to the small number of people who were hospitalized only one time during the year.

Table 7
Study Characteristics by Number of Hospitalizations During 1994

	Number of Times Hospitalized			
Variable	Once (n=2)		More than once (n=4)	
Victim of sexual abuse	1	50%	3	75%
Psychotic episode	0	0%	1	25%
Suicide ideation or plan	1	50%	4	100%
suicide attempt	0	0%	0	0%
Self injurious behavior	1	50%	3	75%
Services per client	5.5		4.2	

Further analysis of the association between hospitalization, sexual abuse, self injurious behaviors, and suicidal ideation, is described in Tables 8-10. Table 8 relates the presence of suicidal ideation with hospitalizations, self injurious behaviors, and childhood sexual abuse. The records of 7 people documented the presence of suicidal ideation. Most people with suicidal ideation during 1994 were hospitalized, while only one person without suicidal ideation was hospitalized. In addition, all people who engaged in self injurious behaviors also experienced suicidal ideation. Finally, people suicidal ideation during 1994 more frequently experienced sexual abuse as children than people who didn't have suicidal ideation during that year.

Table 8
Hospitalization, Self Injurious Behavior (SIB), and History of Sexual Abuse, by Suicidal Ideation.

	Suicidal Ideation			
	Yes (n=7)		No (n=5)	
Hospitalization	5	71%	1	20%
SIB	4	57%	0	0%
Sexual abuse	5	71%	1	20%

Table 9 makes childhood sexual abuse the independent variable, and hospitalization, suicidal ideation, and self injurious behaviors the dependent variables. The results show that 6 people experienced sexual abuse as a child, and the records of the remaining 6 did not report this. People who were sexually abused as children were more likely to have been hospitalized, experience suicidal ideation, and engage in self injurious behaviors, than those who did not experience childhood sexual abuse.

Table 9
Hospitalization, Suicidal Ideation, and SIB by Childhood Sexual Abuse.

	Childhood sexual abuse	
	Yes (n=6)	No (n=6)
Hospitalization	4 67%	2 33%
Suicidal ideation	5 83%	2 33%
SIB	4 67%	0 0%

Table 10, relates self injurious behavior to hospitalization, suicidal ideation, and childhood sexual abuse. Everyone who engaged in self injurious behaviors (n=4) was hospitalized during 1994, experienced suicidal ideation, and reported a history of childhood sexual abuse. In contrast, less than 50 percent of those who did not engage in self injurious behaviors had any of these experiences.

Table 10
Hospitalization, Suicidal Ideation, and Sexual Abuse by SIB.

	Self injurious behavior	
	Yes (n=4)	No (n=8)
Hospitalization	4 100%	2 25%
Suicidal ideation	4 100%	3 38%
Sexual abuse	4 100%	2 25%

Discussion

This study found that there was no variation in service utilization by study subjects regardless of whether or not they were hospitalized during 1994. Data analysis showed consistently higher levels of sexual abuse, suicidal ideation, and self injurious behaviors in the group who was hospitalized during 1994 compared to those who were not hospitalized during that year. This result will be discussed, study limitations will be identified, and implications for research and social work practice will be described.

Discussion of Results.

Data indicated that most people in this sample, regardless of whether or not they were hospitalized during 1994, used formal services from most of the service categories that were available to them (Table 5). This finding must be interpreted with caution since it is possible that sub-groups within this sample could consistently utilize more or less services or service packages. This limitation suggests that future measures of service utilization based upon the case files of county case workers should be expanded to include the frequency of case worker contacts with their clients. If possible, the frequency and duration of services offered by the organizations to which case managers have referred clients should also be included.

It is apparent that the services of RCSS were unable to eliminate self injurious behaviors, suicidal ideation, and psychiatric hospitalization. It is possible that this outcome is due in part to the severity of symptoms which clients present to RCSS. This bias is introduced into the study by service eligibility criteria which limit participation in services to those people at risk for psychiatric hospitalization. Because of this bias, it may be noteworthy that none of the research subjects attempted suicide during 1994. What is not known, however, is the extent to which these behaviors would be present in the absence of mental health services.

There was an association demonstrated in this sample between childhood sexual abuse and hospitalization, self injurious behaviors, and suicidal ideation (Table 9). This

finding is consistent with research suggesting that history of childhood sexual abuse is related to negative outcomes in general (Paris, Zweig-Frank & Guzder, 1993, Wagner & Linehan 1994), and in particular is consistent with findings that people diagnosed with BPD who are patients of psychiatric hospitals are more likely to have been sexually abused as children than not (Links & van Reekum, 1993, Lobel, 1992, Weaver & Clum, 1993). Together, the results of the present study along with the findings of previous studies support the conclusion that the experience of childhood sexual abuse in people who are diagnosed with BPD on its own predicts poor outcome for this population.

Limitations

Due to its small sample size and lack of a comparison group, results of this study are not generalizable to other populations of people diagnosed with borderline personaltiy disorder. Without a control group, results cannot be interpreted to be unique to people diagnosed with BPD, nor can there be an assumption that they are representative of all adults served by rural mental health agencies who are diagnosed with BPD.

A second limitation of this study is that the measure of service utilization which was chosen is not a comprehensive measure of this variable. The nominal level measurement which was recorded could not describe the frequency and intensity of service utilization by the research subject. Interval and ratio level measurements describing frequency and amount of service is required to capture all dimensions of service utilization. Because of this, it is not possible to answer comprehensively the research question posed by this study.

Nominal level data were chosen for analysis due to the data available in all research subject charts. Information about Frequency of service utilization was unavailable except for county casework services. Therefore, the conditions for making comprehensive measurements without extensive levels of missing data and investigator judgment were not available. Under these restrictions, nominal level data was chosen to achieve the highest level of precision possible.

Implications and Recommendations

The results of the present study and of the literature which precedes it suggest several implications and recommendations for research, social work practice, and administration and policy.

The first recommendation for research is that a broader replication of this study should be completed using multiple research methods. Caseworkers report that there is often a reduction in the frequency of psychiatric hospitalizations following the implementation of services. This was particularly observed following the opening of a day treatment program during 1992. A future study would therefore be improved over the present study by expanding the definition of service utilization to include measures of frequency of services and intensity of services. Also, the study time frame should be expanded to include pre-day treatment and post-day treatment times. Finally, case studies should be included to explore how services impact the lives of the people who use them, including how they are able to reduce the frequency of psychiatric hospitalization.

The results of the literature review and of the present study also have implications for social work practice. In particular, the results have implications for the goal of treatment. Data suggest that regardless of the services social workers provide to eliminate the need for psychiatric hospitalizations, clients will still need to use these facilities due to childhood histories of sexual abuse (see Tables 9 & 5). In addition, outcome studies indicate that BPD is a condition whose symptoms decrease in severity over time (McGlashan, 1986, Paris, et al. 1987, Stone, et al. 1987). These indicate that the goal of treatment for practitioners and their clients who are diagnosed with BPD should be long term maintenance with gradual symptom relief. Acute episodes of crises should be expected, especially when clients report a history of childhood sexual abuse.

The results of the present study may also have direct use in clinical practice when a psychoeducational orientation to treatment is being implemented. For example, reframing the symptoms of BPD as adaptations made by people who were sexually

abused as children may contribute to a client's understanding of their problems, beginning the process of problem solving and change. Also, clients may benefit from knowing that many others who are diagnosed with BPD experience gradual improvement in their symptom severity over time.

This present study also suggests two recommendations for administrators and policy makers. First, the organizations that work with people who are diagnosed with BPD should be especially supportive of those hired to work directly with these clients. Clients who are diagnosed with BPD frequently present themselves with suicidal ideation and self injurious behaviors (see Table 8). It is the author's experience that when clients frequently experience crises which result in psychiatric hospitalizations, the emotional resources of practitioners are often "used up." Administrators and policy makers should actively support these practitioners with manageable caseloads, training, and employee support programs.

Second, the use of psychiatric hospitalization by the present study's sample is a fiscal concern for administrators and policy makers (see Table 7). New models of service delivery that propose to reduce rates of BPD symptoms and psychiatric hospitalizations should be researched and implemented. An example may be found in the results of Linehan, et al. (1991). Linehan, et al. found that their group model of treatment reduced self injurious behaviors and reduced the amount of psychiatric hospitalization required by people diagnosed with BPD during the treatment year.

Conclusion

Borderline personality disorder is characterized by instability of interpersonal relationships, self-image, affect, and impulsivity (American Psychiatric Association, 1994, p. 654). The literature regarding this disorder was reviewed to develop a profile of the population who are diagnosed with this disorder. Using this profile, a research instrument was developed, and a study was completed which examined the relationship between service utilization and psychiatric hospitalization among clients of a public social service agency.

In the context of this exploratory study there was no pattern in the use of different services and psychiatric hospitalization. However, a possible relationship between history of childhood sexual abuse and psychiatric hospitalization was demonstrated. In addition, childhood sexual abuse was related to suicidal ideation and self injurious behaviors. Based upon these findings, implications for future research and recommendations for public social service agencies who serve this population were proposed.

Appendix A

Chart Review Instrument

CONTENT ANALYSIS FACE SHEET

Participant number:

Diagnosis:___Borderline personality
___Other personality disorder
_____
_____

___Major Depression
___Bipolar Disorder
___Other Axis I disorder
_____
_____

Victim of Childhood Sexual Abuse: Yes___ No___

Psychotic episode Yes___ No___

Suicidal ideation in past year: Yes___ No___

Suicidal plan in past year: Yes___ No___

Suicide attempt in past year: Yes___ No___

Self injurious behavior in past year: Yes___ No___

Formal services utilized in past year:

___Individual therapy
___Case Management
___Community Support Services
___Psychiatric Services
___Day Treatment
___Division of Rehabilitative Services
___Other_____
_____
_____
___Psychiatric Hospitalization
Number of Days_____

Marital Status on 12/31/94: Single___ Married___ Divorced___ Widow(er)___

Age on 12/31/94:_____

Content analysis instructions

1. Read most recent diagnostic assessment

A. If diagnostic assessment was completed during 1994, using check marks, document each variable on the face sheet that is mentioned in the diagnostic assessment.

B. If diagnostic assessment was completed prior to 1994, document only "diagnosis" and "victim of childhood sexual abuse."

2. Read case notes beginning January 1, 1994 through December 31, 1994. Document each variable left blank from step 1.

3. Read case plans written for time periods beginning January 1, 1994 through December 31, 1994, documenting services received during this time period. When case plans written prior to January 1, 1994 are in effect during January, 1994, document only those services received beginning January 1, 1994.

4. Fields remaining undocumented after step 3 will be coded "no" or "not present." If marital status is not documented, marital status listed on the information system application form will be used.

Definitions

Diagnosis: DSM III-R diagnostic labels given by mental health professionals and listed in clients' diagnostic assessments. DSM III-R is the diagnostic standard used during the reporting period.

Victim of Childhood Sexual Abuse: Mention in client record of touching of genital area during childhood by an adult not associated with the child's hygiene or health examination. Mention in record of client report that client's genital area was touched be another child only if force or the threat of force was included in the activity. Mention in client record that client, as a child, was a victim of "sexual abuse."

Psychotic episode: Mention in client record that client experienced audio or visual hallucinations, or dissociative experiences, only when record does not identify these experiences resulting from the use of mood altering substances.

Suicidal ideation: Mention in client record of client thoughts of killing himself or herself.

Suicidal plan: Mention in client record of client having chosen a method of killing himself or herself.

Suicidal attempt: Mention in client record of client having tried to kill himself or herself.

Self injurious behavior: Mention in client record of client having purposefully inflicted himself or herself with pain without intent to kill himself or herself. The experience of pain is the desired effect.

Formal services - other: Mention in client record of agencies or organizations from which the client seeks help.

Appendix B

Approval Letter

RICE COUNTY
SOCIAL SERVICES

P.O. Box 718 • 1201 West Division St. • Faribault, MN 55021-0718

(507) 332-6115
Toll Free from Northfield
(507) 645-4723
Toll Free from Lonsdale
(507) 744-5185
TDD
(507) 332-6248
FAX
(507) 332-6247

Date: March 14, 1995

To: Joseph Ericson, Ph.D.
Chair, Institutional Review Board

From: Dale Szyszka
Director, Rice County Social Services

RE: Research proposal submitted by Craig Schwalbe

Rice County Social Services gives Craig Schwalbe agency support to complete a study of the relationship between service utilization and psychiatric hospitalization among our adult clients who are diagnosed with borderline personality disorder. We will allow Mr. Schwalbe access to the files of those adults being served in the mental health department. We believe that this research project will provide us with useful information regarding our services to this population.

Each of our adult clients have signed a privacy rights document which both guarantees confidentiality for all those who are clients of Rice County Social Services, and informs them that information in their files can be used to "make reports, do research, audit and evaluate our programs." A copy of this document was provided to you in Mr. Schwalbe's initial IRB application. I am assured that Mr. Schwalbe is committed to the confidentiality and privacy of those people whose files are reviewed by him. Mr. Schwalbe will, therefore, conduct this research as an agent of Rice County Social Services.

Appendix C

Consent Form

MP - 1M - 7-93

RICE COUNTY SOCIAL SERVICES

Your Privacy Rights

This sheet tells you about your rights under the Minnesota Government Data Practices Act. This Act protects your privacy, but also lets us give information about you to others if a law requires it and we tell you before we do it. This sheet tells why and when we will ask for and give information about you. It applies to all future contacts you have with this agency. Those contacts may be in person, by mail, or on the telephone.

Why Do We Ask You For This Information?

We may ask you for information so we can:

- Tell you from other persons by the same name or similar name.
- Decide if you can get money or services from us and what or how much you can get.
- Help you get medical, mental health, financial or social services.
- Decide if you can pay for any help you get.
- Make reports, do research. audit and evaluate our programs.
- Investigate reports of people who may lie about the help they need.
- Decide about out-of-home care and in-home care for you or your childern.
- Collect money from other agencies, like insurance companies, if they should pay for your care.
- Decide if you or your family needs protective services.
- Collect money from the state or federal government for help we give you.

Do You Have To Answer The Questions We Ask?

Generally the law does not say you have to give us this information. Federal laws require that you give us your Social Security number if you want financial help or child support enforcement.

What Will Happen If You Do Not Answer The Questions We Ask?

We need information about you to tell if you can get help from any program. Without some information, we may not be able to help you. It may be that we can help you but the help may be late or not enough. Giving us wrong information on purpose may result in investigating and charging you with fraud.

Who May We Share The Information About You With?

We may give information about you to the following agencies, if they need it for investigations or to help you or help us help you. This does not mean we always share information about you with these people. It only says that there is a law that says we may share with these people sometimes. If you have questions about when we give these people information, ask your worker.

- Minnesota Department of Human Services.
- Other welfare offices, including child support enforcement office.
- Mental health centers.
- State hospitals or nursing homes.

Ombudsman for mental health and mental retardation.

- Insurance company to check benefits you or your children may get.
- Hospital if you, a friend, or relative has an emergency and someone needs to be contacted.
- The Internal Revenue Service.
- County Welfare Boards.
- Minnesota Department of Public Safety.
- Collection Agencies, if you do not pay fees you owe to us for services.

- Anyone under contract with the Minnesota Department of Human Services or U.S. Department of Health and Human Services, or the county social services agency.
- U.S. Departments of Health and Human Services.
- U.S. Department of Labor and Minnesota Department of Labor and Industry.
- U.S. Department of Agriculture.
- Social Security Administration
- Minnesota Department of Jobs and Training.
- Minnesota Department of Revenue, if you owe child support or a debt to medical assistance or to check income.
- Higher education coordinating board, so they can determine eligibility for scholarships and grants-in-aid.
- Credit bureaus.
- Minnesota Department of Veteran Affairs.
- Minnesota Department of Human Rights.
- Others who may pay for your care.
- County attorney, attorney general or other law enforcement officials.
- Community food shelves or surplus food programs.
- State and federal auditors.
- Guardian, conservator or person who has power of attorney for you.
- Minnesota Historical Society.
- Creditors, to tell them your wages cannot be garnished while you get financial help.
- School District.
- Local and state health departments.
- American Indian tribe, if your children are Indian and in need of out-of-home placement or you are in need of employment or training.
- Employees or volunteers of this agency who need the information to do their jobs.
- Child or adult protection teams.
- Multidisciplinary teams.
- Court officials, if there is an active case involving your family or if you are convicted of sexual assult.
- Coroner/medical examiner if you die and your death is investigated.
- Ombudsperson for families.

You Have The Right To Copies Of Information We Have About You.

- You may ask if we have any information about you.
- If we have information about you, you may ask for copies. You may have to pay for the copies.
- You may give other people permission to see and have copies of private data about you.
- If the information is unclear, you may ask to have it explained to you.

How Do You Appeal If You Think Information Is Not Accurate Or Complete?

Your objection must be in writing and be sent to the head of this agency. You must tell us why the information is not accurate or complete. You may send your own explanation of the facts you disagree with. Your explanation will be attached any time that information is shared with another agency. For more information on how to do this, ask your worker.

What Privacy Rights Do Children Have?

If you are under 18 parents may see data about you and authorize others to see this data, unless you have asked that this information not be shared with your parents. You must make this request in writing and say what data you want withheld and why. If the agency agrees with you that not sharing the data would be in your best interest, we will not share the data with your parents. If we don't agree with you, the data may be shared with your parents if they ask for it.

If you have any questions about the information on this form, ask your worker.

Client Signature	Date

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