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BORDERLINE PERSONALITY DISORDER: ITS RELATION TO THE
MAJOR PSYCHOSES AND OTHER GENETIC FACTORS

City University of New York

PH.D.

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BORDERLINE PERSONALITY DISORDER:
ITS RELATION TO THE MAJOR PSYCHOSES
AND OTHER GENETIC FACTORS

by

Elaine Heimberger Tulis

A dissertation submitted to the Graduate
Faculty in Psychology in partial fulfillment
of the requirements for the degree of Doctor
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1979

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1979

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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CHAPTER I

INTRODUCTION

Two challenging and confusing young women were admitted to an inpatient unit of a psychiatric hospital and were assigned to the present author for long-term treatment and management. Their presenting clinical pictures included such diverse symptomatology as inability to work and study, extreme self-consciousness, severe anxiety, identity concerns, poor interpersonal relations, pervasive feelings of loneliness, unimportance, and emptiness, marked depression, feelings of depersonalization and derealization, and impulsivity and self-destructive acts. A history of difficult, often unsatisfactory, therapeutic encounters came with the package. As these patients did not present with the gross manifestations of a psychotic illness nor function on the level of a neurotic individual, one became interested in them and their place along the psychopathological spectrum. They were thought of as "borderline," although officially diagnosed as "Other personality disorders of specified types (301.89)" according to the DSM II.

Furthermore, as a trainee and psychotherapist in a hospital setting for the first time, one is flooded with a whole host of transferential, and countertransferential, reactions. The patient's negative transference is especially powerful, and the therapist is often perceived as dangerous, threatening, untrustworthy, ungiving, uncaring, and inadequate. At the beginning of treatment, these patients would typically avoid eye contact with the therapist and remain silent and

hostile. In one of our very first sessions, when asked a seemingly innocuous question about her parents, one such patient replied angrily: "I can't talk about them...it's all too confusing." She would wait until the last minute of our Friday sessions to discuss requests for passes with them, as a result of this ambivalence. To paraphrase: "I can't stand being with them, but I can't be without them."

In working with these patients, then, one is often made to feel like a traumatizing, punitive, bad parent. Once this is worked through somewhat, one hears about the "real" parents. Furthermore, as these patients are hospitalized, one invariably meets and works with the families, particularly the parents. It is interesting to this observer that in the parents' backgrounds as well, there is usually a long history of psychiatric treatment, and the siblings, too, have marked adjustment and emotional problems.

Over the past forty years, perhaps even earlier when Freud wrote of "narcissistic neuroses," attempts have been made to define, delineate, and understand this clinical picture and its genesis. There seem to be two major lines of thinking--that viewing borderline pathology as a distinct clinical entity (borderline state, personality disorder, syndrome) and that seeing it as along the schizophrenic spectrum (borderline, latent, ambulatory, incipient, pseudoneurotic schizophrenias, to name a few). Genetic notions similarly vary. Genetic notions, to one group, suggest a disturbance in the early development of object relations and consolidation of the ego. To the other, thoughts about an inherited genetic disposition to the illness are central. Rather than

enter into the arena of the eternal nature-nurture controversy, the intent of this study is to systematically look at these factors in the histories of these patients.

The following chapter will be concerned with the various ways of defining and thinking about "borderline" disorders, and the concomitant etiological considerations. Now that a more precise definition of the borderline patient has evolved, and is about to be written into the official diagnostic nomenclature, the proposed DSM III of the American Psychiatric Association, it is time to move from the small group of anecdotes, speculations and case studies, and systematically obtain hard data from larger samples of these individuals. The intent of this dissertation is to study the families of "borderline" patients, and the presence of psychopathology, particularly manic-depression and schizophrenia, as well as to delve into other contributory, particularly early developmental and environmental, factors. The remaining chapters, then, will include a description of the research, namely, the major hypotheses, and the methodology and statistics which will be utilized in addressing these, a section on the findings, and a discussion of these and their implications for treatment as well as for future research.

It is only with a better understanding of the contents and boundaries of this heretofore wastebasket category, in addition to its anlagen (be they hereditary or developmental), that preventive and therapeutic measures can be effectively implemented.

CHAPTER II

GENESIS OF THE CONCEPT AND "GENETIC" CONSIDERATIONS

While the term "borderline" has its roots in the psychoanalytic papers of the 1930's and 1940's, seeds of a notion about a disturbance which does not fit neatly into the neurotic or psychotic realms were planted long before. Grinker et al. (1968) cited Hughes, who, in 1884, commented that the "borderland of insanity is occupied by many persons who pass their whole life near that line, sometimes on one side, sometimes on the other" (p. 10). Similarly, Rosse, in 1890, spoke of patients "in the twilight of right reason and despair" (p. 10); Freud, in his metapsychological papers, grappled with the "narcissistic neuroses" and Clark, in 1919, noted that some periodic depressives and mild dementia praecox could be seen as "borderland" cases.

Early Psychoanalytic Papers

Stern (1938) was the first to use the term "borderline" when describing a group of patients who did not fit into the psychotic or neurotic groups, yet had characteristics of both, and were difficult to treat by classical analytic methods. He enumerated the various character traits or defensive phenomena which defined their clinical picture. The underlying character component, (1) narcissism, was found with (2) psychic bleeding (immobility or paralysis); (3) inordinate hypersensitivity; (4) psychic and body rigidity; (5) negative therapeutic reactions; (6) constitutionally based feelings of inferiority;

(7) masochism; (8) a state of deep organic insecurity or anxiety; (9) the use of projective mechanisms; and lastly, (10) difficulties in reality testing, especially in interpersonal relations (p. 468).

In addition to a description of the symptomatology of these patients, Stern ventured some etiological notions. He noted that in at least three-fourths of these patients, one of several adverse factors accounted for what he saw as basically a disturbance, or arrest, in narcissistic development. "The mother was a decidedly neurotic or psychotic type, in more than one instance developing a psychosis or psychotic episode of short duration" (p. 469). He noted, too, a general deficiency of spontaneous maternal affection, or affective or narcissistic malnutrition, considerable discord among parents leading to divorce, separation, and desertion by one parent in some of these patients before they reach the age of seven, and even actual cruelty and neglect on the part of the parents. In general, these patients suffered from "affect hunger," never feeling loved, and hence secure. Stern postulated, in addition, some hereditary or constitutional factor, a deeply rooted insecurity, as contributing to the borderline patient's deficit in self-esteem. Forty years ago, Stern was struggling with the age-old, unanswerable question of the contributions of environment and endowment to the genesis of borderline disturbances. While this question still cannot be answered today, it is the intent of this dissertation, with the benefit of forty years' work in identifying and understanding these patients, to more systematically explore such factors in the patients' backgrounds.

Soon after Stern, Helene Deutsch (1942), in her classic paper,

described "as-if" patients, in whom an impression of normality and superficial adaptiveness disguised a severely disturbed emotional life. "As-if" patients are characterized by depersonalized states; inner experiences and experiences with objects which are empty, impoverished and devoid of warmth, spontaneity, and originality; a readiness to identify with, be influenced by, and mold and adhere oneself to others; and aggressive tendencies which are hidden by passivity. It is this lack of genuineness, and the lack of a real individual relating genuinely to others, which constitutes an "as-if" patient.

Clinical material of five such patients, with a glint of Deutsch's notions about the causative elements, are then provided. In the first case cited, Deutsch comments that "there was never a living warm emotional relationship to the parents or anyone else" (p. 269), and adds, almost parenthetically, that: "In addition to particularly unfavorable environmental influences, it should be noted that the patient came from a very old family overrun with psychotics and invalid psychopaths" (p. 271). In the second case, she described the female patient as having had a father with a "mental illness" who moved to and from sanitariums, a "neurotic...very abnormal" mother, and a younger brother who was psychotic at an early age and ultimately became catatonic (pp. 271-272). The patient, thus, failed to develop an adequate object cathexis, and her relationships were based purely on identification. Raised by an alcoholic father who abused her mother, a third as-if patient was deprived of affection and warmth in her childhood. Deutsch commented briefly on two other patients related to

this as-if group, one homosexual boy suffering from an affective deficiency, and a woman whose family had many psychotics. While Deutsch related the etiology of their disturbances to disturbances in the processes of sublimation and identification, the fact that the four female patients cited above had a history of psychoses in their families, despite their own fully maintained capacities to test reality, led her to suspect a schizophrenic process. Further, it was her impression that "the schizophrenic process goes through an 'as-if' phase before it builds up the delusional form" (p. 279). It was admittedly unclear to Deutsch whether these "as-if" emotional disturbances "imply a schizophrenic disposition or constitute rudimentary symptoms of schizophrenia" although they clearly represented "variants in the series of abnormal distorted personalities" (p. 280).

Greenacre's (1945) description of psychopathic patients overlaps somewhat with that of Deutsch's group. Interested in those patients who manifest antisocial behavior without classical neurotic or psychotic symptoms, Greenacre focused rather on the defect in conscience than disturbances in affect and in the sense of reality. And while they essentially agree about the early emotional impoverishment in the genesis of the pathology, Greenacre proposed specific configurations of the parental characteristics and parent-child relationships to account for the development of the disturbance. According to Greenacre, the father is often a renowned, respected, stern and obsessional man, who is distant, preoccupied, and inspires fear on the part of his children. The mother, on the other hand, is typically an indulgent,

vain, and frivolous woman, who holds a deep narcissistic attachment to her child. In fact, both parents are usually highly narcissistic individuals who use their child as a narcissistic object geared to reflect well upon them. In Greenacre's conceptualization, then, the family pathology seems to be only in terms of severe character problems and does not border on or approach the psychoses.

A "very disturbed mother" (p. 700) is seen typically in the histories of the borderline patients described by Wolberg (1952). These borderline conditions, again lying between neurotic problems and the psychoses, present with temporary psychotic-like episodes, fluid paranoid feelings as opposed to a fixed delusional system, occasional sensory disturbances and misinterpretations as opposed to hallucinations, and intact reality testing despite some temporary difficulties. Further, intense dependency, aggression, and separation anxiety are paramount. Interpersonal relationships are colored in oral and sado-masochistic terms: the borderline patient is either controlling or controlled, conforming or rebelling, and constantly needs to be special and is hypersensitive, and then conforms, to others. Masochistic self-negation and depreciation are accompanied by grandiose feelings and fantasies. Feelings of failure, hopelessness, emptiness, and loneliness bring on intense rage and hostility, with deep feelings of guilt. The aggression and self-punishment are expressed by a variety of means, ranging from psychosomatic symptoms, fatigue, overeating, or use of drugs or alcohol, or more serious acting out, leading to increasing anxiety and depression.

Genetically, Wolberg sees the greatest trauma as having occurred during the preoedipal stage of development, from birth to three years, and emphasizes two factors: "(1) the organization of the home and family structure, and (2) the neurotic problems of the mother figure" (p. 699). As for the first, she described a chronically disorganized family, or an organized one whose mores were at variance with those of society. Unlike the psychopath, the borderline has people in protecting roles. Wolberg minimizes the role of the father, averring that the basic anxiety is in relation to the disturbed mother, who appears to be one of four types: (1) the severe obsessive-compulsive mother, who sacrifices all for her family while repudiating her self; (2) the narcissistic, sadistic mother, who is critical and competitive, and manifests strong masculine qualities; (3) the paranoid mother, whose paranoid tendencies, seclusiveness and detachment hamper her child's ability to develop trust and closeness, to identify himself with peers and a group, and to venture into what seems to be a threatening, hostile, outside world; and (4) the passive schizophrenic-like mother. This passive, "usually schizophrenic," mother is not there, and lives in a fantasy world. The fathers, on the other hand, are categorized as: (1) passive-aggressive; (2) hostile, aggressive, attacking, and controlling; (3) paranoid; or (4) mildly psychopathic, promoting antisocial acts. While Wolberg seems to possess a certain confidence and clarity with regard to these genetic formulations, there is little, if no, mention of how she derived these findings and from how many cases. Again, however, there is a sense of a disturbed parent, of

varying degrees of psychopathology including schizophrenia, as a contributing factor in borderline pathology.

Borderline Disturbances and their Relationship
to Schizophrenia

Bleuler (1911, translated 1950) views schizophrenic symptoms as existing in varying degrees and shadings. The milder case, that is, "latent schizophrenia," with far less overt, manifest symptoms, according to him, is the most frequent form. He wrote:

We can see in nuce all the symptoms and all the combinations of symptoms, which are present in the manifest type of disease. Irritable, cold, moody, withdrawn or exaggeratedly punctual people arouse, among other things, the suspicion of being schizophrenic. Often one discovers a concealed catatonic or paranoid symptom and exacerbations occurring in later life demonstrate that every form of this disease may take a latent course.
(p. 239)

Zilboorg (1941) was interested in those people who "appear 'to walk about life' like any other 'normal' person" (p. 154) and give the impression of warmth, position, and intelligence. Yet, concealed behind their outward normality lies a hidden pathology. He noted their weak and impoverished personalities, dereistic thinking, shallowness of affect and human relations, primitive unintegrated impulses, and chronic ineffectiveness and failures in life. Akin to Bleuler, schizophrenia, to Zilboorg, constituted a generic name for a psychopathological process which could present itself in various forms or degrees of overtness of clinical phenomena and at different stages of

development, ranging from earlier to well-advanced forms. The milder variant of this psychopathological process, namely, those who seldom required hospitalization, were designated by Zilboorg as "ambulatory schizophrenics." This term paved the way for consideration of the borderline disturbance as a variant along the schizophrenic spectrum, and several thinkers followed this lead in eschewing the new term "borderline" in deference to more schizophrenia-related concepts.

Knight (1953), however, approached the question of the borderline disturbance's relationship to schizophrenia with more conservatism. "Borderline state" is a diagnostic label used by Knight for want of a better term for this "borderline strip in psychopathology where accurate diagnosis is difficult" (p. 6). The existent psychiatric nomenclature provided no secure place for the patient who "is quite sick but not frankly psychotic" (p. 1) and who utilizes both neurotic and psychotic mechanisms. He discusses those conditions which involve schizophrenic tendencies of some sort from an ego psychological vantage point, and notes the severe weakening of normal ego functions, including secondary process thinking, realistic planning, maintenance of object relations, and defenses against primitive impulses. This weakened ego functioning, to the point of ego impairments of psychotic intensity, are easily betrayed in unstructured, free association interviews and give the projective psychological tests a loud schizophrenic ring. Despite the presence of signs of schizophrenia, Knight does not denote this state as being in the schizophrenic realm. He states rather that precise diagnosis should take into account the type and degree of psychotic

pathology and the balance of ego mechanisms and pathogenic instinctual forces. As for etiological notions, Knight notes: "As a result of various combinations of the factors of constitutional tendencies, predisposition based on traumatic events and disturbed human relationships, and more recent precipitating stress, the ego of the borderline patient is laboring badly" (p. 6) and offers no elaboration.

Quoting Bleuler, Bychowski (1953) proceeded to speak of "latent psychosis" as a preferable concept. It was used to describe those patients with character-neurotic difficulties, or neurotic symptomatology which, with certain provocation, may erupt into psychosis; deviant behavior including delinquency, perversion, or addiction; psychopathy masking an arrested psychosis; and lastly, psychosis brought forth by psychoanalysis. In other words, Bychowski's "latent psychosis" denoted psychotic potentialities concealed behind facades of neuroses, perversions, addictions, and other deviant personalities. While not specifying genetic elements for what was understood to be a dissociated primitive ego core, Bychowski does remain within the arena of those seeing it as a disturbance within the realm of the more serious, psychotic illnesses.

Hoch and Polatin (1949) and Hoch and Cattell (1959) followed the tradition of those viewing the syndrome within the larger realm of schizophrenia. They used the term "pseudoneurotic schizophrenia" to encompass those patients who initially appeared to be neurotic, yet upon closer examination, their affect, thinking, behavior, and

symptomatology betrayed impairments of regulation and integration unseen in neuroses. It was their intent to "delineate this poorly defined subgroup of the schizophrenic reactions" (1959, p. 17). Clearly, to them, these patients were seen as having schizophrenia, but with different leading symptoms than those classically seen in other forms of schizophrenia, as well as symptoms that suggest psychoneurotic disorders. The authors criticized the wide use of the term borderline (as a descriptive adjunct to case, patient, state, psychosis, or schizophrenia) as well as the use of terms ambulatory (e.g. many paranoids are ambulatory) and latent. They posit, rather, that "pseudoneurotic schizophrenia" is a specific psychopathological syndrome, with manifest symptomatology including some, but not all, of the primary symptoms of schizophrenia (disorders of thought, associations, and emotional regulation, and of sensorimotor and autonomic functioning) with secondary symptomatology (including diffuse anxiety, neurotic symptoms, and pansexuality). Hoch and Cattell note, too, that a minority of these patients subsequently develop a more classical schizophrenic syndrome.

Meanwhile, in the 1940's and 1950's, Schmideberg was strongly favoring the notion of borderline as a distinct clinical entity because of the borderline's tendency to be "stable in their instability." She described borderline as a syndrome blending normality, neurosis, psychosis, and psychopathy in a relatively stable lifelong pattern. In her later paper, Schmideberg (1959) seemed more committed to its differentiation from schizophrenic illnesses. She states: "As the

borderline condition rarely ushers in a schizophrenia, it should not be regarded as a prepsychotic condition, as latent schizophrenia, pseudoneurotic schizophrenia, etc." (pp. 398-399). While she admits to some resemblance between borderlines and schizophrenics in remission, borderlines "have not been and are not likely to become schizophrenics" (p. 399). Rather, she sees them as falling into subtypes including depressives, schizoids, paranoids, querulents, hypochondriacs, and antisocials. They suffer, according to Schmeiderberg, from disturbances affecting almost all areas of the personality and life. Relationships to others, to reality, and to society are shallow and disordered; borderlines are generally nonsocial, lacking in genuine feeling and capacity to empathize with and understand others. Their capacities for work, pleasure, and sexual fulfillment are similarly impaired. They manifest disturbances in judgment, memory, observation, and in connecting cause and effect and anticipating consequences. They are chronically unhappy, yet not depressed, and replete with contrasts and inconsistencies. While providing colorful descriptive passages, and practical therapeutic recommendations, there is little mention of the family and etiological components. However, her efforts to divorce the condition from schizophrenia are well noted.

Recent Approaches from the
Standpoint of Object Relations Theory

While, as noted earlier, the majority of the early papers regarded

these borderline patients as fundamentally schizophrenic, the thinking gradually emerged that they represented a distinct clinical group, a stable form of personality structure. Specific symptom and defensive constellations, as well as a particular pathology of object relations, characterized this group.

Aspects of the therapeutic situation, and more specifically of the transference, are used by Modell (1963) as diagnostic indicators for the nosological entity he calls borderline. This entity, to him, refers to a symptomatologically heterogeneous group of patients, depressed, schizoid, addicted, perverted, and the like, who are similar to schizophrenics in the nature of their object relations as manifested in the similar transference relationship. To pinpoint borderlines, Modell points to certain features of the transference, including (1) their relations to others as if the latter were transitional objects, and relations which are based on primitive identification and not love; and (2) the sense of fusion or confusion of self and object. Modell cites the simile of the freezing porcupine, who manifests enormous dependence and needs for protection and warmth, but whose quills, or aggression, make them fear and avoid closeness.

Unlike Zilboorg (1941) and others, Modell does not see borderline as referring to an incipient or early schizophrenia, but suggests that borderline represents a syndrome separate from the major schizophrenias. While the transference reveals similarly disturbed and distorted object relations in the former, the relationship to external objects is not abandoned, but maintained. He states quite emphatically: "It

is my impression that these two groups are separate nosological entities, and that a member of one does not become a member of the other" (p. 289), and argues that it is not possible to explain the difference between borderlines and schizophrenics on purely psychological grounds; an unknown biological additive is necessary.

Modell considers the factors contributing to the developmental arrest leading to impaired differentiation of self from object, and hence, disturbed object relations. He notes both the forces of mothering, as well as the child's biological equipment. While the latter factors interfering with the growth of object relations are generally unproven, it is the former, "some failure in maternal care" (p. 289), which often presents itself in cases of arrested ego development. His own clinical experience suggests that more subtle forms of deficient mothering, as opposed to actual loss, are present.

In some cases the mothers were unable to make emotional contact with their children, as they themselves were severely depressed or even psychotic. In others, it was possible to reconstruct the fact that there had been significant absence of the usual amount of holding and cuddling. In still other patients, the physical care appeared to have been adequate, but there was a profound distortion in the mother's attitude toward the child. For example, a mother's incapacity to perceive the child as a separate person may induce a relative incapacity on the child's part to differentiate self from object. (p. 289)

Modell adds that these deficiencies may not be sufficient to lead to arrested ego growth, but might necessitate other biological factors.

During the 1960's and 1970's, the name Kernberg, in many circles,

has become almost synonymous with the word borderline. His approach, however, differs from that of others reviewed here. In his prolific work, Kernberg (1975) is concerned more with the patient with the "borderline personality organization," as opposed to syndrome, state, disorder, schizophrenia, and the like. He views these patients as having "a specific, stable, pathological personality organization... (which) is not a transitory state fluctuating between neurosis and psychosis" (p. 3). It is not the presenting symptoms which form the criteria for diagnosis, as is the case with other investigators in this area (to be seen later). Rather, the necessary diagnostic components for this chronic characterological entity go beyond the presence of the specific observable symptomatic features he outlines. The latter include anxiety, neurotic symptoms, sexual perversions, pre-psychotic or low-level personality disorders, impulsivity and addictions. Particular emphasis is placed upon psychostructural features, including a weakened ego (manifested in part by poor, though maintained, reality testing, a lack of anxiety and frustration tolerance, and a lack of impulse control), a tendency toward primary process thinking, primitive defense mechanisms including splitting and projection concomitant with a pathology of internalized object relations resulting in identity diffusion.

Kernberg's work centers more on the development of normal and abnormal internalized object relations and the implications for technical handling, with little emphasis on the specific etiology of the ego fixation characteristic of the borderline conditions.

Rather, the pathological organization is seen, in a more recent paper (1978), as resulting from the confluence of "genetic, constitutional, biochemical, familial, psychodynamic, and psychosocial factors" (p. 90). Kernberg does note the potential for borderline pathology as lying in the third stage of his schema depicting the development of internalized object relations (from 6 to 18 months), at a time when good and bad self and object images or representations are still split or dissociated. The patients, of varying character pathologies, fail to reach the level of an integrated concept of self and others, and thus suffer from identity diffusion.

Masterson (1976), in reviewing these notions, comments that Kernberg favors a constitutional etiology, specifically, an excess or predominance of pregenital, especially oral, aggressive drives, and an impaired capacity to neutralize aggression and tolerate anxiety. In an early paper, Kernberg (1966) wrote:

More characteristic for the borderline personality organization may be a failure related to a constitutionally determined lack of anxiety tolerance interfering with the phase of synthesis of introjections of opposite valences. The most important cause of failure in the borderline pathology is probably a quantitative predominance of negative introjections. Excessive negative introjections may stem both from a constitutionally determined intensity of aggressive drive derivatives and from severe early frustrations. (pp. 250-251)

However, there is little tangible evidence to support the notion of a constitutional imbalance or impairment, and of intense aggression during the child's early years, as well as little understanding of what is meant by severe early frustrations. If the latter has to do with

disturbed mother-child relations, it is interesting to note that there is no mention of Mother, Father, Parent(s) or Family in the Index of his 1975 work. While Kernberg espouses a theory of pathological internalized object relations, his work seems to minimize object relations, as such, and the role of the external, maternal, objects in the individual's "extra" psychic world.

The "psychotic character" is the term developed by Frosch (1970) during these years to define what others had been calling borderline, as-if characters, ambulatory schizophrenics, and pseudoneurotic and latent schizophrenics. The psychotic character, to Frosch, as well, represents a "specific and recognizable clinical entity" (p. 25), apart from psychosis, with particular identifying features. It is neither a transitional phase to or from psychosis or a latent psychosis which might surface. Frosch cites the patients' fears of disintegration, of dissolution of self and identity, and of engulfment during episodes of decompensation. There is a tendency toward diffusion of ego boundaries, regression which is reversible, and transient psychotic manifestations, including disturbances in the sense of reality (feelings of unreality and depersonalization), and perceptual disturbances (delusions, hallucinations, and illusions). The psychotic character, unlike the psychotic, has developed beyond the level of objectlessness and has attained some degree of object constancy. He needs gratifying objects; however, his object relations remain at the infantile level.

Frosch, unlike Kernberg, contends that the family lends considerable understanding to the genetic background of the pathology.

He notes, at one point, the parents' "engulfing attitude" which undermines internalization and the individual's capacity to test reality, and comments, too, that the longstanding picture of disruption and chaos in the patient's life is seen in the family as well. Dangerous and traumatizing parents figure prominently in the early histories of these patients, according to Frosch. To quote:

In a number of patients, I found that from very early childhood on they were subjected to out-of-phase and nonphase-related actual traumatic experiences at the hands of significant love objects. These experiences were actual and real, not fantasies, and often assumed bizarre and grossly traumatic proportions, very much as in the psychotic. These traumata interfere with the development of the ego and its functions along organized and healthy lines, resulting, e.g., in an impairment of the capacity to master internal and external stimuli. (p. 42)

Frosch sees the trauma as having occurred during the late symbiotic phase to earlier phases of the separation and individuation stage of psychic development, that is, roughly between six and 24 months of age.

Masterson and Rinsley (1975), reflecting Mahler's (1975) influence, consider a similar time frame but conceptualize the "trauma" in somewhat different terms. They stress the role of the mother's faulty libidinal availability to the child during the separation and individuation period of development (18-36 months) as crucial to the developmental arrest specific to borderline pathology. They contend:

The determining cause of the fixation of the borderline is to be found in the mother's withdrawal of her libidinal availability (i.e., of her libidinal supplies) as the child makes efforts towards separation-individuation during the rapprochement phase. (p. 265)

In other words, the child is rewarded for regression and punished, or abandoned, when attempts at separation and individuation are made. It is felt that the mother, "herself suffering from a borderline syndrome" (p. 167), enjoys having her own needs met during the child's symbiotic phase. Four case examples are provided: one in which an alcoholic mother rewarded the patient for passivity, inactivity, and regression; another in which there was a "frankly paranoid father" (p. 173); a third involving a father who was an explosive manic-depressive; and a fourth whose mother rewarded infantile and compliant behavior.

Masterson's (1976) psychotherapeutic work with borderline adolescents and adults, that is, the patients' reports, and observations of the family interactions and transference reactions, lend greater credence to this paradigm as well as to an understanding of the parents' psychopathology. The evidence once again suggests a borderline syndrome in the mother, who derives much gratification from the symbiotic involvement with her child. Masterson adds that:

The father of the borderline child may have any one of the severe forms of character pathology-- i.e., borderline, narcissistic disorder, or even schizophrenia. The key feature is that he is not available to the child as an uncontaminated object to support the forces of individuation and mastery of reality. (p. 44)

The father, then, "can seem to have any of the severe forms of character pathology as long as his behavior reinforces the mother's clinging" (p. 346), and Masterson suggests that the mother might have a severe character disorder as well. Masterson's thinking has

added another vector to the etiological considerations and nature of psychopathology in the family. However, his conclusions derive from an indiscernible number of patients. However, he admits "the final evidence on this issue of psychopathology in the parents is far from available" (p. 346), and remains open to change his views given further evidence in this area.

Recent Phenomenological Approaches

Grinker, Werble, and Drye (1968) undertook a systematic investigation of the borderline entity in order to better define and understand phenomenological and etiological aspects of this vague, uncertain category. They reviewed the various positions regarding the borderline issue, namely, those who eschew the concept, those who see it as a transition from neurosis to psychosis, and those who see it as a stable clinical entity with both neurotic and psychotic manifestations. In their thinking, borderline represents a syndrome typified by arrested development of ego functions and conclude that it is a "nonschizophrenic developmental disorder" (1978, p. 164) with deficient self and object constancy. Grinker (1978) emphatically states "there is no borderline schizophrenia. One is or is not" (p. 167), yet agrees that there is a borderline psychosis, as Frosch indicates.

In their study of 60 patients hospitalized on a psychiatric ward, Grinker and his associates (1968) assessed patients' ego functions on the basis of carefully observed and rated behavioral manifestations. After statistical and cluster analyses of the 93 variables, four

subgroups were factored out. These included (1) a psychotic border; (2) the core borderline group; (3) as-if patients; and (4) anaclitic depressed patients. The borderline group, in turn, was characterized by four defining features: a prevalence of anger, a defect in affectional relations, an absence of indications of a consistent self identity, and depression, experienced as feelings of loneliness and isolation. Furthermore, the lack of schizophrenic-like elements made them feel that borderlines and schizophrenics were separate disorders. More recently, they have given more weight to psychotic-like experiences, which they declare differ from schizophrenic psychoses by virtue of their brief, reversible, and ego-dystonic nature.

In the early study as well, Grinker et al. assessed the family using the data from routine psychiatric social workers' evaluations and found:

There seems to be no doubt that the family of the borderline is unhealthy, but how specifically does it differ from the schizophrenic type or any other type is not known. (1968, p. 116)

In all, no specific family type was correlated with any of the subgroups. In considering the causative elements in the defect in ego functions of these patients, the investigators saw borderline as ontogenetically derived from many phases of life experiences and multicausal factors. They cite the genetic studies in schizophrenia, but the small number of cases studied, and the lack of such research with borderline cases considered out from under the umbrella of schizophrenia, do not lend strong support to such a factor. They mention constitutional

differences in drive-ego regulations, or in the amount of libido and aggression and ways of dealing with the drives, as well as deficient child-mother relationships. Yet, as this writer feels, the dearth of empirical data does not permit more than conjecture with respect to these issues.

In a five year follow-up study of the patients in their borderline groups, Werble (1970) found no evidence of changes toward schizophrenia. This further supported their contention of a differentiation of the patients they term borderline from schizophrenics.

In more recent work, Grinker et al. (1977, 1979), reported results of an ongoing study of the families of origin of 14 borderline patients. It is important to note here that the summary analysis in this study of family characteristics was based on patient reports. It was found that of the 14 families, only 42.9 percent were intact. Divorce affected 35.7 percent of the families, and parent death was noted in the remaining 21.4 percent. In addition, the patient reports suggested the families were characterized by underinvolvement and unrelatedness, unreliability and instability, negative and conflictual relationships (manifested by hostility, rejection, contempt, or frank physical and sexual abuse), and disappointment by one or both parents. The marital units and sibling relationships were both highly conflict-laden, and it was noted that "the parental unit failed to provide basic nurturance, protection, or empathic caring...in none of the fourteen cases did the child feel that either parent understood his needs or feelings" (1977, p. 165). Grinker (1979) summed up these findings:

...in 10 of the 14 cases there was a family history of unclear, undiagnosable mental problems of various types. Also, a much higher incidence of divorce and parental loss was observed in this group than in a comparison group of schizophrenics. (pp. 49-50)

In all, Grinker and his colleagues outlined certain defining features of the borderline syndrome, and clearly saw it as an entity separate from schizophrenia. While familial disturbance and mental illness (other than schizophrenia) was detected, they do not specify the nature of the psychopathology in these families. Grinker (1979) concludes by stating that "the borderline syndrome represents an independent entity deriving from a developmental defect, the source (etiology) of which is not yet known" (p. 51).

Six features common to borderline patients were identified by Gunderson and Singer (1975b) in their survey of the major contributions to this area. These include: (1) the presence of intense affect, predominantly anger and depression, plus varying degrees of anxiety and anhedonia; (2) impulsivity and self-destructive acts, including sexual deviance and drug usage despite a (3) facade of social adaptiveness; (4) a propensity to psychotic episodes, which are brief, transient, and reversible, and related to stress; (5) deviant thinking, including looseness, fabulizing, and odd reasoning in unstructured situations, like psychological testing or psychotherapy; and lastly, (6) superficial and transient interpersonal relationships vacillating between dependency and clinging to those characterized by manipulation and devaluation. As can be seen, two of Grinker's criteria are subsumed

under the first of the above features.

In a later study, Gunderson and Kolb (1978), utilizing the Diagnostic Interview for Borderlines at McLean Hospital, differentiated the functioning of borderline patients from that of neurotic depressed, and schizophrenic patients, and all other patients, and confirmed the above findings. The differentiating features, condensed into seven areas, involved: (1) low achievement; (2) impulsivity; (3) manipulative suicide; (4) heightened affectivity; (5) mild psychotic experiences; (6) high socialization; and (7) disturbed close relationships. Gunderson (1977) notes that these results confirm those of the Grinker et al. (1968) study, especially three of the four characteristics, but that only a fraction fit into Wender's group of borderline schizophrenics (to be discussed below). As they admit, the kinds of samples selected by the different investigators invariably biased their conclusions about the presence of thought disorder in the patients, and thus the relationship of borderline pathology to schizophrenia. In all, however, Gunderson contends from these findings that the borderline entity deserves separate nosological status, based on the aforementioned discriminating traits.

According to Stone (1978), Gunderson and Grinker's criteria are "very nearly coextensive with Kernberg's" (p. 353). Kernberg reports, too, that those patients with borderline personality organization are very similar to those designated as having a borderline personality disorder. Considering these various conceptualizations, the Task Force on Nomenclature and Statistics of the American Psychiatric

Association (1977, 1978), headed by Spitzer, have attempted to devise a set of criteria for borderlines, which would make it a specific nosological entity. The proposed draft of the DSM III contains the results of this enterprise and those patients who fit their newly defined criteria for Borderline Personality Disorder¹ will be the subjects of this research.

Adoption Studies and Genetic Research

In the Copenhagen study, Kety, Rosenthal, Wender, and Schulsinger (1968, 1976) utilized the adoption strategy to disentangle environmental from genetic factors in the transmission of schizophrenia. Capitalizing on the considerable epidemiological data available in Denmark, the group studied 33 adopted individuals who were schizophrenic, a matched control group of adoptees who were not schizophrenic (or with no history of psychiatric hospitalization), and their biological and adoptive relatives. While the Danish only recognized the syndrome of "chronic schizophrenia," the Americans broadened the concept of schizophrenia. The investigators, realizing the need for "a system of classification with finer graduations" (1968, p. 352), adopted the notion of a "schizophrenic spectrum of disorders," including chronic schizophrenia, acute schizophrenic reaction, and borderline, or pseudoneurotic (in the sense of Hoch et al.) schizophrenia.

It was found that the biological relatives of the schizophrenic

¹For diagnostic criteria for Borderline Personality Disorder, see Appendix A.

adoptees showed a significantly increased prevalence of schizophrenia and related disorders despite having lived apart from them, as compared to control groups. The adoptive relatives, who have reared or been reared with these patients, on the other hand, showed no higher prevalence of such illnesses than that expected in the general population. The Denmark study, then, found compelling evidence to support the operation of genetic factors in the transmission of schizophrenia. The investigators were certain to state that these findings do not dispel the role of environmental factors and state, in 1976, that "further research to identify the relevant (environmental) factors among the many psychosocial, physical, chemical, and infectious influences" (p. 427) and how they interact with the individual's innate vulnerability is necessary.

Broadening the criteria for schizophrenia to a spectrum of disorders embodying chronic (true, process), latent, and acute (reactive) types, which was later widened to include uncertain (questionable) schizophrenia, and schizoid or inadequate personality, Kety's group was then able to examine the relationship of these forms or subtypes to classic, chronic schizophrenia. In their 1976 paper, it was noted that individuals with "the disorders we call borderline or latent schizophrenia and uncertain schizophrenia show a statistically significant high prevalence in individuals genetically related to chronic schizophrenics in comparison to individuals not so related" (p. 417), and deduced that the "schizophrenic spectrum as a whole was higher in the biological relatives of schizophrenics" (p. 417).

Kety, Rosenthal, and Wender (1978) examined further the genetic relationships within the schizophrenic spectrum and concluded that while acute schizophrenics were not related to chronic schizophrenics, the less severe syndromes, the "milder disorders of cognition and affect" (p. 219), designated as latent and uncertain schizophrenias, were genetically related to classic schizophrenia.

At this point, it is necessary to understand what is meant when Kety et al. speak of the milder, latent subtype. The "borderline state," (1976) which was subsequently (1978) retermed "latent or borderline schizophrenia" and was always synonymous with "pseudoneurotic schizophrenia, ambulatory schizophrenia, questionable simple schizophrenia, 'psychotic character,' and severe schizoid individual" (1978, p. 215), was seen by Kety et al. as having the following characteristics: strange or atypical thinking which tends to ignore reality and logic; vague, murky speech; brief episodes of cognitive distortion; feelings of depersonalization; micropsychosis; anhedonia; no deep or intense involvements; as-if, superficial interpersonal behavior; chaotic sexual adjustment; multiple neurotic symptoms and severe widespread anxiety.²

Spitzer and Endicott, in validating the diagnoses of the Kety study, did not differentiate between their diagnoses of latent schizophrenia, uncertain schizophrenia and schizoid or inadequate personality, but subsumed them under the heading "Schizotypal personality"

²For more detailed diagnostic criteria, see Appendix B.

in the proposed DSM III.³ Kety and his colleagues (1978) admittedly doubt that they would be able to show significant differences between these three groups. In their last published statement, they posit the existence of a milder syndrome of schizophrenia, "'latent' or 'uncertain' schizophrenia now combined as schizotypal personality" (p. 222), in the biological relatives of, hence genetically related to, chronic schizophrenics.

Wender (1978), reviewing the data from these adoption studies in a compendium on borderline personality disorders, noted that at least half of the borderline schizophrenics, as defined by his group, have a genetic contribution. That is, their finding of schizophrenic-like, or schizophrenic spectrum, pathology in the relatives of these individuals suggests a genetic contribution to what they see as milder forms of the disorder. Further, a cross-fostering study with sick adoptive parents found that the schizophrenic rearing was not related to borderline schizophrenia, only the schizophrenic genes were. Wender repeatedly stresses the importance of realizing that the disorder they call borderline schizophrenia, although akin to Hoch and Polatin's pseudoneurotic schizophrenic patient, may not be generalizable to other disorders variously associated with the borderline label. However, the latter syndromes may bear a "partial but incomplete relation" (p. 266) to their conceptualization of borderline schizophrenia, and Wender speculates about the existence

³For diagnostic criteria for Schizotypal Personality Disorder, see Appendix C.

of "homogeneous and etiologically meaningful subgroups" (p. 268). The question then remains whether there is a genetic contribution, both schizophrenic and otherwise, to these other "borderline" disturbances.

Siever and Gunderson (1979) reviewed the adoptive, family, and twin studies relevant to the borderline conditions. In a more detailed reanalysis of the Kety et al. data, i.e., in isolating the borderline from the chronic schizophrenics, they concluded:

- (1) Some, but not all, borderlines have this genetic relatedness;
- (2) some borderlines may share common genetic factors that are not specifically related to chronic schizophrenia;
- and (3) borderlines may be a more genetically diverse group (i.e., less etiologically specific) than chronic schizophrenia. (p. 65)

They further raise the possibility of a relation to affective disturbances.

Stone (1978), reviewing the literature on "borderline" or intermediate levels of psychopathology, acknowledged that "systematic analysis of families of patients considered borderline according to the currently most-accepted definitions had thus far not been done" (p. 355). He accordingly attempted to fill the gap. Utilizing the psychostructural diagnostic criteria of Kernberg and several of Spitzer's items to delineate the borderline patients, he studied their families with psychotic and psychoneurotic patients as their controls. Stone, Bauer, and Kernberg agreed upon 18 hospitalized patients who fit their borderline criteria, some of whom Gunderson considered borderline as well. Mental illness in first and second

degree relatives was evaluated by use of a questionnaire, and where possible, personal interview, and severe illness was categorized as schizophrenia-spectrum disorder, manic-depressive disorder, or schizoaffective disorder. The findings were striking.

The 18 patients with a borderline structure had 27 ill relatives of which none were clearly schizophrenic, 3 were schizoaffective and 24 had a manic-depressive disorder. (p. 356)

Elsewhere in this study, the pedigree of a sample of outpatients with borderline structure were compared with those of patients with psychotic structure. The borderlines had 33 ill relatives, 16 of whom were either schizophrenic or schizoaffective, and he found no significant difference in the number of schizophrenic relatives between the borderline and psychotic groups.

In all, Stone concludes:

The term borderline in contemporary usage, whether defined psychostructurally (Kernberg) or phenomenologically (Grinker, Gunderson, Spitzer) applies to patients, a great many of whom (two out of three in the author's series) appear to have a strong genetic loading for a major functional psychosis, as impressive as that noted among patients with psychotic structure. Thus far this loading is inclined toward the manic-depressive end of the phenotypic spectrum. (p. 358)

He qualifies this, however, by saying that different patient samples might yield different results. Apart from Kety's (1968, 1976) definition and findings of a genetic relationship to schizophrenia, Stone sees borderlines as genetically related to manic-depressives, but admits they "are still an etiologically heterogeneous group" (p. 364).

Noting the semantic confusion surrounding the borderline concept, Stone attempts to represent topographically the various ways in which it has been used and understood. As most borderline patients, to Stone, represent mild forms of the major functional psychoses, they mostly fall in the realm of (A) of all patients ranging from schizophrenics to affective psychoses. Because borderline is often referred to patients without such genetic predisposition, Stone pictures a small proportion of the group in a second realm (B), where other factors, namely, "organic and unusually adverse environmental factors are seen instead" (p. 360). For example, the patients described by Zilboorg, Schmideberg, Kety et al., and Hoch et al., and Donald Klein's hysteroid dysphorics all fall into Realm A. Knight, Deutsch, and Kernberg's borderline patients are seen as overlapping both the hereditary and nonhereditary realms.

Again, Stone concludes: "Many patients called borderline--by most of the popular definitions--appear to have a pronounced hereditary predisposition to mental illness" (p. 363). It is these findings, concomitant with this writer's limited clinical experience with these individuals, and the years of speculation and controversy about the phenomenology and etiology of borderline disturbances with little hard data to support these hypotheses, that provide the background for the present undertaking. One questions whether a sample of patients diagnosed as having a Borderline Personality Disorder will yield different findings. That is, what are the genetic factors, both in the sense of family history of mental illness, and in the

sense of early developmental and environmental variables, which might potentiate the development of these borderline disturbances, and do they, in fact, form an etiologically heterogeneous group?

CHAPTER III

INTENT OF THE STUDY

A Study of Patients with
Borderline Personality Disorders

As seen in the literature reviewed in the preceding chapter, the term "borderline" has been associated with many diagnostic labels (including as-if personality, borderline state, pseudoneurotic schizophrenia, borderline schizophrenia, borderline personality organization, and borderline personality disorder). Accordingly, there have been varying etiological conceptualizations. The very term itself implies, to many, a syndrome which "borders" on the major psychotic illnesses, namely, schizophrenia and manic-depression. Recent research addresses such views. The work of Kety et al. (1968, 1976, 1978) suggests that "borderline schizophrenia" is genetically related to schizophrenia. Others, like Stone (1978), suggest a genetic loading for a major functional psychosis, inclining toward the manic-depressive end, in patients with borderline structure. Still others speak of character pathology in the parents of those with borderline disturbances. Lastly, there is the paradigm of thinking which relates borderline pathology to maternal failure, and an arrest of ego development during the critical period of separation and individuation.

Clearly, the term borderline has been applied loosely to varying

schemas; the groups studied above are not homogeneous entities. Rather, different pathognomic elements are deemed paramount; disturbances in thinking, affect, behavior, or internalized object relations are given varying emphases in the differing conceptualizations. It is only recently that the term borderline is being introduced into the official psychiatric nomenclature. As mentioned earlier, in the recent drafting of The Diagnostic and Statistical Manual (DSM) III of the American Psychiatric Association, Spitzer and his colleagues (1977, 1978) have included "Borderline Personality Disorder" with explicit diagnostic criteria. Now that a formal definition is on the threshold of official diagnostic status, it is time to investigate large numbers of those patients fitting the newly defined criteria.

A Study of Family Psychopathology:

Hypotheses Under Consideration

In their statements cited above, both Grinker (1968) and Stone (1978) bemoan the dearth of data regarding the families of those patients considered borderline according to contemporary definitions. And Masterson (1976) would welcome further evidence in this area. Over the forty years since Stern (1938) first used the term "borderline," there has been little systematic investigation of large numbers of these individuals. Attractive, compelling theories are based on anecdotes and psychotherapy cases. Genetic findings are gained solely from studies of 33 adoptive schizophrenics and their

families, and 18 patients with borderline psychostructure. There has been no such work, to this author's knowledge, with those patients fitting the criteria for Borderline Personality Disorder. The intent of the present study is to begin to bridge this gap.

The family psychopathology hypotheses under consideration include:

Hypothesis I: Prevalence of Major Psychotic Illnesses

A. The families, including natural parents and full siblings, of individuals diagnosed as having a Borderline Personality Disorder, henceforth referred to as borderline, do not manifest a significantly greater prevalence of schizophrenia than that found in the population at large.

B. The prevalence of schizophrenia in the families of the borderline patients is significantly lower than that in the families of schizophrenic patients.

C. The families of the borderline patients do not manifest a significantly greater prevalence of manic-depressive illness than that found in the population at large.

D. The prevalence of manic-depressive illness in the families of borderline patients is significantly lower than that found in the families of manic-depressives.

E. The families of those patients fitting the newly defined DSM III criteria for Schizotypal Personality Disorder (Latent, Borderline Schizophrenia), on the other hand, show a greater prevalence of schizophrenia than that found in the population at large, but

less than that found in the families of schizophrenic patients.

Hypothesis II: Prevalence of Other Psychiatric Illness

A. The families, namely natural parents and full siblings, of patients diagnosed as having a Borderline Personality Disorder manifest a significantly greater involvement in psychiatric care for treatment of neurotic and personality disorders than the immediate relatives of manic-depressive and schizophrenic patients. That is, one is postulating the presence of neurotic and character pathology in the families of these patients.

A Study of Early Developmental and Environmental Factors

Various hypotheses have been entertained to account for the arrested ego development and impaired internalized object relations characteristic of borderline patients. These, as noted in Chapter II, include the facts of "unfavorable environmental influences" and "traumatic experiences," "maternal failure," "deficient mothering," and "libidinal unavailability," as well as parental discord, and "a constitutionally determined intensity of aggressive drive derivatives" and "severe early frustrations." Again, there has been little in the way of systematic investigation of such factors in the backgrounds of large samples of these individuals. Because of the dearth of empirical data, this aspect of the research was descriptive and exploratory. Any anomalies of early development,

behavior, personality, or health, in addition to unusual environmental circumstances relevant to maternal and paternal care and availability, were tabulated and examined. This will be presented in greater detail in the following chapter.

Some questions, derived from the literature, which this study attempted to address include:

1. Was the maternal care of these individuals deficient? Was there an absence of affectional supplies? In what ways?

2. Was there an increased prevalence of absence or loss of, or separation from, the parental object(s)? Was there an increase in illness, mental and otherwise, in the parents during the child's early development, and, if so, at what period of time? Was there ever another caretaker involved?

3. Was there an increased prevalence of marital discord and tension among the parents? Was there a preponderance of marital separation and divorce in their families, and, if so, at what period?

4. Was there an increase in aggressive drive manifestations, including tantrums and aggressive behavior, in the early histories of these individuals?

5. Does one see manifestations of the so-called organic insecurity or constitutional component in the backgrounds of these patients? In other words, was there a lag in the development, or impairment, of basic ego functions, including motor, speech, and cognitive functions? Was there a history of minimal brain dysfunction or learning difficulties? Was there a history of physical illness

or surgery?

6. Were there particular elements or clusters of factors, of an hereditary or environmental nature, which might be seen as predictive of this borderline pathology?

7. Does one see particular attributes, personality traits, and behaviors of the parents, or particular patterns of interaction within the family, which are typical in the backgrounds of these individuals?

An Overview of the Research Approach

In his studies of the genetic relatedness of manic-depressive illness and schizophrenia, Loranger (1978a, 1978b) employed the new DSM III criteria to obtain samples of 100 male and 100 female manic-depressives and 100 male and 100 female schizophrenics who had been hospitalized at the Westchester Division of The New York Hospital. He then studied the morbid risks for these illnesses in their first degree relatives and concluded (1978b): "There is no indication in the present data that schizophrenia is more common in the parents, siblings, and children of manic-depressives than it is in the general population" (p. 6). This study, then, provided experimental comparison groups and morbid risk data with which one could compare the morbid risks for the major psychotic illnesses in the immediate relatives of borderline patients diagnosed according to the same nomenclature.

In addition to this experimental approach to test Hypotheses I

or surgery?

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In addition to this experimental approach to test Hypotheses 1

and II, a more clinical approach, based on the case study or life history method, was employed to study the developmental and environmental variables. The use of the case study method raises serious doubts in the field of scientific research. Bolgar (1965) discusses the history, legitimacy, and limitations of the use of the case study method. Its tradition in clinical research dates back to Kraepelin and Freud, who used it in the foundation of psychoanalytic theory. Bolgar cites, too, the method's wide usage in the fields of anthropology and sociology, in addition to psychology. She clearly states that the case history method is not to be used for proving or validating hypotheses. Rather, as she notes:

There seems to be universal agreement about the fact that the case study method is the ideal way to generate hunches, hypotheses, and important discoveries. (p. 31)

In addition, the combination of both the experimental and clinical approaches was seen as a promising way of addressing issues of scientific interest. It is with this in mind that one must approach the historical material gathered in this research.

Limitations of the Study

The use of hospital charts has obvious drawbacks which can be understood by merely dissecting the phrase "hospital charts." The use of "charts" or retrospective data raises serious questions, as noted above. The quality of the data is contingent upon the reliability and openness of the informing persons. Their resistance to accepting interventions and providing material, and their selective

recollection of events, is often colored by both psychopathological and adaptive phenomena. Many of these individuals are quite resistant to treatment, and their families are either unavailable, uninvolved, hostile, or threatened by psychiatric intervention. Bolgar (1965) noted such disadvantages as "the subject's defensiveness, transference feelings, or fantasies and the often unknown ideal image of himself which he tries to present" (p. 34). Indeed, many of the charts reflect these attitudes in the paucity of information around significant issues and events.

In addition to that unreported by the patient and her family, much remains unrecorded by the chart historian, and therefore out of the reach of psychological investigation. Relevant material may be raised in the therapy hours. However, many of the patients do not remain hospitalized beyond the immediate crises and are discharged once they have become aware of the seriousness of their difficulties in the here and now, and outpatient care has been arranged. While this presents a limitation to the study, many charts do reflect a concern with psychopathology in the families and early developmental and environmental variables.

Secondly, the "hospital" involved in the study is a training institution, where the therapeutic staff is comprised almost entirely of trainees of varying levels. Therefore, the quality of the data rests, too, on the expertise and theoretical biases of these trainees. The latter is often determined by the prevalent beliefs of the time, and one wonders about the effects of the fashionable, compelling

ideas of the Kernberg administration upon young, impressionable trainees. In addition to their neophyte status, the trainees often have significant time constraints, which cause adequate chart documentation to suffer. Pat phrases and shorthand (e.g., "The patient continues splitting. Defenses are being interpreted in session.") permeate many charts with little supporting evidence. People are easily labeled (e.g., "mother is controlling and intrusive") and the labels stick throughout the chart, with little more description or elaboration. It is the hope, in this study, that the necessity for meeting specific phenomenological and behavioral criteria might reduce some of the influence of this source of bias, but it must be noted that the quality of the charts may have forced the elimination of a group of patients who, with better documentation, might have been included in the present sample.

Further, the hospital involved, a private institution in the greater New York area, demands substantial insurance benefits. One wonders, therefore, about the kind of borderline population encountered in a private institution, in such an area where such benefits are necessary. In other words, are we omitting a group of sicker individuals who, by circumstance, are admitted to county or state institutions? Are we including a healthier group, whose financial resources and other circumstances enable them to receive private psychiatric care, when another similar group might not receive such attention? Is there a background of psychological-mindedness and

awareness behind the admission? There are individuals who may fulfill the borderline criteria, but have never been hospitalized or received any treatment. Clearly, their absence might distort the present findings. Further, it is not known whether the disproportions and deviations in ethnic and socioeconomic compositions of the borderline sample, as compared with the general population, also affect the findings.

One methodological drawback, obvious to those who complain about the lack of scientific rigor in the case history approach, is the lack of a control group for the second part of the study. Therefore, this aspect has been more exploratory and descriptive, providing a springboard for further investigation. While the incidence of certain factors (e.g., alcoholism and suicide in the families) may be compared with that in the general population, there is no way of discerning whether these are correlated with borderline, or simply all, psychopathology. Furthermore, ages of onset, periods of risks, and morbid risk data for these disorders are not clearly defined and may vary from study to study. Again, the charts are incomplete with respect to past history, and one wonders, as well, whether greater significance might be attached to certain past behaviors and incidents when there is a problem in the present. In any event, without control groups, it remains unclear how the borderline patient's past history differs in actuality from that of a normal, or sicker, individual.

CHAPTER IV

METHODOLOGY

Subjects

The material examined in the present study included psychiatric hospital charts obtained from the Medical Records Department of the Westchester Division of The New York Hospital-Cornell Medical Center in White Plains, New York. The charts of those female patients with an American Psychiatric Association DSM II discharge diagnosis of "Other personality disorders of specified types (301.89)" were examined. Most often, the discharge diagnosis was specified as "borderline." In several instances, a more specific disorder was not indicated. In these cases, the charts were reviewed nevertheless, as it was the understanding at the institution that 301.89 was to encompass the borderline disorders, and therefore this group held potential candidates for this study. Those few cases diagnosed as "immature" or "passive-dependent personality disorders" were not included in the chart review, whereas those few diagnosed as "mixed" characters, "narcissistic," "sado-masochistic," or "infantile personality disorders" were investigated. It was felt that these latter diagnoses might be compatible with a borderline diagnosis, as was suggested by Kernberg (1975). The diagnosis, further, was made by the patient's inpatient therapist in conjunction with the supervisory or administrative psychiatrist or psychologist. In many cases, the patient was interviewed by an attending physician in rounds

or case conferences, and this, in addition to the input from other staff members, necessarily influenced this diagnosis.

It was decided to investigate only the charts of females at this time, because of the ready availability of data pertaining to female manic-depressive and schizophrenic patients (in addition to combined male and female groups). Furthermore, Spitzer and Endicott (1979) contend that the incidence of borderline pathology is generally higher for females than males. The study was then conducted with the anticipation that these findings may eventually be compared with those obtained for male borderlines.

A small pilot study designed to assess the feasibility of diagnosis via chart review involved the perusal of eight charts randomly drawn from the list of female patients discharged in 1976. For the study itself, the charts of those females discharged in 1978 were reviewed consecutively, followed by those discharged in 1977, and then those of early 1979. Basic information about the patient, including hospital number, last New York Hospital admission and discharge, age, age at first psychiatric treatment and at first hospitalization, date and place of birth, education, occupation, marital status, religious affiliation, and previous inpatient and outpatient treatment, were recorded.¹

The charts were then examined in order to determine whether these patients met the newly proposed DSM III (1977) criteria for Borderline

¹For form used in research, see Appendix D.

Personality Disorder. At least six² of the following operational criteria had to have been "characteristic of the patient's long-term functioning and (were) not limited to discrete episodes of illness.

- (1) Impulsivity or unpredictability in at least two areas which are potentially self-damaging, e.g., spending, sex, gambling, drug or alcohol use, shoplifting, overeating, physically self-damaging acts.
- (2) A pattern of unstable and intense interpersonal relationships, e.g., marked shifts of attitude, idealization, devaluation, manipulation (consistently using others for his own ends).
- (3) Inappropriate intense anger or lack of control of anger, e.g., frequently loses temper, always angry.
- (4) Identity disturbance manifested by uncertainty about several issues relating to identity, such as self-image, gender identity, long-term goals or career choice, friendship patterns, values and loyalties, e.g., "Who am I?", "I feel like I am my sister when I am good."
- (5) Affective instability: marked shifts from normal mood to depression, irritability or anxiety, usually lasting hours and only rarely for more than a few days, with a return to normal mood.
- (6) Problems tolerating being alone, e.g., frantic efforts to avoid being alone, depressed when alone.

²The criteria used in this study were those set forth in the 4/77 draft. The satisfaction of six criteria was mandatory. In their 1/15/78 revision, Spitzer et al. (1979) have made the requirements less stringent and have required the satisfaction of only five criteria. As all of the data had been collected utilizing the early draft, the sample studied is based on the satisfaction of six of the eight borderline criteria. A later project might involve those who satisfy five as well. In any case, the satisfaction of six criteria in the present sample increases the reliability of diagnosis.

- (7) Physically self-damaging acts, e.g., suicidal gestures, self-mutilation, recurrent accidents or physical fights.
- (8) Chronic feelings of emptiness or boredom."³
(pp. 86-88)³

The review of charts was quite comprehensive, involving the examination of the Psychiatric Case Study (including History, Mental Status, and Formulation), the Social Service and Psychosocial Summaries, the progress notes of the therapist, social worker, nursing staff, mental health workers, as well as other specializations, the Discharge Summary, and any reports obtained from other professionals or facilities. Psychological test results were not a part of this review. Only those patients who unequivocally fit the above criteria were included in the borderline sample in this study, and chart review proceeded until a sample size of 50 such female patients had been realized.

The characteristics and symptom manifestations which contributed to the fulfillment of the borderline criteria will be discussed in the next chapter.

At the same time, the charts were examined in order to determine whether any of the criteria for the new category, Schizotypal Personality Disorder (Latent, Borderline Schizophrenia),⁴ had been met, with the intent that a sample of these individuals might be studied with respect to the above hypotheses and questions.

³For form used in research, see Appendix A.

⁴For criteria and form used in research, see Appendix C.

Reliability of Diagnosis

In order to determine the extent of reliability of diagnosis according to this method, five charts were randomly selected, by the use of a random numbers table, from all of those charts finally investigated, with the exception of those of the adoptive patients. These five were then diagnosed blindly by an independent investigator (A. W. Loranger) familiar with the procedure, diagnostic categories, and hospital charts.

The five charts which were randomly chosen included two "borderline" cases, one questionable case, and two cases which failed to meet the criteria. Dr. Loranger thoroughly agreed with this investigator's evaluation of the five cases. Furthermore, as noted earlier, the recent revision in the criteria (that is, in the need to satisfy five rather than six criteria) has contributed to the reliability of this, more stringently diagnosed, group.

Psychopathology and Personality

Characteristics of Family Members

Information in these charts about the first degree relatives, namely, natural parents and full siblings, were gleaned principally from the Psychiatric Case Studies, Monthly, Social Service and Discharge Summaries, and where available, clinical data and information from other sources. The ages and occupations of the members were recorded, as was any history of psychiatric treatment. Other significant material related to the family members was also noted, collated,

and considered, including personality characteristics, behavior, habits, time frame of illness, and past and present relationships with the patient, to name a few.⁵

On the basis of history of treatment and other material in the records, the family member was categorized as (I) Normal: without any history of psychiatric treatment, without obvious psychiatric disorder; (II) Impaired: without any history of psychiatric treatment, yet with evidence for a psychiatric disorder (e.g., periods of depression, alcoholism, child abuse, etc.); (III) Outpatient Treatment: current or past outpatient psychiatric treatment; (IV) Hospitalized: current or past hospitalization for a psychiatric disorder.

Further, the data was evaluated, and the treatment team was contacted, in order to determine whether the relatives in categories (III) and (IV) had ever been treated for manic-depression or schizophrenia. As most reliable morbid risk data are based solely on treated cases, only those treated cases meeting the criteria were used in the comparisons with the other groups. The data thus obtained was classified utilizing strict criteria (proposed DSM III criteria) when possible, as well as broader, less stringent, standards (including Family History--Research Diagnostic Criteria, diagnoses made by other facilities, as well as impressions of the present treatment team). In addition, information about the remaining treated relatives was evaluated as to whether they were treated for neurotic

⁵For form used in research, see Appendix E.

or personality disorders.

The sample sizes of relatives were corrected for age, on the basis of whether or not they had completed the period of risk for the particular illness. Each relative was assigned a weighted score on just this basis according to the Weinberg Shorter Proband Method, as set forth in Slater and Cowie (1971). This method will become clearer as the reader proceeds. Those family members who had completed the period of risk were assigned a weight of 1. Those who were still within the period were assigned a 1/2 weight. Those who have not entered the period of risk were excluded. Those relatives who were designated as having that illness or disorder were considered as having passed through the period of risk, with a weighted score of 1. When a relative's age was not available, the age was estimated based on other material in the chart (including spouse's or children's ages). If a relative had died, the age at time of death was used. The "Bezugsziffer," or sample size corrected for age and risk, was then obtained for each illness. Based on Loranger's (1978a; 1978b) work, the period of risk for a bipolar affective illness (or affective illness with episodes of both mania and depression) is 15 to 60 years of age for males and females. The period of risk, for both sexes, for a unipolar disorder or depressive disorder, is 15 to 70 years of age. For females, the period of risk for schizophrenia is 15 to 50; for males, the period of risk is narrower, and between 15 and 40 years of age. The number of relatives treated for the particular illness, divided by this adjusted sample size, then yielded the mor-

bid risk for that illness. Winokur et al. (1971) clearly defines morbid risk as "an estimate of the probability that a person will develop the disease in question at some time or another during his life if he survives the period of risk for the disease" (p. 136).

The data thus obtained was then compared with the expected prevalence of that illness, or morbid risk, for the population at large. Along with Loranger (1978b), the morbid risk for schizophrenia in the general population, was the weighted-mean lifetime expectancy of 1.17 percent (SE = 0.0187), resulting from Zerbin-Rüdin's (1967) compilation of 20 investigations. The morbid risk for manic-depressive illness is estimated at about 1 percent. This lifetime expectancy rate includes both bipolar and unipolar disorders. There is no weighted-mean lifetime expectancy (and standard error) for the separate disorders, to this investigator's knowledge, as there was for schizophrenia. Rather, the morbid risk for bipolar disorders is at most .5 percent and may be as low as .1 percent. Therefore, 1.0 percent was considered the morbid risk for all affective disorders in the general population, and a crude estimate of .3 percent was compared with the risk for a bipolar disorder in the relatives.

The morbid risks of these severe illnesses in the relatives of the borderline study population were then compared with similar data compiled by Loranger (1978a; 1978b) concerning the morbid risks for these illnesses in the immediate relatives of 100 hospitalized females, and 200 hospitalized males and females, who were diagnosed (according to DSM III) as manic-depressive, and the morbid risks for relatives

of comparable groups of patients diagnosed as schizophrenic. The statistical measures utilized, due to the large number of the samples, were the standard error of the difference between two proportions, and tests of significance based on the Z, normal curve distribution.

In a similar way, the morbid risk for neurotic and personality disorders, and the risks for suicide and alcoholism in the families of the borderline patients, were compared with those in the families of Loranger's two groups of 200 patients. The latter two, in addition, were compared with the lifetime prevalency rates in the population at large. The period of risk for neurosis and personality disorders was estimated to be 15 to 40 years of age, and the sample sizes of the three groups were adjusted accordingly. There were no available statistics, to this investigator's knowledge, on the morbid risk for personality disorders in the population at large.

Morbid risk data for suicide is difficult to find; most statistics are based rather on annual incidence rates. For the present study, references to the lifetime morbidity rate made by Dublin (1963) were utilized. He stated "...out of every 1,000 white male infants born, 15 will eventually take their lives; out of every white female infants, four will do so" (p. 15). Thus, of 2,000, 19 or .95 percent will take their lives at some point. Incidence rates have changed only slightly over the years since Dublin's work (10.6 per 100,000 in 1960 to 12.5 in 1976), and thus, based on Dublin's estimate that one percent of all births end in suicide, a crude estimate of one percent as the morbid risk for suicide in the general population was used.

The period of risk is based on the wide age ranges (10 to past 80) in which suicides occur and the relative infrequency of relatives in the study groups below the age of ten. Therefore, it was decided to assign all living relatives a half-weight (i.e., as within the period of risk) and all deceased relatives a full weight (because they had completed the period of risk). The sample sizes were adjusted accordingly.

In Tsuang and Winokur's (1978) abstract of their recent study, they reported on the morbidity risk of alcoholism in the general population. Few studies deal directly with this issue; others disagree about the diagnosis and prevalence of alcoholism. They found:

When the criteria are broadened to include diagnoses of alcoholism "ever made," the risk increases to 6.7 percent (males: 12.0%; females: 1.8%).
(p. 225)

Clark (1966), similarly, estimated "the prevalence of various drinking problems in a general population (to be) 6.2 percent (men 9.5%, women 4.0%)" (p. 668). Tsuang and Winokur's more recent rate of 6.7 percent was utilized as the estimated morbid risk for the general population in the absence of more definite rates. Further, on the basis of age of onset data obtained by Winokur and other associates (1971), it was seen that males become "alcoholic" between ten years of age and 49 (the breakdown is 10 to 19: 32%; 20 to 29: 38%; 30 to 39: 19%; and 40 to 49: 8%); females become "alcoholics" at a slightly later age (the breakdown is 10 to 19: 12%; 20 to 29: 34%; 30 to 39: 33%; and 40 to 49: 14%). For the purposes of this study, and because of the ready availability of adjusted sample sizes which

approximate these risk periods, the adjusted numbers for schizophrenia were utilized (that is, 15 to 40 for males, 15 to 50 for females). More precise analyses of the data on alcoholism in the families may follow in a later investigation. The morbid risks for the three groups of relatives were then calculated and compared as well.

Developmental and Environmental Factors

While reviewing the personal histories of the patients in the borderline group, unusual or abnormal factors in the developmental and early environmental history were recorded. These included arrested or precocious development in some area (e.g., in speech, motor, or cognitive development), early symptomatology (e.g., sleep disorders, temper tantrums, phobias), premorbid adjustment (including personality and peer relations), and losses, separations, and illnesses, to name a few. A more detailed form utilized in the study is provided in Appendix F. After such data collection, particular elements, clusters of factors, and suggestive findings were analyzed in a descriptive way, and as noted earlier, where incidence rates for the general population or Loranger's (1978a; 1978b) groups were available (e.g., suicide, alcoholism, etc.), statistical comparisons and tests of significance were performed.

CHAPTER V

RESULTS

Outcome of Chart Review

Table 1 illustrates the results of the chart review procedure. In order to obtain 50 female non-adoptive patients who satisfied the DSM III requirements for having a Borderline Personality Disorder, 152 charts were read. Barely one-third, then, of the charts with a discharge diagnosis of "Other personality disorders of specified types"--mostly specified as borderline, a few unspecified cases, and

Table 1

Results of Review of Charts of 152 Female Patients
Discharged with the Diagnosis of Other Personality
Disorders of Specified Types, DSM II 301.89

	Year				Total
	1976 (Pilot)	1977 ^a	1978	1979	
Failed to meet DSM III Criteria	6	18	35	3	62
Questionable Cases	2	5	16	6	29
Met DSM III Criteria	0	13	29	8	50
Adopted Patients	0	5	3	3	11
Total	8	41	83	20	152

^aOne sealed chart inaccessible to researcher.

a handful designated as narcissistic, infantile, or sado-masochistic --were diagnosed as having a Borderline Personality Disorder according to the DSM III nomenclature.

The criteria were clearly not met in 41 percent (62) of the cases reviewed. Of these, 59 percent (31) of the patients were discharged within one month of admission, and as a result, limited information was obtained. Another 24 percent (15) of the patients stayed for a period of one to two months. Examination of the number of criteria satisfied revealed the following breakdown: only one criterion was met in 13 of the cases, two criteria were met in 14 cases, three were met in 19 cases, and four were met in five cases. In the remaining 11 cases, none of the criteria were adequately satisfied. Table 2a presents these findings.

Table 2a
Number of Criteria Satisfied in 62 Female Cases
who Failed to Fit the DSM III Criteria

Number of Criteria Met	Number of Patients
0	11
1	13
2	14
3	19
4	5

Nineteen percent (29) of the cases reviewed were considered questionable in terms of their suitability for inclusion in the borderline sample. Table 2b indicates the number of criteria satisfied in this group of patients. Four, with possibilities of five, criteria were met

Table 2b

Number of Criteria Satisfied in 29 Questionable Cases^a

Number of Criteria Met	Number of Patients
4+	16
5	8
5+	5

^aThirteen of these questionable cases satisfy the revised DSM III criteria for Borderline Personality Disorder, and will be incorporated in a projected larger study.

in 55 percent of these cases; five criteria were fully satisfied in 28 percent of these cases; and five, with possibilities of six, criteria were met in 17 percent of these cases. Because of the condition, before the second revision of the criteria, that the patients selected for the borderline sample must unequivocally meet the six criteria, these cases were not included and set aside for later comparisons and investigative work with those patients meeting the five criteria.

Adopted females constituted another seven percent of the total charts reviewed. While these 11 cases were not useful in the determination of any hereditary predisposition to illness, they were also set

aside in order that environmental and developmental influences could be ascertained at a later time.

The remaining 33 percent of the patients reviewed, then, satisfied the DSM III borderline criteria and constitute the borderline sample for this study. The patients in the sample were discharged from the Westchester Division of The New York Hospital during a two-year interval, from March 3, 1977 through March 29, 1979.

Manifestations of Borderline Personality

Disorder in the Sample Group

Fulfillment of at least six of the aforementioned criteria, over a long-term basis, guaranteed inclusion into the borderline sample. At this point, an analysis of what constituted satisfaction of these criteria enables one to better understand the manifestations of the disorder in this sample. Table 3 indicates the number of patients satisfying each particular criterion.

Impulsivity or unpredictability in at least two ways which were potentially self-damaging was found in 98 percent of these borderline patients. More specifically, the majority of these patients were unpredictable or impulsive in their drug or alcohol use and in their acts of physical self-damage. As for the former, abuse of alcohol, medications (including Valium, Darvon, diet-pills, amphetamines, barbiturates, and methadone), illicit drugs (including marijuana and hallucinogens), and multiple drug usage were typically found in these patients. Self-damaging acts included suicide gestures, self-mutila-

Table 3
 Diagnostic Criteria Satisfied in a
 Sample of 50 DSM III Borderline Females

Diagnostic Criteria	Number of Patients Meeting the Criteria
1. Impulsivity	49
2. Unstable and intense interpersonal relationships	44
3. Anger	46
4. Identity disturbance	46
5. Affective lability	49
6. Problems tolerating being alone	8
7. Physically self-damaging acts	43
8. Feelings of emptiness and boredom	24

tion (to be elaborated below) as well as the infrequent incidence of poor self-care, e.g., in the form of poor management of diabetes seen in one patient. Other examples of impulsivity or unpredictability (again of a long-standing nature) include spending sprees, stealing, and the occasional incidents of breaking and entering, and armed robbery. Sexual acting-out took the form of promiscuity, prostitution, extramarital affairs, group sexual activities, and "one night stands," which in many cases led to the need for abortions. Overeating and undereating, including anorexia, were also seen in a handful of these

patients. Compulsive eating and gorging, concomitant with vomiting and starvation, were noted. While gambling was not seen in any of these cases, other manifestations of this criterion included school truancy, running away from home, and in one case, the calling in of bomb scares was seen with several of the other indications.

In 83 percent of the cases, patterns of unstable and intense relationships were documented in the chart material. There was a typical history of marked lifelong difficulty forming and sustaining meaningful and close interpersonal relationships. Intense, transient alliances were the mode as were involvements with superficial or intense and extremely dependent relationships. Stormy relationships with marriage partners and/or parents prevailed. These relationships were alternatively described as "sado-masochistic," "masochistic," "hostile-dependent," "symbiotic," "ambivalent," "destructive," and "chaotic." These patients were often characterized as infantile, dependent, demanding, clinging, and idealizing, self-centered, entitled, overly dramatic, and seductive. Terrified of intimacy, they easily tired of, devalued and rejected others. They were seen as manipulative, as in the way they might get others to pay attention to and care for them. The short, intense quality of their relationships was repeatedly stressed. Their attitudes towards others change quickly; people are seen in terms of black or white, as all good or all bad; and the patient's personality shifts readily.

The presence of the affect of anger, the third criterion, was met in 92 percent of the cases. This was manifested by a history of

hysterical outbursts, temper tantrums, uncontrollable rages, and explosiveness, in some cases resulting in physical assaultiveness and physical damage. Some of these patients "always feel angry." There are notes as to considerable suppressed, underlying rage, which one therapist aptly likened to "a cauldron of unexpressed and terrifying emotion." They are also typically described as hostile, abusive, argumentative, contemptuous and irritable, and in many instances, their enormous rage readily comes to the fore when their "needs are not met."

Identity difficulties surfaced in 92 percent of the sample cases. There were considerable self-esteem and self-image problems manifested by "low self-esteem," "self-contempt," feelings of worthlessness and incompetence. The patients complain of "having no self," "lacking a personality," "no sense of identity," and "no sense of myself as a person." Such statements as "I don't know what I really am," "Who am I, where do I go from here?" and "There was never a me" pervade the records. Not knowing what and who they were or wanted to be, these women needed other people to supply them with identity and values. They could change their personality depending on whom they were with, echoing and identifying with others and developing their lifestyles. They tend to become the other person. They claim they were always what others wanted them to be, having no will, identity, or direction of their own. The confusion about the self extends to other areas of functioning--including their femininity and sexual identification, religious convictions, racial identity, interests, and friendships.

Uncertainty about the future is a major difficulty. "I have no goals," "no direction in life," "no interests, don't know where to live, what work to do" and "where should I go, what should I do?" are common complaints of this sample of patients. Less explicit statements note their "concepts of self and others as vague and fragmented," and "extreme contradictions in self-image" (e.g., grandiose vs. completely abject and worthless).

Affective instability, seen in 98 percent of the sample cases, involved a history of "fluctuating," "labile" moods, and quick and intense mood swings. "Episodic intense depressions," "hysterical episodes," "episodes of rage," "occasional crying spells," and "anxiety attacks" were often ascribed to these women. From a good mood, they might become extremely depressed, or tense and panicky, or irritable and angry.

Difficulties tolerating being alone were only reported in 16 percent of the cases. Dissociative experiences, panic attacks, depressive episodes, and suicidal ideation accompanied the experience and intense fear of being alone.

Physically self-damaging acts, over a long period of time and not confined to a specific period of illness, were reported in 86 percent of the sample cases. Suicidal gestures took the form of overdoses, wrist cutting, drinking poisonous substances, and, in one instance, jumping off a roof. Many of these patients would mutilate themselves by means of burning, scratching, or cutting; others were involved in physical fights with relatives or boyfriends in which they would be-

come quite violent and assaultive. A few provoked others to beat them up. An even smaller number were involved in accidents of a recurrent nature, involving careless driving, running in front of cars, smashing windows, and attempts to rush windows.

A sense of subjective emptiness or boredom was characteristically experienced by 48 percent of the sample members throughout their lives or over long periods of time. Phrases such as "nothing there," "there's nothing inside," "I feel nothing," "empty void," "feels empty and dead," "I don't exist," and "I get bored too fast" epitomize their experience. They feel themselves to be "hollow, empty," existing "in a dead, cold world," where nothing or no one satisfies or interests them. Feeling empty, for many, it is noted, serves as a defense against the intensity and potential destructiveness of their feelings.

Satisfaction of DSM III Schizotypal Criteria

While the charts were examined to determine whether they met the DSM III criteria for a borderline disorder, they were further examined as to their suitability for inclusion in the new DSM III category for Schizotypal Personality. There was not enough information in any of these charts (including questionable and excluded cases) to warrant a diagnosis of Schizotypal Personality Disorder, and thus, a separate sample group was not obtained. One reason for this might be the great number of short hospital stays, and insufficient observations and history-taking. The difficulty in satisfying the diagnostic criteria might well be a second reason. The criteria, "odd communication" and

"inadequate rapport," must, like the others, be characteristic of the patients' long-term functioning. Often, however, these are only observations and inferences gained from mental status examination, and there is little evidence to allow one to conclusively generalize these to the patients' functioning over a long period of time.

Nevertheless, certain criteria in the schizotypal diagnostic category were met in both the non-borderline, and more so, in the borderline groups. Of the 50 patients in the latter, at least 46 percent (23) were reported to have had a history of feelings of depersonalization and/or feelings of derealization. One of these 23 patients, and yet another, experienced recurrent illusions. The presence of feelings and episodes of depersonalization, and less often, derealization, is a feature of these patients which is not adequately accounted for in the borderline category.

Furthermore, in 26 percent (13) of these patients, a history of social isolation was reported. Suspiciousness or paranoid ideation was a characteristic of 16 percent (8) of these females. Ideas of reference or self-referential thinking was reported in 12 percent (6). Undue social anxiety, or hypersensitivity to real or imagined criticism, was noted in ten percent of the total borderline group. Comments about tangential and circumstantial speech, constricted or inappropriate affect, aloofness, distance, superficiality, and magical thinking were made for an insignificant number of isolated cases. As mentioned above, there was little available to substantiate that these were characteristic of the individual's functioning over an extended

period.

For the group of 29 designated as questionable borderline cases (4+ to 5+ criteria satisfied), 21 percent (6) were seen as socially isolated, an equal percentage experienced feelings of depersonalization and/or derealization, 18 percent (5) were seen as suspicious or having paranoid ideation, and an equal number manifested undue social anxiety and hypersensitivity to criticism. Even smaller numbers experienced referential ideas, and manifested odd communication or inadequate rapport.

Of the 62 patients who were excluded from the sample, 19 percent (12) had a history of social isolation, 18 percent (11) were suspicious or had paranoid ideation. At least eight percent (5) experienced feelings of depersonalization. Other than these, there were isolated indications of odd speech, inappropriate affect, and inordinate social anxiety and sensitivity.

From this analysis, one can discern the relative independence of the two diagnostic categories, Borderline and Schizotypal Personality Disorders. However, there are some areas of overlap, including experiences of depersonalization and derealization, and to a lesser extent, histories of social isolation, suspiciousness or paranoid ideation, and referential thinking.

Demographic Characteristics of the Borderline Sample

Hospital Stay

The borderline sample consisted of 50 female patients dis-

charged from the Westchester Division of The New York Hospital between March 3, 1977 and March 29, 1979. The length of stay in the hospital ranged anywhere from 15 days to 587 days with the mean length of stay at 167.1 days. There was great variability in the number of days spent in the hospital during their last admission (S.D. = 151.9 days), as seen in Table 4 below.

Table 4

Length of Stay during Last Hospital Admission
of the 50 Female Patients in the Borderline Sample

Number of Days in Hospital	Number of Patients
< 30	6
31 to 60 (1 to 2 months)	8
61 to 120 (2 to 4 months)	11
121 to 180 (4 to 6 months)	10
181 to 365 (6 to 12 months)	9
> 365 (> 1 year)	<u>6</u>
	N = 50

Age of Patient and Age of Onset of Disorder

Table 5 contains the means and standard deviations of the present ages and ages of onset of psychological difficulties (based on initiation of treatment) in the 50 females. The ages of the 50 females during their last New York Hospital admissions ranged from 13 to 45 years

Table 5
Means and Standard Deviations of Ages at
Last Admissions and of Ages of Onset of
Psychological Difficulties in 50 Borderline Females

	Mean	S.D.
Last Hospitalization	23.9	7.9
First Treatment ^a	19.8	7.4
First Hospitalization	22.7	7.9

^aOne patient received first treatment "in early 20's." This was estimated by this investigator to be at age 22.

of age, with the mean age at 23.9 years of age, with a standard deviation of 7.9. The most frequently represented age was 17, with six patients admitted at this age. The median age was 23.

The range of ages at which treatment (outpatient or inpatient) was first introduced was from seven years of age to 38 years of age. The mean age for initial treatment was at 19.8 years of age, with a standard deviation of 7.4. Treatment was most frequently initiated at age 15 (7 cases), and then at age 18 (5 cases). The median age for first treatment was 18.2 years.

The ages at which these patients were first hospitalized in a psychiatric setting range from 13 to 43 years of age. The mean age at first hospitalization was 22.7, with a standard deviation of 7.9. The median age was 20.8. These patients were most often first hos-

pitalized between the years 14 to 17 and 20 to 21. See Table 6 for the cumulative frequencies for age of onset, and Figure 1 for further illustration of these findings.

Table 6
Cumulative Frequency Table for Present Age and Age of
Onset of Borderline Personality Disorder in 50 Females

Age Interval	First Treatment	First Hospitalization	Present Hospitalization
5-9	2	0	0
10-14	11	5	3
15-19	31	22	18
20-24	38	33	30
25-29	41	38	37
30-34	49	46	45
35-39	50	49	48
40-44		50	49
45-49			50

For 40 percent (20) of the patients, this was their first psychiatric admission. This number includes those patients who were transferred from another facility and where continuous care was provided. For 24 percent (12) of these patients, the present hospitalization constituted their second admission. Eighteen percent (9) of

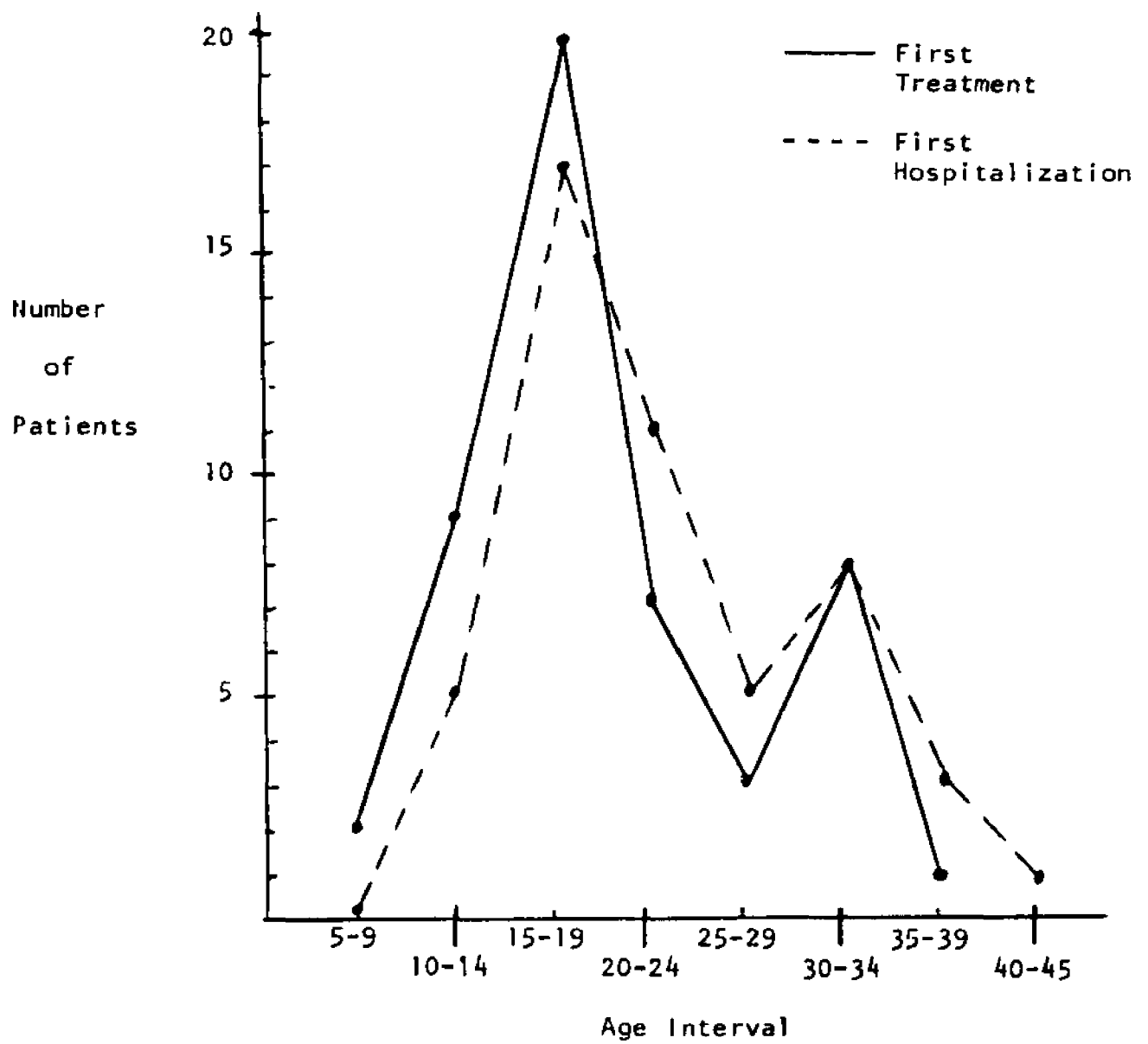


Figure 1. Frequency of first treatment and first hospitalization at each age quinquennium.

the patients were admitted for a third time and an equal number had been hospitalized four or more times in a psychiatric unit or facility.

Ethnic Background

Of the 50 females in the sample, 48 were Caucasian, one was Black, and one was Puerto Rican.

Place of Birth

The patients in the borderline sample came primarily from the urban and suburban communities in the metropolitan New York City area and a few from other areas of New York State. Of the 50, 66 percent (33) were born in New York State. Another 16 percent (8) were born in nearby states in the northeast (New Jersey, Connecticut, Pennsylvania, and Massachusetts). Other areas of the United States (including Ohio, South Carolina, Indiana, Texas, Iowa, and Washington) were represented by 12 percent (6) of the sample group. The remaining six percent were foreign born (including three patients born in Pakistan, Norway, and Germany).

Religious Affiliation

The sample group differs markedly from the general population in religious affiliation. The largest group represented was Roman Catholic (54%). There was an excess of Jews (24%) and an underrepresentation of Protestants (16%). The remaining six percent declared no religious affiliation.

Marital Status

The majority of the 50 females in the sample were unmarried at the time of this last hospital admission. Of these, 68 percent had never been married, eight percent were separated from their husbands, and 16 percent were divorced. Only eight percent were married. Clearly, however, the low mean age of the sample (23.9 years) may account for the large number of single women.

Social Position

The social positions of the patients in the sample were calculated by means of the Hollingshead (1957) two factor index. Using education and occupation, these patients mostly (74%) belonged to the lowest Social Class V. Twelve percent belonged to Social Class IV, ten percent to Social Class III, and two percent to Social Class II. (The social position of one patient could not be determined.) These findings must be considered spurious in light of the ages of these individuals, in addition to the large number (87%) who were unemployed because of their studies (37%), homemaking duties (10%), or who were simply unemployed (40%), possibly due to the reality of their difficulties.

Looking at their educational attainments separately, it was observed that none of the patients in the sample completed graduate training and only 12 percent had a college education. Another 24 percent had received partial college training; 16 percent graduated from high school; 28 percent did not complete high school (that is, had only completed the tenth or eleventh grades); 16 percent were in

junior high school; and one patient had only completed the sixth grade. The educational level of one patient was unavailable.

Examination of the fathers', or heads' of households, occupations shed some more light on the socioeconomic status of this patient group, although in many cases (22%), the information was not reported, possibly as a result of the fathers' absence from the family. Information about fathers' formal schooling was not available. Based on the Hollingshead Occupational Scale, the majority of these patients came from a background of higher social position. In 18 percent of the cases, the fathers' occupations were highest (1) on the scale (including higher executives, large proprietors, and major professionals). Business managers, proprietors of medium sized businesses and lesser professionals (2) were seen most often in the families of these patients (26%). In 16 percent of the cases, the fathers were administrative personnel, small business owners, and semi-professionals (3). Eighteen percent of the families were headed by fathers who were skilled manual employees (5), semi-skilled (6), and unskilled (7) workers (8%, 8%, and 2%, respectively). Of those families where the mother was the head of the household, the little information available indicated their occupations to be more toward the middle of the scale, which included administrative personnel and minor professionals (3) and clerical workers and technicians (4).

Psychopathology in the Family Members

Table 7 indicates the number of immediate relatives (including

natural parents and full siblings) of the 50 female borderline patients, as well as the number who have, at some time or another, received out-patient or inpatient psychiatric care.

Table 7

Number of Immediate Relatives of 50 Female Borderline Patients and Prevalence of Psychiatric Treatment

	Absolute Number of Relatives	Number in Treatment
Mothers	50	17
Fathers	50	11
Total Natural Parents	100	28
Sisters	48	10
Brothers	56	15
Total Siblings	104	25
Total Relatives	204	53

In 44 percent of the families of the index borderline patients, there was no history of psychiatric treatment. In the remaining 56 percent, one or more of the family members were, or had been, involved in some form of psychiatric treatment. Further examination of the chart material led to the categorization of these relatives on the

basis of the form of treatment (outpatient or inpatient) in addition to possible indications for psychiatric difficulties and the need for intervention. Table 8 presents these findings.

Table 8
Psychiatric Status of 204 Immediate
Relatives of 50 Female Borderline Patients

Category	Natural Parents		Full Siblings		Total
	Mothers	Fathers	Sisters	Brothers	
I. Normal, without any history of psychiatric treatment and no detectable disorder	10	10	31	29	80
II. Impaired, without any history of psychiatric treatment, yet evidence for psychiatric disorder	23	29	7	12	71
III. Outpatient Treatment--Current or Past	12	7	6	11	36
IV. Inpatient Hospitalization--Current or Past	5	4	4	4	17
	50	50	48	56	204

Of all the 53 relatives in categories III and IV, only four of the mothers aroused suspicion of a major psychotic illness. Of these,

three were hospitalized at some time. After as much information as possible was obtained about their symptoms and course of illness, it was determined that one mother had a clear bipolar affective illness and a second had a unipolar affective disorder. The hospital records of the first mother were examined by a colleague at that institution, and the diagnoses entertained during her three hospital admissions included manic-depression and schizoaffective schizophrenia. The colleague found no evidence in the charts to support a diagnosis of schizophrenic illness, but was able to identify many characteristics which satisfied the criteria of a manic disorder according to the new DSM III. The chart of the second mother was obtained from Payne Whitney Clinic and examined. This patient fit the newly proposed criteria for a unipolar affective illness, or depressive disorder. There was an indefinite case of manic-depressive illness in the third mother. She had been diagnosed as such while she was hospitalized at another facility, but her daughter's present therapist was unable to document whether there were distinct manic episodes. The fourth mother, seen in outpatient treatment, was described by the treatment team as a "chronic psychotic" and "schizophrenic" woman, who "functioned marginally," lived a very "withdrawn and isolated" existence, "drinks heavily," and was extremely "out of touch...in her own world." This mother was designated as an uncertain schizophrenic. There was not enough information available (e.g., delusions or hallucinations) to suggest schizophrenia according to the DSM III definition.

Of the remaining family members who had been treated, none were

Table 9

Absolute Sample Sizes and Sample Sizes Corrected for Age (Number at Risk)
of 204 Immediate Relatives of 50 Borderline Females

	Absolute Number	Adjusted Sample Size: Bipolar Affective Illness (15-60)	Adjusted Sample Size: Unipolar Affective Illness (15-70)	Adjusted Sample Size: Schizophrenia (Females: 15-50; males: 15-40)	Adjusted Sample Size: Neurosis & Personality Disorder (15-40)	Adjusted Sample Size: Suicide (0-Death)	Estimated Adjusted Sample Size: Alcoholism (Females: 15-50; males: 15-40)
Sisters	48			21.5			
Brothers	56			26.5			
Siblings	104	47.5	47.5	48	58.5	52.5	48
Mothers	50			39.5			
Fathers	50			48.5			
Parents	100	61.5	54	88	96.5	54.5	88
Total	204	109.0	101.5	136.0	155.0	107.0	136

diagnosed or presented the symptomatology indicative of a major psychotic illness. The reasons for their treatment, that is, their psychological difficulties, will be explored later.

The morbid risks of treated affective disorders and schizophrenia in the 204 relatives of the study population were then calculated. Table 9 presents the results of the corrections made for age and period of risk for each of the different illnesses or disorders as well as for suicide.

Table 10 presents the morbid risks of treated affective and schizophrenic illnesses (using certain cases based on DSM III criteria) in the families of the borderline patients. The risks based

Table 10

Lifetime Expectancy (Morbid Risk) of Treated Affective Disorders and Schizophrenia (Diagnosis Strictly Based on DSM III Criteria) in 204 Immediate Relatives of 50 Female Borderline Patients^a

	Number at Risk	Treated	Morbid Risk
Bipolar Affective Illness (Mania)	109	1 (2) ^a	.92 (1.83) ^a
Unipolar Affective Illness (Depression)	101.5	1	.99
All Affective Disorders		2 (3) ^a	1.91 (2.82) ^a
Schizophrenia	136	0 (1) ^a	.00 (0.74) ^a

^aIncludes uncertain cases in which less stringent criteria and professional opinion were relied upon.

on uncertain cases as well are provided in parentheses.

Table II contains the morbid risks, or frequency, of affective disorders and schizophrenia in the families of the borderline group, in addition to the rates reported by Loranger (1978a; 1978b) for the relatives of the comparison groups.

Hypothesis 1: Prevalence of Major Psychotic Illnesses

Hypothesis A

As hypothesized, when the rate of schizophrenia in the families of the borderline group (0%) was compared with the general population value of 1.17 percent (SE = .0187), no significant differences were found ($Z = .63$; $p = .53$). Even when the uncertain case was included, the rate (.74%) was not significantly different from the rate in the general population ($Z = .22$; $p = .83$).

Hypothesis B

Contrary to expectations, when the rate of schizophrenia in the borderline relatives was compared to that in the relatives of the schizophrenic patients, no significant differences were found as well. In these samples of relatives of schizophrenics, however, the morbid risks (100 SZ:MR = 1.42%; 200 SZ:MR = 2.15%) for schizophrenia were unusually low and also not significantly different from the general population (100 SZ:Z = .13; $p = .9$; 200 SZ:Z = .5; $p = .6$).

When the families of the borderlines were compared to the families of 100 female schizophrenic patients, no significant difference

Table 11

Morbid Risk of Treated Affective Disorders and Schizophrenia (Certain Cases)
in the Immediate Relatives of Borderline, Manic-Depressive, and Schizophrenic Patients^a

	204 Relatives of 50 Border- line Females (B)	540 Relatives of 100 Manic- Depressive Females (100 MD)	1,098 Relatives of 200 Manic- Depressive Males and Fe- males (200 MD)	476 Relatives of 100 Schiz- ophrenic Fe- males (100 SZ)	904 Relatives of 200 Schiz- ophrenic Males and Fe- males (200 SZ)
Bipolar Affective Disorder	.92 (1.83) ^b	3.51	3.98	0.00	0.19
Unipolar Affec- tive Disorder	.99	6.39	5.95	1.18	1.71
All Affective Disorders	1.91 (2.82) ^b	9.90	9.93	1.18	1.90
Schizophrenia	0.00 (0.74) ^b	0.00	0.64	1.42 (2.84) ^b	2.15 (4.00) ^b

^aMorbid risk data for relatives of manic-depressives and schizophrenic patients are based on Loranger's (1978a; 1978b) research and reprinted with his permission. The data for schizophrenics are in the process of being recalculated, and may change slightly. These new rates were not available for the purposes of this investigation.

^bIncludes uncertain cases.

in the prevalence of schizophrenia was found ($Z = 1.41$; $p = .16$), as was the case when they were compared to the larger sample of relatives of 200 schizophrenics of both sexes ($Z = 1.72$; $p = .09$). In other words, even though there were no certain cases of schizophrenia in the relatives of the borderline patients, the risk was not significantly less than that for the families of schizophrenic patients.

Similarly, when the uncertain schizophrenic cases are included in the statistical comparisons, no significant differences were found. The rate of uncertain schizophrenia in the relatives of the borderlines was not significantly different from that of the general population, as noted above. Furthermore, this rate was not significantly different from that of the relatives of 100 female schizophrenics ($Z = 1.4$; $p = .16$) or from that of the relatives of 200 schizophrenics of both sexes ($Z = 1.45$; $p = .147$). As can be seen, the statistical values suggest that the comparisons, particularly with the larger samples, approach, but do not reach, significance.

Hypothesis C

The likelihood of bipolar or unipolar disorders in the relatives of the borderline patients is not significantly greater than that for the general population. When the risk for all affective disorders in the relatives of borderlines (1.91%) is compared to that for the general population (1%), no significant differences were found ($Z = .54$; $p = .59$). When the uncertain case of mania is included (raising the risk to 2.82), the difference is greater but does not reach significance ($Z = .95$; $p = .34$).

Similarly, the likelihood of a bipolar manic-depressive illness in these relatives (.92%) is not greater than that for the overall population (crudely estimated at .3%) ($Z = 1.03$; $p = .3$). When the estimate for the general population is lowered to .1 percent, an insignificant difference between the risks remains. However, when the uncertain case of a manic disorder is included in the comparisons, the likelihood of a bipolar illness in the relatives of borderlines is significantly greater ($Z = 2.25$; $p = .024$). On the other hand, the risk for a unipolar disorder in these families is not significantly higher than in the general population ($Z = .33$; $p = .74$).

Hypothesis D

While the morbid risks for manic-depressive illness in the relatives of 100 manic-depressive females (MR = 3.51%) and of 200 manic-depressive patients of both sexes (MR = 3.98%) are larger than that for the relatives of the borderline sample (MR = .92%), these differences are not statistically significant ($Z = 1.41$; $p = .16$ when the borderline relatives are compared with the relatives of 100 manic-depressives; $Z = 1.59$; $p = .11$ when the larger sample is employed).

When the uncertain case of manic-depressive illness is included in the comparisons, increasing the morbid risk for borderline families to 1.83 percent, the difference in the rate of affective illness between the families of borderlines and manic-depressives is even more insignificant ($Z = .88$; $p = .38$ when the relatives of the borderline patients are compared with the relatives of the 100 manic-depressives; $Z = 1.1$; $p = .27$ when the larger sample of relatives of

manics is employed). In any event, these results reveal that the morbid risk for a treated bipolar affective illness in the borderline families, while lower, is not significantly different than the morbid risk in the families of manic-depressive patients.

On the other hand, the morbid risk for a unipolar affective, or depressive, disorder in the families of the manic-depressive groups was significantly greater than that in the families of the borderlines. The relatives of the 100 female manic-depressives had a significantly higher risk ($Z = 2.14$; $p = .03$), as did the relatives of the 200 manic-depressives of both sexes ($Z = 2.07$; $p = .04$), than the relatives of the borderline patients.

Further, the risk for any affective disorder, either unipolar or bipolar, is significantly less in the relatives of the borderline patients than in the relatives of 100 manic-depressive females ($Z = 2.63$; $p < .01$) and than in the relatives of 200 manic-depressive males and females ($Z = 2.69$; $p < .01$). Even when the uncertain case of bipolar illness is added to the sample of borderline relatives, the risk for the latter remained significantly less (with 100 MD: $Z = 2.31$; $p = .02$; with 200 MD: $Z = 2.40$; $p = .016$).

Hypothesis E

As there were no patients who fully satisfied the criteria for a Schizotypal Personality Disorder, this hypothesis could not be tested. Perhaps, if patients were drawn from those discharged with the diagnosis "Schizophrenia, latent type, DSM II 295.5," a sample of these patients could have been compiled and available for study.

Psychopathology in the Parent and Sibling Groups

Morbid risks for affective disorders and schizophrenia were also computed for the separate parent and sibling groups. Such morbid risk data for the relatives of the borderline parents are presented in Table 12.

Table 12
Morbid Risk of Treated Affective Disorders
and Schizophrenia in 100 Parents and
104 Siblings of 50 Borderline Females

	Number at Risk	Treated	Morbid Risk
<u>Parents</u>			
Bipolar Affective Disorder (Mania)	61.5	1 (2) ^a	1.63 (3.25) ^a
Unipolar Affective Disorder (Depression)	54	1	1.85
All Affective Disorders		2 (3) ^a	3.48 (5.10) ^a
Schizophrenia	88	0 (1) ^a	0.00 (1.14) ^a
<u>Siblings</u>			
Bipolar Affective Disorder (Mania)	47.5	0	0.00
Unipolar Affective Disorder (Depression)	47.5	0	0.00
All Affective Disorders		0	0.00
Schizophrenia	48	0	0.00

^a Includes uncertain cases.

Table 13 combines these results with those of Loranger's (1978a; 1978b) studies of families of 200 manic-depressives and 200 schizophrenics.

Table 13
Morbidity Risk of Treated Affective Disorders and
Schizophrenia in the Parents and Siblings of Borderline,
Manic-Depressive, and Schizophrenic Patients^a

Parents	100 Parents of 50 Bor- derline Females	400 Parents of 200 Manic-De- pressive Males and Females	400 Parents of 200 Schizophre- nic Males and Females
Bipolar Affective Illness (Mania)	1.63 (3.25) ^b	3.02	0.35
Unipolar Affective Illness (Depression)	1.85	7.96	2.96
All Affective Disorders	3.48 (5.10) ^b	10.98	3.31
Schizophrenia	0.00 (1.14) ^b	0.53	1.87 (2.68) ^b
Siblings	104 Siblings of 50 Bor- derline Females	433 Siblings of 200 Manic-De- pressive Males and Females	444 Siblings of 200 Schizophre- nic Males and Females
Bipolar Affective Illness (Mania)	0.00	5.86	0.00
Unipolar Affective Illness (Depression)	0.00	3.63	0.47
All Affective Disorders	0.00	9.49	0.47
Schizophrenia	0.00	0.65	1.99 (5.17) ^b

^a Figures for relatives of manic-depressives and schizophrenics based on Loranger's (1978a; 1978b) research and reprinted with his permission.

^b Includes uncertain cases.

Statistical analyses generally confirmed the non-significant findings from the analysis of the combined groups. The prevalence of schizophrenia in the parents and siblings of borderline patients did not differ significantly from the prevalence of schizophrenia in the respective groups related to schizophrenics (for the parent groups: $Z = 1.29$; $p = .2$; for the sibling groups: $Z = .98$; $p = .33$). This was true when uncertain cases were included as well (parents: $Z = .99$; $p = .32$; siblings: $Z = 1.61$; $p = .11$).

The rate of bipolar affective illness in the parents of borderlines was not significantly different than the rate in the parents of the manic-depressives ($Z = .61$; $p = .54$). This was true for the sibling groups as well, although there was a tendency, though insignificant, for the rate to be higher in the siblings of the manic-depressive patients ($Z = 1.7$; $p = .09$).

The difference in risk for a unipolar affective disorder approached, but did not reach, significance when the parents and siblings of the borderlines were compared with the respective relatives of manic-depressives (for the parent groups: $Z = 1.62$; $p = .10$; for the sibling groups: $Z = 1.33$; $p = .18$). The small numbers in the samples may have accounted for this, and thus, hypothesis testing was based on the larger, combined group.

Hypothesis II: Prevalence of Other Psychiatric Illness

Aside from the two certain and two uncertain cases of major psychotic illnesses identified earlier, many of the family members

were treated, in inpatient or outpatient settings, for other disorders. On the basis of material gathered, including diagnostic impressions from the treatment team, an inference was made about each treated relative as to whether they were treated for a neurosis or personality disorder. The results are found in Table 14.

Table 14
Treated Mental Disorders in 204 Immediate
Relatives of 50 Borderline Females

	Neurosis or Personality Disorder	? Inpatient Diagnosis	? Outpatient Diagnosis	Major Psychotic Disorders	Total Treated
Mothers	13	1	1	2	17
Fathers	10	0	1 ^a	0	11
Sisters	8	1	1	0	10
Brothers	9	2	4	0	15
	—	—	—	—	—
Total	40	4	7	2	53

^aFather suffered organic brain damage as a result of an automobile accident, had been in treatment for "intense depression and bisexuality" prior to accident.

These findings are presented in Table 15 along with Loranger's (1978a) findings of other treated disorders (and suicide) in the families of manic-depressive and schizophrenic patients.

Table 15
 Suicide and Other Treated Mental Disorders
 in the Immediate Relatives of 50 Borderline,
 200 Manic-Depressive, and 200 Schizophrenic Patients^a

	204 Relatives of 50 Border- lines	1,098 Relatives of 200 Manic- Depressives	904 Relatives of 200 Schiz- ophrenics
Suicide	1	14	0
Neurosis or Personality Disorder	40	18	28
Inpatient Diagnosis ?	4	17	13
Outpatient Diagnosis ?	7	15	14

^aFigures based on Loranger's (1978a) research and reprinted with his permission.

The period of risk for a neurosis or personality disorder was estimated to be 15 to 40 years of age, and the sizes of each sample of relatives were adjusted accordingly. The computed morbid risks are summarized in Table 16.

It can be seen that more than one-fourth of the relatives at risk in the borderlines' families have been treated for what appears to be neuroses or personality disorders. And, the morbid risk for these difficulties is significantly greater in the relatives of the borderline patients, than it is in both the relatives of the 200

Table 16

Morbid Risk of Treated Neurosis or Personality Disorders
in 204 Relatives of 50 Borderlines, 1,098 Relatives of
200 Manic-Depressives, and 904 Relatives of 200 Schizophrenics^a

	Number at Risk	Number Treated	Morbid Risk
Borderline	155	40	25.81
Manic-Depressive	825	18	2.18
Schizophrenic	658.5	28	4.25

^aFigures based on Loranger's (1978a) research and reprinted with his permission.

manic-depressives ($Z = 11.07$; $p < .0001$) and the relatives of the 200 schizophrenics ($Z = 8.72$; $p < .0001$). High levels of significance were reached, and thus, Hypothesis II was confirmed.

In fact, even higher levels of significance would have been reached. The numbers at risk for manic-depressives and schizophrenics are slightly underestimated because it was impossible to determine, at this time, the ages of the treated relatives and whether, in fact, they had only been assigned a half-weight. If there were treated relatives who had not completed the period of risk, and thus earn a weight of 1 rather than .5, the number at risk would increase, and the morbid risk would subsequently decrease.

Personalities of the
Mothers of the Borderline Patients

As can be seen from Table 8, there was no evidence to suggest psychological difficulties in 20 percent of the mothers of this group. A history of psychiatric treatment was reported in 34 percent of the cases; ten percent of all the mothers had been hospitalized for psychiatric reasons. The remaining 46 percent, while without a treatment history, were seen as having some sort of psychological difficulties, possibly of neurotic or characterological proportions, and as women who might derive some benefit from therapeutic intervention. These difficulties and personality characteristics will be enumerated below.

The personality characteristics and styles of relating of the mothers were based on both the patients' reports and clinicians' observations. Two mothers had died during the patients' youth, and for several others, limited, if no, information was available. In collating and examining the material for the remaining cases, four features stood out markedly. These included the mothers' emotional unavailability and defect in empathy for their children's needs, the mothers' own infantile, dependent longings and narcissistic needs, their difficulties accepting and approving of the child as she is, as opposed to what she was expected to be, and their marked affective lability.

As for the first, at least 38 percent (19) of the mothers were clearly described as being "unaffectionate," "emotionally unavailable," "emotionally distant," "detached," "unemotional," "cold," and "undemon-

strative." The patients reported "never (having) felt close to (their) mother," and never feeling nurtured or supported. It was further reported and observed that these mothers were often unable to give the patients any love, affection, or attention, but rather ignored and neglected them, and were quite insensitive to and unaware of their children's feelings and needs. One mother, it was noted, frequently told the patient that she didn't want children and wished she and her brother were dead. Three others stated clear preference for one of the patients' siblings.

Rather than being able to adequately care for and relate to their child, these mothers are often described as "narcissistic" (11 mothers), "highly dependent" (6 mothers), "infantile" (6 mothers), and "masochistic" (3 mothers). "Borderline" pathology or structure was suspected, by the treatment team involved, in at least five of these mothers, and "severe character problems" noted in several more. Descriptively, these mothers were seen as being extremely "self-involved" and "egocentric," so wrapped up in themselves and their own problems that they have little left for the patient. In fact, one mother was described as finding the patient "an intrusion into her life," another treated the patient "as a narcissistic extension of herself," and a third complained bitterly that the patient was "insufficiently concerned about her well-being." Several mothers were described as quite dependent, and infantile, in the usurping of the child's place in the house (which left the child feeling like she was doing the parenting), and in their extreme "reliance on the lives of others for (their)

nurturance." Four mothers, in particular, were seen as hypochondriacal and somaticizing. Nine were enmeshed in seemingly destructive relationships with their daughters, for example, in "hostile-dependent," "symbiotic" and "sibling-like relationships," and had difficulties tolerating and accepting the daughters' separation from them.

Eight of the borderline patients experienced their mothers as severely critical, disapproving, unaccepting, and rejecting. These mothers often voiced high expectations and had difficulty accepting their daughters for what they were. One mother, for example, would lash out at the patient if she didn't do things the way she (the mother) wanted. At least ten of these mothers were described as "controlling" or "domineering" in the family.

Marked emotional lability was seen on the part of many of these mothers. Considerable anxiety and tension (documented for 9 mothers), feelings of depression, often of a characterological nature (in 7 mothers), and proneness to anger and rages (in 7 mothers) were paramount. One was seen as continually "upset, angry, or depressed." Three others would tend to "feel rather overwhelmed" and eight were seen as quite unstable, becoming quite emotional, yelling or screaming at the slightest provocation or any hint of criticism. At the same time, there were those mothers who were frightened by any expression of emotion, particularly anger, hostility, and disagreement.

Furthermore, but with less frequency, several mothers of the borderline patients were seen as having difficulties with impulse control. One mother has made suicide attempts, six have drinking

problems, and at least three have physically abused their children.

Marital conflicts were clearly documented for 20 percent (10) of these mothers. In addition to the above, smaller numbers of mothers (that is, anywhere from one to five) were described as self-sacrificing and martyr-like (4), vulnerable (1), hypersensitive (2), passive-dependent (1), passive-aggressive (1), paranoid (1), suspicious (1), phobic (1), intrusive (5), demanding (2), overinvolved (1), interfering (1), engulfing (1), overprotective (4), unpredictable (1), and rigid and compulsive (2).

While these last characteristics might be applied to anyone in varying degrees, there is a constellation, or pattern, of attributes specific to the mothers of the patients in this group. To enumerate: emotional unavailability and detachment, narcissistic and infantile character pathology, an inability to empathize with and accept and support the child, marked emotional lability (including feelings of anxiety, depression, and rage), and, to a lesser extent, impulsivity, are the cardinal features of this group of mothers.

Personalities of the Fathers of the Borderline Patients

As illustrated in Table 8, and akin to the sample of mothers, there was no history of psychiatric treatment nor indications of psychological difficulties in 20 percent of the fathers. While 22 percent were treated psychiatrically (8% as inpatients¹), the majority

¹It was later revealed, by one therapist, that one of the fathers was hospitalized only overnight following a manipulative suicide gesture. This hospitalization was seen as unnecessary.

(58%) received no treatment, but there were clear indications for psychiatric and personality difficulties.

Just as a specific configuration readily encapsulated the data about the mothers, several features amassed to describe many of the fathers of the patients in the borderline sample. Two of the fathers died during the patient's early years; another seven, in a sense, abandoned the family during the patient's childhood, and were never heard from since.²

The most striking finding, for the remaining fathers, was the preponderance of alcoholics. Both rehabilitated and current alcoholics constituted 36 percent of the sample of all the fathers. Along with this, difficulties in the expression and modulation of angry feelings were noted in 30 percent of the fathers, as was their punitiveness (10%) and potential for physical abuse (32%). Like their wives, several of the fathers were seen as unavailable or absent, or distant and uninvolved (26%), and "unable to relate on a feeling level" (18%). A handful were clearly depressed (16%), psychopathic (10%), and a substantially smaller number (6%) were described as narcissistic or self-centered.

Aside from, but perhaps along with, the prevalence of alcoholism, the great difficulty handling and controlling angry feelings was the next foremost characteristic. These fathers were typically described as having "explosive tempers" and "violent angry outbursts" when pro-

²One of the patients was illegitimate; her father left her mother during the latter's pregnancy.

voked. They are "easily enraged," "can unexpectedly blow up" and "would often yell and scream when drunk." One father was described as either "controlled or explosive or absent." Raging, angry men, they often were intimidating and frightening to their children.

A fair number of these fathers were described as quite punitive and physically abusive (16), or as strict authoritarians (5). More specifically, they were seen as "brutal," "harsh," "cruel and vicious," "rigid" and "controlling," and often as extremely restrictive, severe, and violent with the children.

When they are not angry, they are often distant and unavailable. Many were often absent from the home when the patients were young, either because of their careers or other extrafamilial pursuits, and therefore they had little role in the family and little contact with the children. Others were described as "distant," "uninvolved," "rejecting" (8), and "unable to relate on a feeling level" (9). The patients would describe their fathers as having difficulty expressing feelings in the family, particularly loving and affectionate feelings. Some "rarely demonstrated love or approval," "never show(s) affection," have an "incapacity to attend to soft feelings," and are hard to get close to. They're cold, withdrawn, sometimes demanding and disapproving of their children.

Eight of the fathers were described as being severely depressed. Of these, three had made some suicidal gestures or had suicidal ideation. Another four, independent of any averred state of depression,

threatened or attempted suicide, and one father actually committed suicide by hanging when the patient was four years of age. In all, five fathers had made actual suicide gestures, and one, a completed suicide. A few others expressed feelings of inadequacy and failure in their lives.

Another group of fathers (5) were clearly described as having sociopathic tendencies or manifesting psychopathic behavior. Two fathers were imprisoned; three fathers were said to have been involved in cases of sexual abuse (including sexual molestation of 13 and 14 year old students in one case, and even their own children in another), two fathers were said to be gamblers, who lied, manipulated and enjoyed the "fast life," and four were involved in extramarital affairs.

Only three fathers were described by the patient or worker with more positive tone and feeling. One was seen as "sensible, honest, intelligent, trustworthy, very responsible" albeit a "tight ass and a bastard...strict authoritarian, an army man." Another was seen as an "extrovert, ambitious, dedicated to work, overambitious as father." The third father was described by his daughter as a "good person, warm, sweet, progressive and fair with the whole family, understanding, assertive and stubborn." Other adjectives used rather sparingly to describe the fathers in the sample included: "charismatic" (1), "forceful" (3), "passive" (3), "irresponsible" (1), "unreliable" (1), and "inconsistent," "unpredictable," and "unstable" (3). One father was struggling with "bisexuality," another with longstanding problems

with "impotence."

In all, though, several features of many of the fathers of the borderline women in this sample emerged from the chart material. These included considerable alcohol abuse, marked difficulties in the expression and modulation of aggressive impulses and feelings, as well as in the allowance and expression of tender and loving feelings, severe punitiveness and abusiveness, and less often, depressive feelings, suicidal tendencies, and psychopathic leanings.

The Siblings of the Borderline Patients

There was relatively little information in the charts about the siblings of the sampled patients in comparison with that relevant to the parents. In fact, for 46 percent of the brothers (26 brothers) and 52 percent of the sisters (25 sisters), only identifying information (that is, name, sex, age, and educational or occupational status) was available. While this dearth of family data may accrue from poor history taking, one might assume that there weren't any noteworthy difficulties or characteristics to report.

As recorded in Table 8, there was no evidence in the charts to suggest the presence of any psychological difficulties in 65 percent of the sisters, 52 percent of the brothers, and 58 percent of the total sibling population. Obviously, based on the mean age of their ill sisters, many of the individuals in this group are young, and have not reached or passed through the periods of risk for many severe illnesses. Psychological difficulties were noted in the remaining

35 percent of the sisters, 48 percent of the brothers, and 42 percent of the total sibling population.

Of the "ill" siblings, as noted earlier, eight percent of the sisters (4 sisters), and seven percent of the brothers (4 brothers) were psychiatrically hospitalized. However, none of these were or could be considered as suffering from a major psychotic illness. Of the four sisters, one, aged 30, was hospitalized as a result of a psychotic episode following drug ingestion, and the therapist postulated that it was more likely a psychotic decompensation in a borderline personality. Another, presently 21, was described as an acting out adolescent, with multiple pronounced suicide attempts and problems with alcoholism, suggesting to the therapist, a "borderline diagnosis." The third, currently 23, was hospitalized at age 18, at the Westchester Division, and discharged with the diagnosis of "personality disorder with hysterical and obsessive features" based on the anxiety, suicidal rumination, self-doubt, obsessive thoughts about being raped and having sinned, and guilt about sexual feelings and experiences. There was no information available about the fourth sister, although it was believed she, at 17, had difficulty adjusting to college. In all, though, three of the four sisters who were hospitalized were seen as having characterological, possible borderline, pathology. Similarly, the six in outpatient treatment suffered no detectable psychotic illness, and five were described as having personality difficulties. In two cases, borderline pathology was suspected.

Of the four brothers, two were hospitalized because of "LSD

psychosis." One had serious psychotic episodes secondary to drug abuse. He had also abused alcohol. The other jumped out of a window under the influence of LSD. The two other brothers were hospitalized as a result of sociopathic behavior and substance abuse. One, who abused alcohol and drugs, often exhibited hostile and uncontrollable behavior, and was involved with gangs, vandalism, and truancy. The other, a drug addict, was imprisoned at one time. Of the 11 brothers who had, at one time, received outpatient treatment, nine were seen as having neurotic or personality difficulties. Thus, as with the sisters, there was no evidence to suggest the presence of any major psychotic illness in the siblings. Table 14 indicates the frequency of treatment for suspected neurosis or personality difficulties in the siblings, as well as in the parents, of the 50 borderline females.

The sparse information about the sisters did not reveal any striking patterns or trends with regard to their difficulties. There were isolated cases of obesity (2 of the sisters), withdrawn behavior (2), temper tantrums (1), emotional lability (3), depression (2), shoplifting (2), running away (1), promiscuity (2), nervousness (2), and self-mutilation (1). Four sisters had made suicide gestures in the past; two of these, in addition to two others, abused alcohol. One of the alcohol abusers also abused drugs; two others solely abused drugs. In all, four sisters were given offhand diagnoses of "borderline"; another, as noted above, was seen as having a "personality disorder with hysterical and obsessive features"; two others were seen as having character disorders and another was described as

"quite disturbed." To repeat, there were no indications in any of the chart material, or verbal exchanges with the treatment team, to suggest any major psychotic, affective or schizophrenic, illness at this time.

Despite the limited information about the brothers as well, there was nevertheless some suggestion of a mild trend in the direction of behavioral problems, and psychopathic tendencies, rather than more serious, psychotic disturbances. More specifically, in 23 percent of the brothers (15 brothers) there were clear manifestations of impulsive, acting out, antisocial behaviors. Two of the brothers were abusing alcohol; three more were abusing alcohol and drugs; and an additional five were abusing drugs only. Three of the brothers had prison records. Two were pushing drugs; three were truant, and one other was involved in acts of vandalism.

Considerable anger, hostility, and/or temper tantrums were noted in 13 percent of the entire sample of brothers (7); significant depression was seen in an even smaller group (4). Two of the brothers attempted suicide. Otherwise, there were infrequent instances of bisexuality (1), hyperactivity (2), separation problems (1), enuresis that persisted until the late teen years (2), social isolation (4), and self-mutilation (1). In all, the data reveals the absence of pathology of a more serious degree, and the presence of difficulties ranging from the neurotic to characterological. In one case, the label "borderline" was used to describe one 14 year old brother who was recently placed in residential treatment.

Table 17
 Make-up of Families of Borderline Females
 Including Sex, Age, Presence or Absence,
 and Emotional Status of Members^a

Case Number	Patient and Siblings in their Ordinal Position				Mother	Father
1	M, 19, 0	M, 22, 0	*24		54, 7, D	57, 7, A
2	*24	F, 30, 1	M, 31		56	58
3	($\frac{1}{2}$, M, 2 $\frac{1}{2}$)	($\frac{1}{2}$, M, 11)	*14		34	37, A
4	M, 21	*24	F, 27, 0		57	D, 0
5	F, 29, 0	*31	M, 35	F, 38	65	66
6	M, 13, 0 ^b	*16			37, 0	41, 1, A
7	F, 9	*16	M, 17		44	50
8	*17				52	42, A
9	*21	M, 25			50	52
10	*15 M, 29, 0	F, 17, 1 M, 30, 0	M, 21, 1	F, 23	52	53, 0
11	F, 23	M, 25	*26	M, 29	52, 0	53
12	*16	M, 19, 0			48	52
13	($\frac{1}{2}$, M, 28)	*40	F, 47		65	A
14	*16	M, 16	F, 21, 1	M, 23	41, 1	40, 1, A
15	*32	F, 32 (twin)				
16	*17	M, 19, 1	M, 20		45, 0	45, A
17	*26	F, 30	F, 36	M, 35	60	73

Table 17, Continued

Case Number	Patient and Siblings in their Ordinal Position				Mother	Father
18	M,28	*33	F,35	($\frac{1}{2}$,F,40s)	70	65
19	*18	M,21	F,23,1		49,0	50
20	($\frac{1}{2}$,F,11,0)	*13			30,1	A
21	*17 F,26	M,19 F,31	F,21	M,23	52	56
22	*34				71	A
23	M,30	*36			67,1	69
24	F,10	F,12	*15	F,16,0	40,0	43,0
25	*34	F,36	M,7		56	D
26	($\frac{1}{2}$,F,10) ($\frac{1}{2}$,F,25)	M,18	*20	F,22	D	
27	*17	F,21	F,25		48,0	48
28	F,17	F,20	F,22	*23	46	49,0
29	*27	M,29	F,34	F,37	59	62
30	M,12,0	M,16,0	*23		50,0	49,0
31	*45				76	D
32	M,19	*22			48	51
33	M,7	M,18	*20		41,0	45,1
34	F,22 F,35	F,25,0	M,29	*32	61	62
35	F,19	M,23	*25		54,0	56
36	*17				48,0	61,A

Table 17, Continued

Case Number	Patient and Siblings in their Ordinal Position			Mother	Father
37	*23	M,29	M,34	59	63
38	F,16	*17	F,20	M,21	D
39	*16	M,18		42	47
40	F,13	M,17,0	*19	M,21,0	41,0
41	M,33,1	*35		55	57
42	M,2	F,10	*14	F,16	38
43	*22	M,24,0		46	D
44	M,22	M,24,1	F,25,0	*27	52,1
45	M,25 *34	M,29	M,31	F,32	50+
46	M,24 M,42	*31	F,33	F,38	53
47	*27	F,37	M,D	D	72
48	M,36	*38	F,44	70,1	D
49	M,12 M,28	F,23 F,32	M,24	*27	52
50	F,15,0	*20	M,24	52,0	51,A

^a Code: *: Patient
M or F: Sex of Relative
Number: Age
D: Deceased
A: Absent due to Abandonment, Separation, or Divorce
I: Inpatient Treatment
O: Outpatient Treatment
(½): Half or Step Siblings; Not Included in Analyses

^b This sibling was 15 when the most recent information was obtained.

Table 17 summarizes the make-up of each of the families of the 50 borderline patients, including sex, age, presence or absence, and emotional status of the members. The children, further, are arranged from youngest to oldest in order to illustrate the patient's position in the family.

Suicide in the Families

Table 18 indicates the number of suicide attempts or gestures,

Table 18

Frequency of Suicide Gestures or Attempts and
Completed Suicides in 204 Immediate Relatives
of 50 Borderline Females

	Suicide Gestures or Attempts	Completed Suicides
Mothers (50)	1	0
Fathers (50)	<u>5</u>	<u>1</u>
Total Parents (100)	6	1
Sisters (48)	4	0
Brothers (56)	<u>2</u>	<u>0</u>
Total Siblings (104)	6	0
Total Relatives (204)	12	1

and completed suicides, in the relatives of the borderline patients.

The sample sizes were corrected for age, based on an estimated period of risk from birth to death, and the morbid risks, or lifetime prevalency rates, of suicide for the relatives of the three groups were computed and are summarized in Table 19.

Table 19

Morbid Risk for Suicide in 204 Immediate Relatives
of 50 Borderline Patients, 1,098 Immediate Relatives
of 200 Manic-Depressive Patients, and 904
Immediate Relatives of 200 Schizophrenic Patients^a

Relatives of:	Number at Risk	Number of Suicides	Morbid Risk
Borderlines	107	1	.93
Manic-Depressives	666	14	2.10
Schizophrenics	511.5	0	.00

^a Figures based on Loranger's (1978a) research and reprinted with his permission.

The morbid risk for suicide in the relatives of the borderline patients was not significantly different than that for the population at large ($Z = .05$; $p = .96$) or for the relatives of manic-depressives ($Z = .82$; $p = .41$). However, the risk or lifetime prevalency of suicide in the families of borderlines was significantly greater than that in the families of the schizophrenic patients ($Z = 2.21$; $p < .03$).

Alcoholism in the Families

As noted in the descriptions of the parents and siblings, alcohol is widely abused. Table 20 summarizes the extent of alcohol abuse in the family members and includes Loranger's (1978a) unpublished findings about the family members of the 200 manic-depressives and 200 schizophrenics in his study.

Table 20

Prevalence of Current or Past Alcohol Abuse in
204 Immediate Relatives of 50 Borderline Patients,
1,098 Immediate Relatives of 200 Manic-Depressive Patients,
and 904 Immediate Relatives of 200 Schizophrenic Patients

	Number of Relatives of Borderlines	Number of Relatives of Manic-Depressives	Number of Relatives of Schizophrenics
Mothers	6	6 (27) ^a	5
Fathers	<u>18 (17)</u>	<u>17 (57)</u>	<u>21</u>
Parents	24 (17)	23 (77)	26
Sisters	4	2	3
Brothers	<u>5</u>	<u>10 (27)</u>	<u>3</u>
Siblings	9	12 (27)	6
Total Relatives	33 (17)	35 (97)	32

^aFigures in parentheses represent uncertain cases of alcohol abuse.

The three samples of relatives were corrected for age, and the morbid risks for alcoholism were calculated. The results may be found in Table 21.

Table 21
Morbidity Risk for Alcoholism in 204 Relatives of
50 Borderline Patients, 1,098 Relatives of 200
Manic-Depressives, and 904 Relatives of 200 Schizophrenics

Relatives of:	Absolute Number of Relatives	Estimated Number at Risk	Number of "Alcoholics"	Morbidity Risk
Borderlines	204	141.5	33 (17) ^b	23.32 (24.03) ^b
Manic-Depressives	1,098	785 ^a	35 (9?)	4.46 (5.60)
Schizophrenics	904	650.5 ^a	32	4.92

^aThis number is underestimated as some of the alcoholics may have wrongly been assigned a half-weight. Thus, the morbidity risk would be somewhat, yet probably insignificantly, lower.

^bFigures in parentheses include uncertain cases.

As may be seen, there is a significantly greater likelihood that the relatives of borderline patients will abuse alcohol than that found in the general population ($Z = 6.54$; $p < .0002$). Moreover, there is a significantly higher risk for alcoholism in the families of borderlines than in the families of manic-depressives ($Z = 7.89$; $p < .0002$) and than in the families of schizophrenics ($Z = 7.24$; $p < .0002$). Even when the uncertain cases of alcoholism are included in

the calculations, these findings remain at highly statistically significant levels. In all, there was a greater preponderance of difficulties with alcohol in the relatives of borderlines than in any of the comparison groups.

Developmental and Environmental Factors

Historical data, relevant to the child's early development and the environment in which she was raised, was either limited for many of the cases, or essentially unremarkable, and too general and vague. However, some aspects, for instance, behavior and personality during childhood, early symptomatology, and separation and losses, were well documented. The integration of the material obtained from the 50 chart histories will be presented below.

Gestation and Birth History

Of the ten cases in which some noteworthy aspect in this area was reported, four of the mothers reported some difficulty while pregnant with the child. For one mother, there were concerns about an early miscarriage, and she took unknown medication for this. The second experienced spotting during her late pregnancy, and the third's membranes broke two weeks prior to delivery. The fourth mother was ill with "amoebic and bacillary dysentery" requiring a three week hospital stay during her pregnancy, and she was given medication considered dangerous to pregnant women. Delivery was difficult for this mother, and, as it was in one other case, the infant was in the transverse position. Further, she remained in the hospital for an addi-

tional seven weeks as she was paralyzed by blood poisoning from the neck down. The child, in turn, was infected, necessitating drainage from the lower abdominal area. Two other mothers were also ill following the delivery; one mother was hemorrhaging and had to be rehospitalized. The other child, whose transverse position prompted an emergency Caesarean, was anoxic at birth. Of note, too, is the presence of congenital anomalies in at least two of the patients. In one, the child had difficulties with her bowels, and her rectum had to be stretched. As for the other, an "anomaly of the mouth of the bladder" led to 15 to 20 surgical procedures, presumably over the years, to stretch the opening. It was further reported, with little detail, that one other child was treated briefly during her first month for intestinal trouble, and was "readmitted to the hospital because of difficulty having bowel movements." Lastly, it was reported that two of the childbirths in the sample were unplanned and inconvenient.

Behavior During Infancy

Of the ten infants described, four were considered as "easy," "very good," "perfect," and as "a beautiful child who was always being admired." Two of these were described as "a joy" and "a delight to have." They never gave any trouble, were never naughty, and hardly ever cried or needed to be spanked.

Six of the patients were seen as "difficult," "tense," "sickly," and "colicky" infants. Three were considered "colicky." One mother felt unable to please her constantly crying and demanding daughter.

In order to stop the child's crying, she would carry her around and provide her with an empty breast as a pacifier. The second colicky infant cried a lot, never wanted to go to bed, and threw up at night. She also wore a foot brace to correct a mild orthopedic problem. Another patient was felt to be an "extremely tense" baby who cried a great deal. This was also the child who had difficulty moving her bowels. One "difficult baby" was rigid and unresponsive when held, sucked slowly, and seemed hypersensitive to stimuli. Two of the patients were described as "sickly" infants; one "never played with toys...always seemed hyperactive and unhappy to her mother."

Eating

Noteworthy information relevant to the patient's early eating was available for only four of the cases. Three were described as "bad," "fussy" and "poor" eaters. One mother was described as being preoccupied with protecting the infant from germs. Another, impatient with the time entailed in bottle feeding, would prop up the infant for her feedings. This mother was described, as well, as being anxious about her child's eating.

Sleeping

One child was described as a poor sleeper during her first three years. The only other difficulties during childhood, related to sleep, included the usually long history of "night terrors" or nightmares, often of a recurrent nature, endured by ten of these patients. Specific content was described for three of these patients. One dreamt

of her mother or grandmother dying, another frequently dreant of her father being killed, and the third envisioned her own funeral in her recurrent nightmares.

Toilet Training

There was no particular material revealed with regard to toilet training. A few cases revealed the unremarkable variation in ages of training, ranging from an early nine months, in one case, to as late as three years. Bowel training was reportedly quite difficult with one child. She would withhold her stools for long periods of time, resulting in stomach cramps. The struggle over toilet training abated when the grandmother interceded.

Motor Development

There was generally nothing remarkable to report in this area as well. Slower, albeit not particularly atypical, motor development was noted in five of the cases. Two children walked at one year, one "walked a bit later than parents expected," and a fourth walked at 18 months and was "uncoordinated as a child." For some reason not elaborated in the history, one child was "kept off the floor until age two" and didn't walk until two.

Speech and Language Development

This area received the least attention in the case histories. One child was allegedly "precocious," uttering "mother" at three months of age; another did not begin speaking until two years of age.

Cognitive Development and Learning Difficulties

From the little and ambiguous information in this area, it can be seen that at least four of the patients experienced some academic difficulties; an additional four of the patients may have suffered from "mild dyslexia" or learning disabilities of a specific nature. One of these was the child who never played with toys, seemed hyperactive and unhappy to her mother. At first, she was thought to be retarded. It was later determined that she had particular coordination and perceptual deficits. One child was seen as a "lazy student," another as a "poor reader." For the remainder, there were no noteworthy difficulties in school. Rather, for the most part, these patients were seen as excellent achievers during their elementary school years, whose academic functioning dropped off when they approached adolescence.

Behavior and Personality During Childhood

Relative to the other areas, there was considerable information in the charts about the patients' behavior and personality characteristics during their childhood. With the evidence for early symptom manifestations (see next section), a sense of the premorbid adjustments and personalities of these individuals can be gained.

First and foremost, marked difficulties with peers and extreme social isolation and loneliness were reported in 38 percent (19) of the patients. These patients are described in any number of the following ways. Many were "loners," they either had "few friends," "never had any close friends," or "never (even) had a friend." They

often experienced themselves as "on the fringe," "isolated," "withdrawn," "lonely," and "cut off from other people." Longstanding difficulties initiating and maintaining friendships were seen in many of these girls. Some were "obnoxious," "competitive" and "jealous," as well as "angry and resentful toward playmates." One girl was too "fussy and particular about friends." A few experienced, and perhaps invited, teasing from their peers. Many reported having a "lonely and unhappy childhood." The experience of one patient is generalizable to many others. She "always remembered feeling lonely...unable to get along with people...(being) scared of cliques...feeling disliked...with no friends." A few admitted to feeling unhappy, "always hating life," never feeling satisfied, wanted, or appreciated.

Of all the females in the study, 18 percent (or 9) were clearly depicted as "exceptionally good," "compliant," "quiet," "sweet," "polite" and "obedient" little girls. Five of these manifested the above mentioned interpersonal difficulties as well. There were descriptions of "father's little angel" who, "not allowed to show signs of aggression," presented herself as the "perfect child...an extroverted...bubbly and vivacious...flower girl." Another "perfect obedient little girl" was the "model child" who "never caused her parents problems."

Concomitantly, 20 percent of the sample group (overlapping somewhat, though not totally, with the above groups) were seen as very "shy," "self-conscious," "anxious," "sensitive," and "insecure" children. Some "felt different than others," and were timid and fearful in group situations.

Early behavioral difficulties were also evident in many of these patients. Frequent temper tantrums and rageful outbursts were stressed for five of the 50 patients. Demanding, hostile, rebellious, uncooperative, and unmanageable behaviors were evidenced in a handful, though insignificant number, of these patients. A few were seen as "spoiled" and "stubborn," able to do almost anything they wanted.

In all, there is a suggestive, though certainly inconclusive, picture of these patients as having considerable interpersonal difficulties during their childhood and as being lonely and unhappy, shy, anxious, and overly compliant little girls, with intermittent behavioral disturbances.

Early Symptomatology

As noted earlier, 20 percent of the sampled patients (10) experienced recurrent, often terrifying, nightmares throughout their childhood, and ten percent (5) were known to throw temper tantrums. Other than those, there were some relatively infrequent symptom manifestations, including clinging behaviors and difficulties separating from family members (in 5 cases), fears of the dark (4), fears of being enclosed (1), persistent enuresis (3), thumb sucking until a late age (3), and nail biting (3). In addition, there were isolated occurrences of suicidal ideation, suicide gestures (i.e., jumping in front of a moving train), head banging, gnawing at one's knuckles, and shoplifting. Less typical symptoms included one child's refusal to allow anyone, with the exception of her brother, to touch her, another's insistence on wearing clothes she had outgrown, and a third's ritual of

walking upstairs in a particular way, which she felt would keep her grandmother alive.

Medical Problems in Childhood

It is difficult to evaluate any disposition or susceptibility to illness in this population, without any means for comparison. However, in several instances, unusual difficulties have been noted. During the first two years of life, three of the group were "colicky," one had intestinal problems, and two others had difficulties with bowel movements (one requiring surgical intervention), as noted earlier. In addition, there were individual cases of malaria and blood dyscrasia, as well as the development of diabetes during this early period.

Later, questionable seizure disorders (in 3 patients), allergies (in 4), pneumonia (in 2), whooping cough (in 2), ulcers (in 2), and isolated cases of asthma, croup, kidney infections, periodic paralysis, and constipation problems were noted. Unusual surgical procedures, other than tonsillectomies (in 4) and appendectomies (in 1), included the removal of a benign tumor from the child's knee, surgery on the ureteral structure in one child, and widening the mouth of the bladder on another. Of interest are the problems with the bladder and rectum noted in at least four of these patients, although the introduction and popularity of what may have been a new surgical intervention at that time may account for this number.

Environmental Influences: Separations, Divorces, and Losses

Disruptions in the stability and integrity of the family, and chaos in the home, were characteristic for a majority of the borderline females. In fact, of the 50 cases, only 56 percent (28) of the families were intact, at least on a superficial level. The remaining 22 families were disrupted by separation or divorce, father's abandonment, and parental death.

In seven instances, there was a death in the immediate family. The mothers of two patients died of serious illness when their daughters were two and five years of age. One father committed suicide by hanging when the patient was four. Two others died when their daughters were three and one half and 14 years of age. Two brothers died as well; one died after his first day home from the hospital (the patient was three)³ and another died in a motorcycle accident when the patient was nine. The deaths of eight significant grandparents were also noted.

In addition to the loss of five parents by death, five fathers abandoned the family, never to return. Three fathers left before the patients reached one year of age; two others left in the patients' preadolescent years (11 and 12). Further, marital separations and/or divorces were pandemic. In 14 of the other families, the parents' marriage dissolved. This occurred as early as immediately after the patient's birth through the teen years. For a few, the

³This sibling was not included in the analyses.

parents were reunited and separated a few times.

Temporary separations and leave-takings of close family members also colored the early experience of a few other patients. In four cases, the mothers were hospitalized for long periods of time. One father was away during the patient's fourth year because of unknown reasons; one father was hospitalized for almost a year following a serious car accident. One brother was psychiatrically hospitalized after months of family conflict, when the patient was ten.

As a result of the various abandonments, divorces, and permanent and temporary separations, a majority of these patients spent some, or much, of their childhood in the primary care of only one parent. In at least five instances, the grandmother (mostly on the maternal side) was a significant caretaker. In several other instances, the patients were shuttled between various other family members, nannies, and housekeepers.

Other Environmental Influences

The extent of alcoholism, aggressive behavior, and personality difficulties in these families has been presented. In addition, noteworthy material about the atmosphere in the home and early family life was reported in many cases. In at least half of the cases, reference was made to the "cold" and/or "chaotic" early home life and upbringing. Many of these parents experienced their homes as "cold, devoid of affection, constantly in crisis." Some didn't feel really cared for or loved. Family members were distant, "emotionally unavailable, incapable of offering consistent support." The patients often felt un-

accepted and unable to meet expectations, and "alienated," "isolated," and lonely in their families. Several "grew up in a depriving, rejecting atmosphere in which (they) were the selected scapegoat," the "bad child(ren) in the family." A few were clearly designated as the intermediaries in or recipients of the bitter marital conflicts.

Constant quarreling and tension were present in at least 20 percent of the homes; "parental conflict" and "stormy marriages" were characteristic for at least 26 percent of the families. When consideration is given to the number of single parent families, these figures gain greater credence. Their early lives were described as "full of turmoil and crisis," "erratic, stressed" and "terror-filled." It was inferred in at least four of the cases that the patient was raised in an environment in which the expression of anger was considered dangerous, and equated with physical brutality, and threats of destruction and death. As it was formulated in one such case, the patient was exposed to "role models that acted out impulsively and violently."

One additional environmental influence was noted. Eight, possibly nine, of the patients were allegedly victims of sexual abuse during their childhood and early adolescent years. While both family and nonfamily members were implicated, further details and corroboration about the nature of the alleged molestation were not provided.

Summary of Salient Findings

1. About one-third of the female patients discharged during the

period from March 3, 1977 to March 29, 1979 with a DSM II diagnosis of "Other personality disorders of specified types 301.89" met the six criteria necessary for inclusion into DSM III borderline sample of this study. An additional nine percent satisfied five of the criteria.

2. The patients in the borderline sample were typically characterized by impulsivity or unpredictability in ways which were potentially self-damaging, unstable and intense interpersonal relationships, considerable anger and difficulties controlling their anger, marked identity conflicts, emotional lability, and self-destructive behaviors. Difficulties tolerating being alone and chronic feelings of emptiness and boredom were seen less often.

3. Of all the excluded, questionable, and borderline cases, not one fully met the DSM III criteria for a Schizotypal Personality Disorder. However, a large proportion (46%) of the borderline patients reported feelings of depersonalization and/or derealization, and about one quarter of the group reported a history of social isolation.

4. The patients in the borderline sample were predominantly single, white, middle class females, born in New York State or the Northeast, and affiliated primarily with the Roman Catholic and Jewish religions. The ages of these women ranged from 13 to 45, with the mean age at 23.9 years (S.D. = 7.9).

5. In 56 percent of the families of these patients, one or more

family members had been involved in inpatient or outpatient psychiatric care. A total of 53, out of 204, relatives were in treatment.

6. There were no certain treated cases of schizophrenia in the relatives of the borderline patients, one case of treated bipolar affective illness (mania) in one mother, one case of treated unipolar affective illness (depression) in another mother, and 40 cases of treated neuroses or personality disorders.

7. The rate of schizophrenia in the relatives of the borderlines was not in excess of that in the general population, as was hypothesized, nor was it significantly different from that in the families of schizophrenic patients.

8. Similarly, the likelihood of a severe affective illness was not any greater in the relatives of the borderline patients than it was in the general population. This holds true for the likelihood of bipolar and unipolar disorders considered separately. When the one uncertain case of a bipolar disorder is included, the likelihood of a bipolar illness in the relatives of the borderlines becomes significantly greater than in the general population. In all, there was a nonsignificant trend toward a higher risk of bipolar affective illness in these relatives.

9. While the morbid risk for a bipolar, manic-depressive illness was greater in the relatives of manic-depressives than it was in the relatives of borderlines, the risk was not significantly larger.

However, it was shown that the relatives of borderline patients were less likely to have a unipolar disorder than the relatives of manic-depressive patients. In all, though, the risk for any affective disorder, either unipolar or bipolar, was significantly less in the relatives of the borderlines than in the relatives of the manic-depressives.

10. There was a highly significant greater likelihood of neurosis or personality disorders in the relatives of borderline patients as compared with those of manic-depressive and schizophrenic patients. Thus, the greater prevalence of characterological difficulties in the families of borderlines was confirmed.

11. The cardinal characteristics of many of the mothers of the borderline patients include (a) emotional unavailability and defective empathic awareness of the child's needs; (b) infantile and narcissistic needs and behaviors; (c) difficulties accepting and approving of the child for what she is; (d) marked emotional lability; and less often, (e) impulsivity.

12. In many of the fathers, one typically sees (a) considerable alcohol abuse; (b) marked difficulty in the expression of anger, as well as in the expression of affectionate feelings; (c) severe punitiveness and abusiveness in several; and to a lesser extent, (d) depression; (e) suicidal leanings; and (f) psychopathic tendencies.

13. There was relatively little information obtained about the

siblings of the study population. Nevertheless, the siblings in treatment were seen as having severe characterological problems, and in many, borderline pathology was suspected. Suicidal gestures and substance abuse were noted in at least four of the sisters. About one-quarter of the brothers manifested impulsive, acting out, psychopathic behaviors. In addition, anger and aggressive behavior was noted in 13 percent of the brothers, and a smaller percentage experienced significant depression.

14. Twelve of the relatives made suicide gestures or attempts. One father actually committed suicide. However, the morbid risk for suicide in the relatives of the borderlines was not significantly different from that in the general population or relatives of manic-depressives, but significantly greater than that in the relatives of schizophrenics.

15. Thirty-three (possibly 34) of the 204 relatives have abused alcohol; 18 (possibly 19) of the fathers were allegedly "alcoholics" or had "drinking problems." There was a highly significant greater likelihood of problems with alcohol in the families of borderline patients when the latter were compared with the relatives of manic-depressives, schizophrenics, and the general population.

16. There was inconsistent and somewhat vague information in the charts relevant to the developmental and environmental variables. Certain aspects, however, were noteworthy. Ten of the patients experienced recurrent and terrifying nightmares during their childhood.

Several had academic difficulties and learning disabilities, whereas the majority functioned well in school until the onset of adolescence. In terms of premorbid personality adjustment, greater than one-third of the patients had marked interpersonal difficulties, and were socially isolated and lonely during their childhood. There was also a tendency for these patients to have been extremely compliant, shy, self-conscious, and insecure little girls.

17. The early family environment of these patients was characteristically unstable and chaotic. About half of the families were disrupted by parental separation or divorce, abandonment, and death. In many of the other supposedly intact families, marital tensions and conflict contributed to the turmoil. Unmodulated expression of anger and physical abuse were parts of their lives. And, concomitantly, these patients experienced their homes as cold, unsupportive, and rejecting, and many often felt isolated, lonely, and frightened.

CHAPTER VI

DISCUSSION

It is often stated that borderline individuals, in their ever fluctuating symptom pictures, defensive maneuvers, and interpersonal relationships, create chaos around them. Certainly, there is considerable controversy and excitement in the field at this time surrounding the borderline conditions and their place, however unstable, along the psychopathological continuum. Much of the polemics center around the question of whether borderline pathology constitutes a separate and distinct diagnostic category, or whether it is a mild form or subtype of schizophrenia, or a variant of an affective disorder. Several of the investigators are comfortable with the symptomatic and phenomenological aspects; others prefer viewing it in terms of an organization of personality structure. All, however, generally agree and commiserate with each other about the lack of empirical data in much research. Stone (1979) states: "The time seems ripe now for carefully controlled consanguinity studies on large samples of rigorously defined borderline patients" (p. 109).

It was the intent of this dissertation to do just that--to leave the arena of debate and examine the patients with the so-called Borderline Personality Disorders according to the new DSM III criteria. Symptomatic manifestations, demographic variables, prevalence of family psychopathology, and developmental and environmental anlagen were studied. Fifty female patients, discharged from the Westchester

Division of The New York Hospital between March 3, 1977 and March 29, 1979, who fit six of the DSM III criteria (although in the latest revision only five would have been sufficient) were the subjects of this research. This chapter will discuss, with the hope of understanding, the results of this endeavor, their relation to other investigations and theoretical formulations, and the implications for treatment and future research.

There were some striking findings, as well as minor and suggestive trends. There was no evidence for a genetic link between Borderline Personality Disorders and schizophrenia or affective disorders. A preponderance of neurotic and character pathology was present in the relatives of these patients, and a disrupted and disturbed home environment was characteristic for many.

Borderline Personality Disorder
and Its Relation to Schizophrenia
and Schizotypal Personality Disorder

There were no certain cases of treated schizophrenic illness, and no evidence for untreated schizophrenic illness, in the immediate relatives of the borderline patients. Clearly, the risk of a borderline patient having a schizophrenic relative was quite small, and not significantly different than for the general population, as hypothesized. On the other hand, the risk was not dissimilar to that for the relatives of Loranger's (1978a, 1978b) schizophrenics, although in the latter, it was noted the risk was unusually low as well.

Rosenthal (1970) summarizes the research on morbidity risk among relatives of schizophrenic index cases, and the estimates cited range from .2 to 12.0 percent for parents and 3.3 to 14.3 percent for siblings. If comparisons with many of these morbid risk figures were made, the morbid risk for schizophrenia in the relatives of the 50 borderlines (0.00%) might be significantly lower. In any event, in this sample of patients, a genetic linkage to a schizophrenic illness could not be supported.

Several possibilities might be raised to account for this particular finding. For one, the mean age of the sample of borderline patients was 23.9 years, and accordingly, their siblings and parents are relatively young as compared with other groups. Even though the sample sizes were corrected for age, the fact that many of the relatives have not passed through the periods of risk for the major psychotic illnesses might account for the low morbid risks obtained.

Further, the criteria for a Borderline Personality Disorder place more emphasis on the affective, behavioral, and interpersonal aspects, and less on the cognitive and perceptual anomalies stressed by many of the theoreticians. Zilboorg (1941) spoke of dereistic thinking; Hoch and his associates (1949, 1959) stressed disorders in thought processes as opposed to the more secondary symptomatology (anxiety, neurotic symptoms, and pansexuality). Frosch (1970) described disturbances in perception and the sense of reality. The characteristics stressed by Kety and his associates (1968, 1976, 1978) included strange thinking, odd communication, brief episodes of cognitive distortion, feelings of

depersonalization, and micropsychosis. These disturbances, as has been noted, are more aptly subsumed under the new DSM III category: Schizotypal Personality Disorder.

In this study, none of the included or excluded cases met the criteria for a schizotypal disorder. In fact, the relative absence of any of the signs of Schizotypal Personality Disorder (with the exception of transient episodes or feelings of depersonalization or derealization) in the study sample strongly suggests that these groups are clearly demarcated from each other.

The question of whether Schizotypal Personality Disorder is a valid diagnostic category, which can be distinguished from Borderline Personality Disorder, is a controversial one at this time. Spitzer and Endicott (1979) argue that:

Both Schizotypal and Borderline Personality Disorders are best conceptualized as independent dimensions of personality that can coexist within the same individual rather than as mutually exclusive diagnostic categories. (p. 96)

In other words, they found that these two categories were independent, but can also overlap. In the present study, it was seen that the borderline patients could not be considered schizotypal, but many did manifest a few of the features characteristic of Schizotypal Personality Disorders. In almost half of the sampled patients, feelings of depersonalization and/or derealization were present. That is, in some, but not all, of the borderline patients, transient psychotic-like experiences were present. One wonders, then, whether the patients in

the sample group can be further subdivided into those with and without such experiences, and whether the familial morbidity risks for the major psychotic illnesses would be greater in the former than in the latter subgroup. It may be that while the borderline patients as a whole are not linked to schizophrenia, a subset (who suffer from transient psychotic episodes) might, in fact, have a closer affinity to schizophrenic disorders.

In addition to the psychotic-like experiences, a smaller proportion (about one quarter) of the group reported a history of social isolation akin to that seen in schizotypal patients. Spitzer and Endicott's research revealed a similar, though greater, prevalence of social isolation in their groups of patients fitting the borderline personality criteria (56%). However, they felt this finding was incompatible with Gunderson's (1975b) criteria regarding intense, unstable attachments, and the fact that borderlines were intolerant of being alone. This author does not conceive of these findings as necessarily contradictory. Borderlines may, in fact, avoid being alone and get involved in fleeting and intense relationships. Nevertheless, despite the flurry of activity and superficial involvements, these patients might be, and often admit to, feeling uninvolved, without any meaningful, close, and long-lasting relationships, and thus, often isolated and on the periphery. Of note, as well, Rieder (1979) noted that this factor of social isolation had the "lowest loading on the schizotypal factor that emerged from the factor analysis" (p. 41) and added that "undue social anxiety/hypersensitivity

to criticism was as much associated with unstable (borderline) personality as with schizotypal personality" (p. 41). In this study, there were relatively few instances of this last factor among the borderline patients.

Despite the presence of two schizotypal characteristics, the borderlines' relation to schizophrenia remains most questionable. Aside from the relatively young age of the relatives in the sample, the manner of history gathering and chart review may have militated against accurate assessment of family psychopathology, including schizophrenia. The number of relatives who were actually interviewed by the team clinicians was not controlled for in the present study. In addition, many studies investigating these questions have used differing diagnostic criteria to diagnose the patients and relatives. These factors might be confounding the picture, and affecting the results.

Many of the relatives of this sample of patients have also been involved in extensive substance, alcohol and drug, abuse and other deviant behaviors, and as Bychowski (1953) suggested, these deviant behaviors might be concealing psychotic potentialities. A follow-up study, after ten and perhaps even after 20 years, of both these patients and their relatives would be highly desirable and most illuminating. One wonders whether a number of the borderline patients will actually become schizophrenic, particularly those who fit the two schizotypal criteria, and whether a number of relatives, after having passed through the period of risk, will become ill as well.

Both Werble's (1970) and Gunderson's et al. (1975) follow-up studies found no evidence of movement in the direction of schizophrenic illness. These studies, it must be noted, were based on follow-ups after only two and five years. Deutsch's (1942) impression that a schizophrenic process must go through an as-if phase still warrants consideration. In other words, she conjectured that the borderline disorder might represent a preschizophrenic condition or incipient stage, which might, in time, become a schizophrenic illness.

In addition to the need for carefully controlled follow-up studies with this and other groups of borderline patients, there is a clear need for more detailed history taking with regard to the extended family. Throughout many of the charts, there were anecdotal references to grandparents, uncles, and aunts who were institutionalized for a variety of reasons, including "nervous" and "melancholic" disorders. An investigation of these relatives, as well as of the children of these patients, while cumbersome, would greatly enhance our understanding.

As there were no certain cases of Schizotypal Personality Disorder among the cases reviewed, it is crucial that those patients discharged with a diagnosis of Schizophrenia, Latent Type (DSM II 295.5) undergo reevaluation in terms of the new category in order to address the question of the category's validity. However, the criteria for this disorder are often difficult to fulfill. While it is easy to identify oddities of thinking, perception, and communication in a mental status examination, one cannot often generalize these peculiarities to the

patient's functioning over a long period of time. The relative absence of these features in the borderline sample might accrue from this fact, as well as from the fact that the treatment team members may not have been as interested in, or sensitive to, these mild schizophrenic-like aberrations and symptoms. It is clearly time to amass a group of patients fitting the DSM III criteria for Schizotypal Personality Disorder and compare the rates of manic-depressive illness and schizophrenia in their relatives with those rates obtained for the relatives of the manic-depressive, schizophrenic, and borderline populations of this study.

Borderline Personality Disorder
and Its Relation to the Major Affective Disorders

Both Stone (1978, 1979) and Liebowitz (1979) feel that a relationship between borderline patients and the affective disorders is a distinct possibility. Liebowitz, for instance, cites the work of Klein on drug responsivity in a subgroup of such patients with atypical affective disorders. In the present study, there were two instances of affective disorders--one bipolar and one unipolar. Despite these two cases, the relatives of borderline patients showed no greater risk for affective disorders (both bipolar and unipolar considered separately and together) than the population at large. When the one uncertain case of mania was included, the risk for a bipolar disorder became significantly greater. Thus, there is a hint (which does not reach significance when only certain cases are

considered) of a greater risk for an affective (particularly bipolar) illness in the relatives of these patients.

Further, while the relatives of the manic-depressive patients were more apt to have an affective illness (bipolar and unipolar), the likelihood of a bipolar illness in these relatives was not significantly higher than in the relatives of borderlines. However, the likelihood of a unipolar illness in the relatives of borderlines was lower, as was the overall likelihood of an affective illness. Thus, while the relatives of manic-depressives were generally more likely to have affective illness, and while no genetic link could be made to the affective illnesses, there was a minor, insignificant tendency for a bipolar illness in the relatives. Further, there were more instances of affective, as opposed to schizophrenic, disturbances in the relatives of the borderline group.

As with the data on schizophrenia in the relatives, there are many variables and questions involved. For one, the morbid risk for manic-depressive illness is difficult to determine. There was not, as there was in the case of schizophrenia, a weighted mean lifetime expectancy figure and standard error for manic-depressive illness. The estimated morbid risk varies considerably, as Rosenthal (1970) noted, as a result of the different populations and different definitions and diagnostic criteria. There has been no research, to this investigator's knowledge, aimed at determining the morbid risk for affective disorders, defined according to the newly proposed DSM III criteria, in the general population. The rates used in the

present study were estimates based on the estimates summarized by Rosenthal, which ranged from as low as .07 percent to as high as 7.0 percent, with most between .4 percent and 1.6 percent. Further, there was no available morbid risk data for bipolar disorders considered separately. It is time for carefully controlled studies of the morbid risks for the varying disorders in the general population.

While the data in this study was compared with results compiled by Loranger (1978a, 1978b) using the same methods, the numbers of relatives and informants of the sample groups who were actually interviewed may vary and pose as an artifact to the present findings. In Stone's (1978) study, many of the family members were given personal interviews. This might account for the greater preponderance of affective disorders in the families of his study. Similarly, one wonders about the hidden potentialities for disturbance in these relatives who are relatively young and also manifest other deviant behaviors. Follow-up studies, of both the borderline patients and their relatives, once they have completed the periods of risk, are solely needed in order to ascertain whether borderline pathology might be a precursor to an affective illness, and whether any of the relatives, in fact, suffer from the disorder at a later time.

It must be noted, in addition, that many of the symptoms manifested by the patients in the study population have an exclusively affective, as opposed to schizophrenic, coloring. Affective lability, considerable anger, and impulsivity are characteristic of these patients, and more commensurate with (and perhaps diluted forms or

milder representations of) an affective disturbance. Aside from the few and transient psychotic-like experiences noted above (which are not required for sample inclusion), there are relatively few manifestations of odd communication, and cognitive and perceptual disturbances, in this sample. Therefore, the defining characteristics of the borderline sample may be affecting the results and pushing the balance somewhat in favor of a contiguity with affective disturbances.

As noted earlier, the prevalence of deviant behaviors, including the high percentage of some degree of alcoholism, might be concealing other psychopathology. Rosenthal (1970) reported on Sherfey's study of alcoholics admitted to the Payne Whitney Clinic of New York Hospital. Of these, 8.7 percent had schizophrenia (mostly paranoid), 6.8 percent had manic-depressive psychosis, and a variety of other psychoneurotic and personality disturbances were noted for the rest.

Other Manifestations of Psychopathology in the Families

One of the more striking findings in the present study is the preponderance of treated neuroses and personality disorders in the relatives of the borderlines as compared with those of manic-depressive and schizophrenic patients. The strikingly significant differences might again accrue from the variations in history taking and in the numbers of relatives personally interviewed. As the patients in the sample are relatively young, the parents are more often alive and available for interviewing. Therefore, more information can be obtained

about the functioning of both the parents and siblings. One additional artifact may be an increased readiness for treatment in the relatives of the borderlines, either due to age, socioeconomic status, or perhaps religious identification. Or, it could be that the greater number of treated characterological problems stems from an underrepresentation of more serious pathology. That is, the number of relatives in treatment may not vary as much from sample to sample, as do the proportions treated for the various illnesses and the proportions with questionable diagnoses. Again, many of the personality difficulties might erupt into more serious disturbances at a later time.

In any event, the impressions of various writers in the field were confirmed by the present findings about treated illnesses and personality characteristics of the family members. Stern (1938) was the first to suggest that the mother "was a decidedly neurotic or psychotic type" (p. 469). The mothers of the psychopathic patients studied by Greenacre (1945) were quite narcissistic; the fathers were often obsessional, stern, distant, and fear-inspiring men. The mothers' narcissism and the fathers' strictness and punitiveness were found in the present study as well. There was evidence here as well which was reminiscent of one of the mothers and one of the fathers described by Wolberg (1952). In her typology, there is the narcissistic and sadistic mother who is competitive and controlling, and the father who is hostile, aggressive, attacking, and controlling. Both of these were seen in many of the families of the

borderlines in this study.

Masterson and Rinsley (1975) advocate the presence of borderline pathology in the mothers of borderline individuals. In the present study, there were suspicions of borderline pathology in only five of the mothers. However, the widespread emotional unavailability (in 38% of the mothers) is consistent with the "faulty libidinal availability" suggested by Masterson and others. He described a typically narcissistic mother, who withdraws libidinal supplies when the child attempts to separate and individuate. Others, including Stern (1938), Deutsch (1942), and Modell (1963), were also impressed by the "deficiency in spontaneous maternal affection," the absence of a "living warm relationship," and the "failure in maternal care" as responsible for the defective ego and narcissistic development typical of borderline patients. Grinker's (1977, 1979) recent work with a small number of these patients (14) corroborates these impressions regarding the parents' failure to provide basic nurturance, protection, and empathy. These notions are often based on unknown, though usually small, numbers of patients. As has been repeatedly stressed, little empirical evidence has been provided to support these. This study, however, has helped somewhat to fill this void. Indeed, the mothers in 19 of the cases are described as emotionally unavailable and cold; the fathers are seen in this light in 13 of the cases. It must be remembered that the fathers were absent from many of the homes, and therefore, the percentage is greater when only the fathers present in the home are considered. While this is a striking finding, there are

limitations to its interpretation. For instance, much of this information is obtained from patient reports, and often their memories, perceptions, and fantasies may be quite at variance with the reality. Further, the clinician's understanding may be excessively influenced by these theoretical formulations. Both the patient and clinician may be biased in their reporting and interpretation of historical material. Nevertheless, the amassing of this evidence in a substantial number of these patients is more than suggestive.

As object relations theorists espouse, the absence of a satisfactory one-to-one mother-child relationship has serious consequences to the formation of psychic structure and ego functioning of the child--to the smooth workings of the processes of identification and sublimation, the formation of one's sense of self and of others, and of reality, in addition to the control and expression of drives and impulses.

While the present study revealed and corroborated certain personality characteristics of the parents of the borderline patients, it remains unclear whether and how these parents (and siblings) differ from the relatives of manic-depressives and of schizophrenics in terms of personality traits and interactional patterns. That is, one wonders whether such characteristics as emotional unavailability, narcissistic character difficulties, problems handling aggression, to name a few, are specific to the relatives of borderline individuals or might be found in the relatives of the schizophrenic or manic-

depressive groups. This leads to yet another unexplored territory. The question underlying many of these findings remains: What would the results look like if a group of non-borderline patients with other personality disorders (either Hysterical, Narcissistic, Masochistic, Infantile, and Passive-Dependent Personality Disorders, to name a few) were used as the comparison groups? Is the familial morbid risk for schizophrenia, manic-depression, personality disorders, and alcoholism, and the prevalence of disrupted, chaotic environments in these non-borderline groups significantly different than that found in the borderline group?

The finding of a significantly greater incidence of alcoholism in the families of the borderline patients must be weighed in light of the aforementioned considerations. First, the period of risk for alcoholism and morbid risk for the general population are not clearly defined. Secondly, the definitions of alcoholism vary from study to study, as does the way in which the clinician is apprised of the family members' alcohol problems. Some are interviewed; others are alleged to be alcoholics. In the present study, a rather loose definition of alcoholism was applied. It was compared with recent unpublished data compiled by Tsuang and Winokur (1978), although the methods and definitions may vary. It is also unclear how the rates of alcoholism in the relatives of borderlines differ from those of the relatives of other non-borderline samples, and whether the high risk for alcoholism is masking other unrecognized difficulties or disturbances. Lastly, the samples were not controlled for religious

preference and socioeconomic status, factors which might further cloud the present findings.

Rosenthal (1970) cited Winokur and Pitts' 1965 study in which there was a high rate of alcoholism among the parents of patients hospitalized for an affective disorder (1.1% of the mothers and 9.5% of the fathers) as compared with the parents of controls (0.0% for mothers and 1.7% for the fathers). The difference with respect to the fathers was highly significant. However, it was noted that alcoholism was a "nonspecific syndrome that is associated in some way with a variety of disorders" (p. 217), as it was seen in the relatives of schizophrenics, psychoneurotics, and individuals with personality disorders. A more careful investigation, utilizing clear-cut and replicable defining criteria for alcoholism, with the relatives of individuals with a variety of psychotic and personality disorders (also clearly defined) is urgently needed in order to better understand this suggestive, though striking, finding.

Environmental and Developmental Factors

Unfavorable environmental circumstances, described by Stern (1938), Deutsch (1942), Wolberg (1952), Knight (1953), Modell (1963) and Frosch (1970), were corroborated by the present study. Stern posited the presence of parental discord, divorce, separation, desertion, and cruelty and neglect. Wolberg noted a chronically disorganized family, and Knight spoke of "traumatic events and disturbed human relationships" (p. 6). Frosch found that a number

of these patients were subjected to "actual traumatic experiences at the hands of significant love objects" (p. 42). More recently, Grinker (1977) found that of the families of 14 borderline individuals, only 43 percent were intact; in 36 percent there was divorce, and parent death figured in the remaining 21 percent. In the present study, 56 percent (of the 50 families) were intact, and separation, divorce, abandonment, and parental death disrupted the remaining 44 percent. Clearly, these findings support those of Grinker, but just how these figures differ when the families of schizophrenics, manic-depressives, patients with non-borderline personality disorders, and normals are studied remains to be investigated. Many of the homes of these patients were described as cold, full of quarreling and terror, and in several instances, sexual abuse was reported. It cannot be determined how much of this information was subject to patient distortion.

Carefully detailed developmental histories were generally unavailable. Further, the differing emphases and techniques utilized in obtaining such information were quite variable and affect these findings. Ideally, future studies should utilize a more rigorous and uniform method of eliciting developmental facts, including birth records, school records, pediatricians' and hospital records, and the like. In any event, certain findings emerged which deserve discussion.

The history of recurrent nightmares in ten percent of the patients, while an isolated finding, bears striking resemblance to a recent finding by Grinker (1977). He noted "the unusual accounting of dreams, remembered

from an early age (usually between three and five years), of violence directed outward or inward, toward the dreamer" (p. 57). In the patients' dreams reported here, the content, too, centered on themes of one's own death or a close relative being killed.

Perhaps this finding can be understood in light of the child's functioning during her waking hours. The premorbid personalities of these borderline patients were often described in terms of a socially isolated, overly compliant, shy, self-conscious, and fearful adaptation. At the risk of falling prey to similar criticisms leveled against those who offer offhand and casual formulations, there is enough evidence here to posit that these patients are often so terrified of any overt emotional expression. Their role models have considerable difficulty in the modulation and expression of affect. Anger is often seen only in its destructive and dangerous forms. Similarly, they, at present, have impaired capacities to handle and neutralize aggression. As one psychiatrist noted in his dynamic formulation of a case: "In order to protect herself, she offered a bland, restricted view to others. Behind this facade, there boiled a cauldron of unexpressed and terrifying emotion." In a way, it seemed as if their outwardly obedient and shy demeanor was masking intense inner turmoil, which they were otherwise unable to adequately handle. It was as if the cauldron was simmering during the latency years, only to boil over when the drives became reactivated in adolescence. The buildup of turmoil in these early years found expression, rather, and safely, through their dreams and nightmares. It is this sort of hunch or discovery that Bolgar (1965)

may have meant to be an advantage of the case history research method, and the first step in future hypothesis testing.

In addition, the patients' roles in the family needs further clarification. In many cases, the patient was designated as the truly disturbed one. In a few, notions about the patient being the "family's scapegoat" and "object for the mother's rage and frustration" were set forth. It was as if all the badness and difficulties are attributed to or projected onto the patient, therefore allowing the other family members to regroup together and function more adequately. This hypothesis provides yet another avenue to explore.

The Borderline Spectrum

The selection of 50 patients who fit the borderline diagnostic criteria, and did not fit the schizotypal criteria, suggests its validity as a separate diagnostic category. The symptoms of this group represent exaggerated behaviors, or overreactions to the environment, on the one hand, and yet milder or diluted forms of more serious disturbances on the other. There was a prevalence of various psychiatric disorders (with the exception of schizophrenia) in the relatives of the study group. Similarly, there were variations in symptomatology. That is, in several instances, more psychotic-like symptomatology was reported. Previous studies attest to the affiliation of borderline pathology with affective disorders (Stone, 1978); others suggest a link to schizophrenia (Kety et al., 1968,

1976, 1978). The evidence in this study did not demonstrate a link between Borderline Personality Disorders and either affective or schizophrenic illnesses.

Perhaps, as has been suggested by Kernberg (1979), Stone (1979) and Meissner (1978), the most parsimonious explanation is that we are dealing with a variety of forms or subtypes of borderline conditions. The different findings may result from the differing patient samples that the various investigators subsume under the rubric "borderline." Thus, any attempts at an integrated theoretical formulation would be futile. Wender (1978) speculates about "homogeneous and etiologically meaningful subgroups" (p. 268). Stone (1979) suggests that borderlines might be related to primary affective disorders in the same way that the schizotypals may be related to schizophrenics. Postulating a genetic heterogeneity among the borderline patients, Stone stresses the need for these patients to be differentiated and diagnosed according to their affiliation with either affectively ill or schizophrenic relatives. Meissner (1978), too, raises "the possibility that variant theoretical accounts are focusing on a diagnostically heterogeneous group of entities that forms a spectrum of borderline conditions. This diagnostic spectrum has not as yet been well articulated or differentiated" (pp. 562-563).

The differentiation of the subtypes of borderline conditions on the basis of both phenomenological and etiological aspects has important therapeutic and prognostic implications. Defining the phenomenology and etiology (be it hereditary disposition or a

tumultuous environment) enables one to better understand the type of problems they have, as well as their vulnerabilities (e.g., in the handling of impulses or in the face of separation stresses) and their strengths (e.g., in the relative intactness of reality testing and thought processes), without underestimating or overestimating their abilities and functioning. One can understand more fully and predict what might occur during the course of treatment, the complicated and intensely ambivalent transference (and countertransference) reactions, the defense mechanisms, the regressive manifestations, the impulsivity and the rage. Further, on the basis of greatly needed investigations of treatment outcome, it may be determined which modalities are more effective with each subtype. Expressive, psychoanalytically oriented psychotherapy may be more suitable for some patients; others might benefit more from supportive or ego-directed approaches. Others might be responsive to psychopharmacological agents, including antidepressant or antipsychotic drugs.

Other Avenues for Investigation

The need for more detailed histories and family (and extended family) data has been stressed throughout this discussion. In addition, one needs to control for the source of the information (either patients' recollections or actual family interviews). This, and other studies, should be replicated utilizing uniform diagnostic practices, such as the newly defined DSM III criteria. Morbid risks

for the general population should be determined using these same criteria. Similarly, a consensual definition of alcoholism should be generated and age of onset data should contribute to establishing agreed upon periods of risk, in order that one can adequately study the morbid risk for alcoholism in the various populations. Furthermore, the prevalence of specific psychiatric disorders, personality characteristics, and environmental events should be investigated for other populations, including those with psychotic disorders as well as non-borderline and schizotypal personality disorders. And with this greater accumulation of data, multivariate factorial analyses could be performed.

This study has only served to open Pandora's box. Future studies should also utilize the latest revision of the criteria for the disorder which states that only five of the eight criteria must be satisfied to guarantee inclusion into the sample. A sample of these patients should be compared with the present sample as well as with the comparison groups.

This study centered exclusively on the histories of female borderline patients. An exciting avenue to pursue would entail amassing a group of male patients who fit the borderline criteria and exploring their backgrounds and the morbid risks for affective, schizophrenic, and character disorders in their relatives. Similarly, most of the studies do not emphasize outpatient populations, and one wonders whether the family and home environments of outpatients who are diagnosed as borderline would be considered healthier. This

group, then, may represent still another dimension of the borderline spectrum.

Eleven of the charts reviewed were excluded because the patients were adopted. Accordingly, there is minimal, if any, information about the natural parents. However, an evaluation of the early development and environments of these individuals, as well as the personalities of the adoptive parents, deserve consideration at a later time.

As noted earlier, follow-up studies, though difficult, would also be illuminating. Many of the patients in the borderline sample are in their late teens and twenties, and have not completed the periods of risk for more severe disturbances. It is indeed curious that so many fall into this age range. One might conjecture about the stresses of entry into adulthood, with the renewed requirements of separation and individuation, as precipitating the disturbance. One wonders, too, why, in this sample, there are so few patients older than 40 with borderline disorders. This may be a result of what may be a relatively young population at this institution (which houses an adolescent unit). On the other hand, it may be that individuals over 40 are given other diagnoses based on the severity and chronicity of their symptoms, and their inability to make something of their lives. A diagnostic reassessment performed blindly after a ten or 20 year interval might shed some light on this issue. It may be that diagnosticians are more conservative with the younger populations. They may be more prone to label them as borderline rather than as more seriously disturbed, as a result of their youth and change-

ability, whereas these same patients, at an older age, might be diagnosed differently, and perhaps more severely. Needless to say, it would be highly desirable to follow the course of the illness, the patient's adjustment, the number of rehospitalizations, and the efficacy of varying treatment modalities.

Concluding Note

The term "borderline," as has been hopefully demonstrated, encompasses a variety of disorders, or subgroups, which are each colored by differing phenomenological, etiological, and prognostic considerations. In the present undertaking, female inpatients diagnosed as having a Borderline Personality Disorder, according to the DSM III, were studied. For this particular subgroup, there was not enough evidence to demonstrate a genetic affiliation with either affective or schizophrenic disturbances. Rather, there was a highly significant preponderance of family members suffering from neurotic or personality disorders, and considerable disruption in the early home environment of these patients. These are the findings for but one band along the spectrum of borderline disorders. An invitation is extended to others to look through the prism and examine the questions and issues presented. With a more precise delimitation of the disorders, and carefully controlled studies of all genetic determinants, clinicians may be better able to understand and help these patients understand, and be more comfortable with, themselves, their families, and others.

APPENDIX A

Proposed DSM III Diagnostic Criteria for
Borderline Personality Disorder

At least six of the following are characteristic of the patient's long-term functioning and are not limited to discrete episodes of illness.

- (1) Impulsivity or unpredictability in at least two of the following areas which are potentially self-damaging:

a. Spending	e. Drug or alcohol use
b. Sex	f. Overeating
c. Gambling	g. Physically self-damaging acts
d. Shoplifting	h. Other _____

- (2) A pattern of unstable and intense interpersonal relationships characterized by:
 - a. Marked shifts of attitude
 - b. Idealization
 - c. Devaluation
 - d. Manipulation (consistently using others for one's own sake)
 - e. Other _____

- (3)
 - a. Inappropriate intense anger
 - b. Lack of control of anger

- (4) Identity disturbance manifested by uncertainty about several of the following:

a. Self-image	e. Long-term goals or career choice
b. Gender identity	f. Friendship patterns
c. Values	g. Other _____
d. Loyalties	

- (5) Affective instability: Marked shifts from
 - a. Normal mood to depression
 - b. Normal mood to irritability
 - c. Normal mood to anxiety

usually lasting hours and only rarely for more than a few days, with a return to normal mood.

(6) Problems tolerating being alone, manifested by:

- a. Efforts to avoid being alone
- b. Depressed when alone

(7) Physically self-damaging acts, for example:

- a. Suicidal gestures
- b. Self-mutilation
- c. Recurrent accidents
- d. Physical fights
- e. Other _____

(8) Chronic feelings of emptiness or boredom.

APPENDIX B

Diagnostic Criteria for Latent or Borderline Schizophrenia (Kety et al.)

1. Thinking
 - a. Peculiar, strange thinking
 - b. Illogical reasoning, tendency to ignore reality, logic, and experience
 - c. Vague, murky speech

2. Experience brief episodes of cognitive distortion
 - a. Ideas of reference
 - b. Delusion-like ideas
 - c. Misinterpretations of reality
 - d. Feelings of depersonalization, a strangeness or unfamiliarity with or toward the familiar
 - e. Feelings of unreality
 - f. Micropsychosis

3. Affective
 - a. Anhedonic
 - b. No deep or intense involvements with anyone

4. Interpersonal behavior
 - a. Superficial, as-if quality
 - b. Sexual adjustment shows chaotic fluctuation, mixture of heterosexuality and homosexuality

5. Psychopathology
 - a. Multiple neurotic manifestations which shift frequently:
 1. Obsessive concerns
 2. Phobias
 3. Conversion symptoms
 4. Psychosomatic symptoms

 - b. Severe widespread anxiety

APPENDIX C

Proposed DSM III Diagnostic Criteria for
Schizotypal Personality Disorder
 (Latent, Borderline Schizophrenia)

At least four of the following are characteristic of the patient's long-term functioning and are not limited to discrete episodes of illness.

- (1) Magical thinking, e.g.:
 - a. Superstitiousness
 - b. Clairvoyance, telepathy, "sixth sense"
 - c. "Others can feel my feelings," and the like
- (2) Ideas of reference, self-referential thinking.
- (3) Social isolation, e.g., no close friends or confidants, social contacts limited to essential everyday tasks.
- (4)
 - a. Recurrent illusions, sensing the presence of a force or person not actually present
 - b. Feelings of depersonalization, without panic attack
 - c. Feelings of derealization, without panic attack
- (5) Odd communication (not gross formal thought disorder), e.g., speech that is:

a. Tangential	c. Circumstantial
b. Vague	d. Metaphorical
- (6) Inadequate rapport in face-to-face interaction due to:

a. Constricted affect	d. Cold
b. Inappropriate affect	e. Superficial
c. Aloof and distant	
- (7) Suspiciousness or paranoid ideation.
- (8)
 - a. Undue social anxiety, or
 - b. Hypersensitivity to real or imagined criticism

APPENDIX D

Form Used to Record Patient Identifying Information

Name _____ Hospital # _____
 Last First Middle I.

Last NYH Admission _____ Last NYH Discharge _____

Present Age _____ Age at 1st Rx _____ Age at 1st hospitalization _____

Date of birth _____ Place of birth _____

Years of education _____ Occupation _____

Marital Status: S _____ M _____ D _____ Sp _____ Religion _____

Previous Psychiatric Treatment in Chronological Order:

Hospital	Outpatient
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____

APPENDIX E

Form Used to Record Family Identifying Information
1st^o Relatives

FATHER

Name _____ Age _____ Occupation _____

MOTHER

Name _____ Age _____ Occupation _____

SIBLINGS

Name _____ Sex _____ Age _____ Occupation _____

Name _____ Sex _____ Age _____ Occupation _____

Name _____ Sex _____ Age _____ Occupation _____

Name _____ Sex _____ Age _____ Occupation _____

Name _____ Sex _____ Age _____ Occupation _____

Name _____ Sex _____ Age _____ Occupation _____

Name _____ Sex _____ Age _____ Occupation _____

Name _____ Sex _____ Age _____ Occupation _____

APPENDIX F

Developmental Data Sheet

Note any significant information pertaining to the following areas which might be considered unusual, abnormal, or disturbed. Note age of child, where possible.

1. Gestation and Birth History _____

2. Behavior during Infancy _____

3. Eating _____
4. Sleeping _____
5. Toilet Training _____
6. Motor Development _____
7. Speech/Language Development _____

8. Cognitive Development _____

9. Behavior during Childhood _____

10. Personality during Childhood _____

11. Fears, Worries, Anxieties, etc. _____

12. Symptoms _____

- 13. Illness,
impairment,
Surgery _____

- 14. Principle
Caretaker _____

- 15. Losses, Deaths,
Separations,
Divorces, etc. _____
Other (List) _____

REFERENCES

- American Psychiatric Association, The Committee on Nomenclature and Statistics. DSM II, diagnostic and statistical manual of mental disorders (2nd ed.). Washington, D.C.: Author, 1968.
- American Psychiatric Association, Task Force on Nomenclature and Statistics. DSM III draft: diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D.C.: Author, 1977; 1978.
- Bleuler, Eugen. Dementia praecox or the group of schizophrenias. New York: International Universities Press, 1950. (Originally published, 1911.)
- Bolgar, Hedda. The case study method. In B. B. Wolman (Ed.), Handbook of clinical psychology. New York: McGraw-Hill, 1965, pp. 28-39.
- Bychowski, Gustav. The problem of latent psychosis. Journal of the American Psychoanalytic Association, 1953, 1, 484-503.
- Clark, Walter. Operational definitions of drinking problems and associated prevalence rates. Quarterly Journal of Studies on Alcohol, 1966, 27, 648-668.
- Deutsch, Helene. Some forms of emotional disturbance and their relationship to schizophrenia. Neuroses and character types. New York: International Universities Press, 1965, pp. 262-281. (Originally published, 1942.)
- Dublin, Louis I. Suicide, a sociological and statistical study. New York: Ronald Press Company, 1963.
- Edwards, Allen L. Experimental design in psychological research. New York: Holt, Rinehart & Winston, 1972.
- Endicott, J., Andreasen, N., & Spitzer, R. L. Family history--research diagnostic criteria (FH-RDC) (3rd ed.). New York: Biometrics Research, New York State Psychiatric Institute, 1978.
- Frosch, John. Psychoanalytic considerations of the psychotic character. Journal of the American Psychoanalytic Association, 1970, 18, 24-50.
- Greenacre, Phyllis. Conscience in the psychopath. Trauma, growth and personality. New York: International Universities Press, 1952, pp. 165-187. (Originally published, 1945.)

- Grinker, Roy R., Sr. The borderline syndrome: a phenomenological view. In P. Hartocollis (Ed.), Borderline personality disorders --the concept, the syndrome, the patient. New York: International Universities Press, 1977, pp. 159-172.
- Grinker, Roy R., Sr. Diagnosis of borderlines: a discussion. Schizophrenia Bulletin, 1979, 5(1), 47-52.
- Grinker, Roy R., Sr., & Werble, Beatrice. The borderline patient. New York: Jason Aronson, 1977.
- Grinker, Roy R., Sr., Werble, Beatrice, & Drye, Robert C. The borderline syndrome, a behavioral study of ego-functions. New York, London: Basic Books, 1968.
- Gunderson, John G. Characteristics of borderlines. In P. Hartocollis (Ed.), Borderline personality disorders--the concept, the syndrome, the patient. New York: International Universities Press, 1977, pp. 173-192.
- Gunderson, John G. The relatedness of borderline and schizophrenic disorders. Schizophrenia Bulletin, 1979, 5(1), 17-22.
- Gunderson, John G., Carpenter, W. T., & Strauss, J. S. Borderline and schizophrenic patients: a comparative study. American Journal of Psychiatry, 1975(a), 132, 1257-1264.
- Gunderson, John G., & Singer, Margaret T. Defining borderline patients: an overview. American Journal of Psychiatry, 1975(b), 132, 1-10.
- Gunderson, John G., & Kolb, Jonathan E. Discriminating features of borderline patients. American Journal of Psychiatry, 1978, 135 (7), 792-795.
- Hoch, Paul H., & Polatin, P. Pseudoneurotic forms of schizophrenia. Psychiatric Quarterly, 1949, 23, 248-276.
- Hoch, Paul H., & Cattell, James P. The diagnosis of pseudoneurotic schizophrenia. Psychiatric Quarterly, 1959, 33, 17-43.
- Hollingshead, August B. Two factor index of social position. New Haven, Conn.: Yale University, 1957.
- Kernberg, Otto. Structural derivatives of object relationships. International Journal of Psychoanalysis, 1966, 47, 236-253.
- Kernberg, Otto. Borderline conditions and pathological narcissism. New York: Jason Aronson, 1975.

- Kernberg, Otto. The structural diagnosis of borderline personality organization. In P. Hartocollis (Ed.), Borderline personality disorders--the concept, the syndrome, the patient. New York: International Universities Press, 1977, pp. 87-121.
- Kernberg, Otto. Two reviews of the literature on borderlines: an assessment. Schizophrenia Bulletin, 1979, 5(1), 53-58.
- Kety, Seymour S., Rosenthal, David, & Wender, Paul H. Genetic relationships within the schizophrenia spectrum: evidence from adoption studies. In R. L. Spitzer & D. F. Klein (Eds.), Critical issues in psychiatric diagnosis. New York: Raven Press, 1978, pp. 213-223.
- Kety, Seymour S., & Schulsinger, Fini. The types and prevalence of mental illness in the biological and adoptive families of adopted schizophrenics. In D. Rosenthal & S. S. Kety (Eds.), The transmission of schizophrenia. London: Pergamon Press, 1968, pp. 345-362.
- Kety, Seymour S. Studies based on a total sample of adopted individuals and their relatives: why they were necessary, what they demonstrated, and failed to demonstrate. Schizophrenia Bulletin, 1976, 2(3), 413-428.
- Knight, Robert P. Borderline states. Bulletin of the Menninger Clinic, 1953, 17(1), 1-12.
- Loranger, Armand W. Manic-depression and schizophrenia: is there genetic overlap? Paper read at the 8th Annual Meeting of the Behavior Genetics Association, University of California, Davis, California, June 22, 1978(a).
- Loranger, Armand W. Genetic independence of manic-depression and schizophrenia. In press, 1978(b).
- Mahler, Margaret S., Pine, Fred, & Bergman, Anni. The psychological birth of the human infant. New York: Basic Books, 1975.
- Masterson, James F. Psychotherapy of the borderline adult, a developmental approach. New York: Brunner/Mazel, 1976.
- Masterson, James F., & Rinsley, Donald B. The borderline syndrome: the role of the mother in the genesis and psychic structure of the borderline personality. International Journal of Psychoanalysis, 1975, 56, 163-178.
- Meissner, W. W. Theoretical assumptions of the concepts of the borderline personality. Journal of the American Psychoanalytic Association, 1978, 26(1), 559-598.

- Modell, Arnold H. Primitive object relationships and the predisposition to schizophrenia. International Journal of Psychoanalysis, 1963, 44, 282-292.
- Rieder, Ronald O. Borderline schizophrenia: evidence of its validity. Schizophrenia Bulletin, 1979, 5(1), 39-46.
- Rosenthal, David. Genetic theory and abnormal behavior. New York: McGraw-Hill, 1970.
- Schmideberg, Melitta. The borderline patient. In S. Arieti (Ed.), American handbook of psychiatry (Vol. 1). New York: Basic Books, 1959, pp. 398-416.
- Siever, Larry J., & Gunderson, John G. Genetic determinants of borderline conditions. Schizophrenia Bulletin, 1979, 5(1), 59-86.
- Slater, Eliot, & Cowie, Valerie. The genetics of mental disorders. London: Oxford University Press, 1971, pp. 356-357.
- Spitzer, Robert L., & Endicott, Jean. Justification for separating schizotypal and borderline personality disorders. Schizophrenia Bulletin, 1979, 5(1), 95-104.
- Stern, Adolph. Psychoanalytic investigation of and therapy in the borderline group of neuroses. Psychoanalytic Quarterly, 1938, 7, 467-489.
- Stone, Michael H. The borderline syndrome: evolution of the term, genetic aspects, and prognosis. American Journal of Psychiatry, 1977, 31, 345-365.
- Stone, Michael H. Assessing vulnerability to schizophrenia or manic-depression in borderline states. Schizophrenia Bulletin, 1979, 5(1), 105-110.
- Tsuang, Ming T., & Winokur, George. Morbidity risk of alcoholism in the general population. Alcoholism, 1978, 2, 225. (Abstract)
- Wender, Paul H. The contribution of the adoption studies to an understanding of the phenomenology and etiology of borderline schizophrenias. In P. Hartocollis (Ed.), Borderline personality disorders--the concept, the syndrome, the patient. New York: International Universities Press, 1977, pp. 255-269.
- Werble, Beatrice. Second follow-up study of borderline patients. Archives of General Psychiatry, 1970, 23, 1-7.

- Winokur, George, Cadoret, Remi, Dorzab, Joe, & Baker, Max. Depressive disease. Archives of General Psychiatry, 1971, 24, 135-144.
- Wolberg, Arlene R. The 'borderline' patient. American Journal of Psychotherapy, 1952, 6, 694-710.
- Zerbin-Rüdin, E. Endogene psychosen. In P. E. Becker (Ed.), Human-genetic, ein kurzes handbuch (Vol. 2). Stuttgart: Georg Thieme Verlag, 1967.
- Zilboorg, Gregory. Ambulatory schizophrenias. Psychiatry, 1941, 4, 149-155.