CLINICAL STUDIES ON THE BORDERLINE CONCEPT WITH SPECIAL REFERENCE TO SUICIDAL BEHAVIOR

by

Gunnar Kullgren

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In the first part of the present study, the DIB, the SI and a percept-genetic test called Defense Mechanism test (DMT) have been utilized in a clinical study on psychiatric inpatients. In the second part completed suicides are studied among patients with borderline personality disorder.

Inter-rater reliability was satisfactory for the DIB both when utilized as a clinical interview and as a chart scoring instrument. Previous research findings concerning descriptive validity of the BPD concept were further supported. Fairly reliable scorings of personality organization could be made from the SI. BPO turned out to be a very inclusive concept and a subgroup (46%) also met criteria for BPD. By means of the DMT specific psychodynamic features were identified among patients with BPD which discriminated them from patients with other personality disorders or schizophrenic disorder. It is concluded, that there is empirical support to consider BPD a valid diagnostic entity. BPO should be conceptualized as a level of personality functioning rather than a diagnostic category and its validity remains to be proven.

Patients with BPD were not seriously over-represented in a material of 145 psychiatric patients, suicided during inpatient care or shortly after discharge 1961 to 1980. The number and proportion of borderline patients, however, increased for every five-years-period. In an analysis of cases suicided during inpatient treatment, repressive/rejective behavior from staff was frequently observed. Risk factors were identified in comparative studies. Male sex, extensive earlier hospitalization, repressive/rejective staff behavior and frequent previous suicide attempts were associated with completed suicides. A specific pattern of psychological variables was identified among suicided borderline patients including antisocial traits, drug abuse and a less intense interpersonal attachment.
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<td>BPD</td>
<td>Borderline Personality Disorder</td>
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<td>BPO</td>
<td>Borderline Personality Organization</td>
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<td>DIB</td>
<td>Diagnostic Interview for Borderline</td>
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<td>DMT</td>
<td>Defense Mechanism Test</td>
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<td>DSM-III</td>
<td>Diagnostic and Statistical Manual of Mental Disorders, 3d Edition</td>
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<td>HSRS</td>
<td>Health-Sickness-Rating-Scale</td>
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<td>MAD</td>
<td>Major Affective Disorder</td>
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<td>MD</td>
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<td>SI</td>
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1. INTRODUCTION.

1.1. The diagnostic concepts.

The concept of personality disorders in general.

Psychiatry has had an interest in the classification of personality disorders ever since the ancient Greeks identified four temperaments, each associated with one of the four humors. The importance of considering a patient's enduring, pervasive and maladaptive pattern of relating to and thinking about others has been more or less recognized in psychiatric research during the twentieth century. In the last decade there has been a renewed interest in this field where the introduction of a separate axis of personality disorders in the latest edition of the DSM was a major step forward (1980).

There are many problems involved in the general concept of personality disorders. One main overriding issue is whether a dimensional or a categorical system should be employed. A categorical model has several advantages; it is more in harmony with psychiatric diagnostic tradition and it is more easily communicated. There is a general spontaneous tendency for people, including psychiatrists, to classify persons, objects or events into distinct categories, even though a dimensional taxonomy would be more accurate (McCauley, et al., 1980). From a theoretical standpoint it is less likely to conceptualize the boundaries between normality and pathology to be sharp and that category membership is an all-or-none occurrence (Presley, et al., 1973). If a diagnostic taxonomy defines very restrictive categories to increase homogeneity, an additional number of waste-basket categories have to be created to cover the complete spectrum of personality pathology. Another problem is the complexity and large amount of inference involved in diagnostic criteria which identify
personality traits. This could be met by introducing more behavioral indicators (Mellsop, et al., 1982). A dimensional system, where the individual is diagnosed according to several dimensions, would be more helpful from several aspects aspect. However, there exists no general agreement as to which dimensions to score.

In the present diagnostic study (paper I-III) three different diagnostic concepts are evaluated, representing different models.

The diagnostic concepts of borderline.

The borderline concepts in current research and clinical practice have their roots in clinical observations made forty or thirty years ago. The first of these observations was that a type of patient was identified who, despite the appearance of healthier functioning, revealed unsuspected evidence of primitive thinking on unstructured psychological tests (Rorschach, 1942). A second observation concerned patients who, when referred for psychoanalysis on the basis of their presumed neurotic disorder, revealed primitive regressive transferences who required termination of their analysis and even hospitalization (Hoch, et al. 1949). Another observation derived from staff working within hospital settings, who identified patients who regressed to primitive and highly destructive behavior when hospitalized.

Further contributions were made during the 1960s when several researchers developed diagnostic concepts from different standpoints. Kernberg formulated a borderline concept within a psychodynamic frame concerned with internal psychological structures (1967). Based on genetic studies concerning schizophrenia Kety and co-workers identified a borderline concept within the schizophrenic spectrum (1971). With emphasize on descriptive characteristics another borderline concept was defined by Grinker, et al. (1968).
These concepts represent two different pathways in the development of a diagnostic concept. The psychodynamic concept of borderline personality organization (BPO) by Kernberg was derived and formulated from a theoretical standpoint. As illustrated in table 1 it represents an intermediate but clearly separated level of personality functioning in terms of degree of identity integration, level of defense mechanisms and capacity of reality testing. BPO is discriminated from the other two levels of neurotic and psychotic personality organization. Characteristic features of the BPO concept include identity disturbances with contradictory non-integrated representations of self and significant others, a dominance of primitive defense mechanisms such as projection, devaluation and splitting in combination with preserved reality testing. In the end of the 1970s Kernberg furthermore described a specific diagnostic method linked to his concept of personality organization - the structural interview (Kernberg, 1981a). The concept of BPO has been further elaborated in later works by Kernberg but the original definitions have been kept the same (Kernberg, 1981b). Though widely cited in the literature and spread in clinical practice, very few empirical studies have been published.

The concepts by Kety and co-workers and Grinker and co-workers represent another research approach in defining diagnostic concepts. First, they aim to define syndrome concepts which are diagnostic entities and not levels of personality functioning. Second, the concepts are derived mainly from empirical research. Different techniques were employed. Grinker and co-workers made a prospective study using a systematic collection of observations and subsequent data analyses. The hallmarks in the borderline syndrome according to the study were (a) anaclitic relationships, (b) identity disturbances, (c) dysphoria and (d) predominance of expressed anger (Grinker, 1968). This study was the first in the field
to use a systematic empirical methodology, which ten years later served as an inspiration to other researchers, such as Gunderson and co-workers (Kolb, et al., 1980).

Kety and co-workers studied the borderline concept from a genetic standpoint in their adoption studies (Kety, et al., 1971; Rosenthal et al., 1971). In their study of the genetic transmission of schizophrenia they identified clusters of patients in the biological relatives of schizophrenic patients whom they called borderline schizophrenics. These patients were characterized by schizophrenic cognitive disturbances and severe character pathology. On a descriptive level these patients resembled the patients with pseudo-neurotic schizophrenia once described by Hoch and Polatin (1949).

Evidently, the concepts of pseudo-neurotic schizophrenia and borderline schizophrenia on one hand and the borderline syndrome emphasizing affective traits on the other hand, are different borderline concepts. This matter was, however, not clarified until the end of the 1970s when Spitzer and co-workers published their work "Crossing the border into borderline personality and borderline schizophrenia (Spitzer, et al., 1979). This work was a major contribution in the development of diagnostic concepts in two main respects. Firstly, because of its thorough systematic empirical design and secondly because of the use of operationalized diagnostic criteria. Two sets of diagnostic criteria covering both the "schizophrenic" and "affective" borderline concepts were derived and tested on 808 patients within the borderline realm and 808 control patients. Two diagnostic concepts with each a of them a set of operationalized criteria emerged from the study - borderline personality disorder (BPD) and schizotypal personality disorders (SPD). Diagnostic criteria in SPD are, among others, magical thinking, odd speech and paranoid ideation. BPD is in short characterized by
identity disturbances, self-destructiveness, poor impulse control, affective lability and intense and unstable interpersonal relationships (table 2). Though partly overlapping it was concluded that BPD and SPD represent two different diagnostic entities. Both concepts were included in the third edition of the DSM. The present work will further focus on the BPD concept.

Another major contribution in the field of borderline diagnosis was also made in the late 1970s in close connection to Spitzer's study - the diagnostic interview for borderline (DIB) by Gunderson and co-workers (Kolb, et al., 1980). Based on vast literature reviews and empirical research characteristic behaviors and symptoms in five areas of functioning were identified. Intense and unstable social functioning, poor impulse control including suicidal behavior, hostility and depression, discrete psychotic features and a specific pattern of interpersonal difficulties emerged as discriminant criteria as demonstrated in table 3. The DIB concept differs from BPD mainly with respect to the discrete psychotic pattern favoured in the DIB. A semi-structured diagnostic interview is linked to this concept improving its inter-rater reliability. In that respect the DIB preceded today's increasing interest in structured diagnostic interviews based on the DSM-III classification.

Some current diagnostic research issues.

Concerning the diagnostic concepts a first crucial issue would be inter-rater reliability. Three basic factors are involved. The clinicians have to make use of the same diagnostic criteria to eliminate criterion variance. They must have access to the same material, i.e. information variance must be kept to a minimum and criteria have to be based on easily observable phenomena to avoid interpretation variance. These prerequisites are fulfilled to various degrees in the three concepts
of current interest: the concept of borderline personality disorder of DSM-III, the Diagnostic Interview for Borderline and the psychodynamic concept of borderline personality organization. All of them are based on explicit criteria to eliminate criterion variance. They differ, however, in several respects.

Many of the BPD criteria operate on a high level of inference (such as "identity disturbances") which tends to leave room for interpretation variance. Consequently, inter-rater reliability of the BPD concept has been quite low in some studies (Spitzer, et al., 1979b). In settings with jointly trained interviewers where reliability has been estimated from videotaped interviews, satisfactory reliability has been demonstrated (Frances, et al., 1984).

The DIB is linked to a semi-structured interview that corrects for information variance and the criteria focus on behaviors, minimizing interpretation variance. It can be conducted in about 45 minutes by clinically experienced psychologists or psychiatrists. Several studies have shown satisfactory reliability (Kroll, et al., 1981; Cornell, et al., 1983; Frances, et al., 1984).

The BPO concept is linked to the so called structural interview. The interview has an "unstructured character" and in addition the diagnostic criteria are operating on a high level of inference. Hence, there are problems with respect to criterion, interpretation and information variance and there has been no previous study on inter-rater reliability.

The second main issue concerns the validity of the diagnostic concepts. Since a single etiological validation criterion is less likely to be relevant for most psychiatric disorders, the validity of a diagnostic concept must be evaluated from several aspects. Guze and co-worker have suggested some general guidelines (1970). A clear clinical description (diagnostic criteria) has to be presented to make the disorder
distinguishable from other disorders. This factor might be referred to as descriptive validity. Several studies have clearly demonstrated satisfactory descriptive validity of the DIB concept (McGlashan, 1983; Kullgren, 1984) and the BPD concept (Spitzer, et al., 1979a; Kolb, et al., 1980; Kroll, et al., 1981; Soloff, et al., 1981; McGlashan, 1983a; 1987). An additional aspect of descriptive validity would be to reproduce findings concerning base rate of the condition and demographic profiles in various national and cross-cultural settings. A survey of more than 20 studies that have reported demographic data has been published (Akhtar, et al., 1986).

Another step in validation, according to Guze, concerns genetic validity. Even though a clear genetic transmission cannot be identified, the pattern of psychiatric disorders among biological relatives might give further clues in assessing validity. The general conclusions from genetic studies concerning BPD are that it is clearly separated from disorders within the schizophrenic spectrum but seems to be closely associated to affective disorders (Loranger, et al., 1982; Pope, et al., 1983).

Follow-up validity represents the most important step in the validation of a diagnostic concept. The by far most important studies concerning follow-up stem from the Chestnut Lodge and deals with the BPD and DIB concepts (McGlashan, 1983a; 1983b; 1986) but there are some other minor studies (Pope, et al., 1983; Soloff, et al., 1983). A general conclusion would be that BPD is clearly separated from schizophrenic disorders as well as from schizotypal personality disorder. The DIB concept seems to offer some advantages compared to the BPD concept.

Concerning concurrent validity with respect to psychological tests the majority of previous studies have focused on the structural diagnosis of BPO according to Kernberg. The main interest has been in
psychodynamically oriented tests like Rorschach or Thematic Apperception Test as presented by Kwawer in an extensive review (Kwawer, et al., 1980). The concurrent validity of the BPO concept was supported by several studies. It seems possible to operationalize the diagnostic criteria of BPO in the Rorschach test. The BPD concept has not as yet been psychodynamically validated.

There are three empirical pilot-studies published concerning the relation between the BPO, BPD and DIB concepts (Kernberg, et al., 1981; Koenigsberg, et al., 1983; Nelson, et al., 1985). The BPO concept emerged as a very broad concept including patients with a variety of other personality diagnosis. There is no general agreement concerning the relationship between the three concepts.

1.2. Self-destructive behavior and suicide.

Self-destructive behavior might be divided into three categories: self-mutilation judged to be nonsuicidal, suicide attempts and completed suicide. There is a close linkage between self-destructive behavior and the diagnostic criteria of BPD or according to the DIB. In BPD 2 criteria out of 8 cover self-destructiveness and in the DIB 1 section out of 5 deals with these features.

In addition, several other criteria are by empirical evidence closely associated with suicidal behavior. Anger and hostility (Weissman, et al., 1977), unstable and intense interpersonal relations (Paykel, et al., 1975) and poor impulse control (Cantor, et al., 1976) are features correlated to suicide attempts. Empirical studies concerned with suicidal behavior in BPD are scant, especially with respect to completed suicides. A retrospective study on depressed patients with a concomitant axis II disorder of BPD revealed that 90% had made earlier suicide attempts compared to 60%
among depressed patients with no personality disorder. It was reported that 6% had completed suicide. Diagnoses of BPD were corrected for suicide attempts as diagnostic criterion (Friedman, et al., 1983). Crumley found that, out of 40 adolescents in psychiatric treatment following suicide attempts, 22 received a diagnosis of BPD (Crumley, 1979). Another study on borderline patients admitted to hospital showed that 74% had made suicide threats and 63% reported self-mutilation (Gunderson, 1984). It is not clear how different aspects of self-destructive behavior correlate to each other. Schaffer and co-workers showed that nonsuicidal self-mutilation correlates to reported earlier suicide attempts (Schaffer, et al., 1982). There has been no previous systematic study on completed suicides in BPD and the relation between suicidal behavior and completed suicide among borderline patients is unclear. Though several studies in a general population have shown that there is an association between suicide attempts and the later occurrence of death by suicide (Worden, et al., 1973) it is sometimes in clinical practice suggested that suicide attempts among borderline patients represent another dimension uncorrelated or even negatively correlated to the occurrence of completed suicide.

Completed suicides, i.e. self-injuries that have terminated in death and that were not interpreted as accidental, might be the end-points of very different processes and represent in a way a very heterogeneous group of events. If we consider a completed suicide to be an ultimate form of self-destructive behavior, several different psychological pathways might be suggested. (1) Suicidal behavior might stem from melancholia or despair and represent a true suicidal act. (2) Rage and loss of impulse control might lead to non-intended self-injury. (3) Suicidal acts and self-mutilation might have a communicative meaning stemming
from interpersonal difficulties and (4) self-mutilation might serve to relieve tension or dysphoria.

Gunderson has proposed a model for understanding self-destructive behavior among borderline patients, based on a psychodynamic object relation theory. He considers the subjective experience of primary significant objects to be the precipitating factor. When they are experienced as present and supportive, the depressive and masochistic features characteristic for borderline psychopathology will be evident but self-destructive behavior is less likely to occur. When a primary object is experienced as frustrating or at imminent loss, the angry and manipulative features predominate and suicide attempts might be frequent. They represent an effort to keep the object from leaving and to gain control over a disappearing object. On a third level, when the object is experienced as absent, fear and panic will dominate. Impulsive and severe suicide acts might occur (Gunderson, 1984).

Since the present work mainly deals with suicides that have taken place within the hospital setting some aspects of psychological processes of suicidal behavior in inpatient settings should be commented. There is a vast literature but scarcely no empirical studies concerning the problems of clinical management of borderline patients in the psychiatric hospital. Severe regression when hospitalized is a characteristic feature, included as a diagnostic criterion in the DIB. Rage, narcissistic entitlement, poor impulse control and manipulative behavior tend to evoke serious negative reactions among the staff, sometimes leading to repressive or rejective actions from the staff stimulating further regressive behavior (Adler, 1973; Gunderson, 1984). Friedman has stated that the hospitalization per se tends to initiate, intensify and perpetuate regression and suicidal behavior (Friedman, 1969). The relation between these vicious circles of
destructive behavior and completed suicide have never been empirically studied.

2. GENERAL PURPOSES OF THE PRESENT STUDIES.

One main purpose is a further development and assessment of diagnostic instruments for personality disorders: the Diagnostic Interview for Borderline, the Structural Interview for personality organization and the Defense Mechanism Test. Some studies are replication studies while others are new pilot efforts within the field.

Another main purpose is to examine the validity of the borderline concepts with respect to descriptive and concurrent validity. Since previous empirical research emanate almost exclusively from an U.S. socio-cultural context, part of the studies are to be considered as cross-cultural replication studies. Concerning the psychodynamic diagnostic instruments and concepts previous research with an empirical methodology is very scant and the present studies represent to some extent new approaches.

Empirical data concerning completed suicides in BPD is almost completely lacking though suicidal behavior is a characteristic feature among these patients. The general purpose of the present study is to identify patients with BPD among psychiatric inpatients suicided 1961 to 1980 in the county of Västerbotten in order to describe treatment factors, demographic features and patient characteristics associated with completed suicides in BPD. The suicidal behavior will be analysed within the frame of borderline psychopathology rather than a frame of general suicidology.
3. SUBJECTS.

Somewhat different groups of subjects were utilized in different parts of the studies. Structural interviews could not be performed with all patients in the diagnostic study and other exclusions have been made in other studies for reasons that are explained in each paper.

3.1. Diagnostic study (paper I-III).

The diagnostic studies are based on a representative sample of 46 inpatients from short-term wards and rehabilitation wards in a sector clinic in the county of Västerbotten. Patients older than 65 years of age, patients with long-standing (> 2 months) severe psychotic symptoms and patients with organic syndromes were excluded. The exclusion criteria are likely to include all patients within the borderline realm but tend to include only less severely disordered schizophrenic patients.

3.2. The studies on suicide (paper IV-VII)

The suicided borderline patients (n=16) were identified from a population of all 145 psychiatric patients who suicided during psychiatric inpatient care or within six months discharge, during the period from 1961 to 1980 in the county of Västerbotten. In the first comparative study (paper VI) borderline patients suicided in the period from 1971 to 1980 (n=15) were compared to the DIB-positive borderline patients identified in the diagnostic study (n=15). In the second comparative study, which was made before the diagnostic material was fully collected, all suicided borderline patients 1961-1980 (n=16) were compared to all 11 DIB-
positive borderline patients identified so far in the diagnostic study.

4. METHODS.

4.1. Diagnostic/ scoring instruments.

The diagnostic Interview for Borderlines (DIB).

As further illustrated in table 3, the DIB is a semi-structured interview focusing on 29 items distributed in five areas of functioning. Additional questions are included to back up the scorings on each item, which is scored 0,1 or 2. The items are summed up for each section and transformed into section scores of 0,1 and 2. The five sections are further summarized to a total DIB score, where 7 or more indicates a borderline diagnosis. The DIB was translated and adapted into Swedish and a manual was developed (Kullgren, et al., 1985). A group of seven psychiatrists and psychologists with clinical experience were trained together according to the manual.

The structural interview.

The structural interview is a psychodynamic interview to identify the different levels of personality organization - neurotic, borderline and psychotic personality organization (Kernberg, 1977). The diagnostic criteria are shown in table 1. The interview technique requires psychotherapeutical training. It aims to assess the patient's capacity to handle various challenges such as clarification, confrontation with contradictory reports and interpretations of various depth. A specified format was developed to facilitate the diagnostic scorings centered around the diagnostic anchorage points of identity integration, level of defense mechanisms and reality
testing. Six psychiatrists and psychologists were jointly trained. The interviews were video/audio-taped for reliability estimation.

The Defense Mechanism Test (DMT).

The subliminal test DMT was developed by Kragh in the end of 1950s (Kragh, et al., 1970). It has been used in a variety of studies in Scandinavia (Smith, et al., 1982; Westerlund, et al., 1983) and is closely related to the international tradition of subliminal perception (Silverman, 1982). From a clinical point of view it represents an alternative to the Rorschach test. It is a projective test and theoretically it is based on psychoanalytic theory and a percept-genetic theory, postulating a parallelism between the ontogenetic development of the personality and the development of perception. The test consists of a TAT-like picture with a Hero to identify with and a threatening older person (the Other) in the background. The picture is presented tachistoscopically to the patient. The exposure time starts at 5 milliseconds and is increased in a geometrical series up to more than 2 seconds on the last exposure. The patient is asked to look into the tachistoscope and immediately after the stimulus presentation draw a simple picture of what he saw and give a short verbal account. This procedure is repeated for each of the exposures. The scoring of the test protocol follows a manual developed over a number of years. (Kragh, et al., 1984). Each picture from the patient is evaluated with respect to deviation from the stimulus picture. The deviations are assumed to represent attempts from the patient to manage the anxiety provoked by the pictures. All together more than 80 different signs are specified in the manual.
Luborsky developed the HSRS within the Menninger project (Luborsky, 1962). It is a scoring scale intended to rate the level of functioning on a health-sickness dimension. It consists of a global section and seven subdimensions covering various aspects of functioning mainly from an interpersonal context. It has been further evaluated by Luborsky and co-workers 1975. In the present work the HSRS is utilized to further define psychopathology in the comparative study of suicided and non-suicided patients (paper VI).

4.2. Statistics.

Among the parametrical statistical methods correlation coefficients and t-tests of the difference were used. Among non-parametrical statistical methods chi-square tests were used. Concerning estimation of inter-rater reliability on dimensions with few categories Finn's reliability estimate was used (Finn, 1970).

Paper VII is a comparative study between suicided and non-suicided borderline patients, which tries to identify a discriminating pattern among 35 psychological variables. The statistical method utilized in this study was Soft Independent Models of Class Analogies and Partial Least Squares (SIMCA/PLS). The method was originally developed in chemical research to separate chemical substances through identifying discriminating complex patterns of spectrophotometric properties (Wold, et al., 1983). SIMCA/PLS is especially apt to handle material with many variables and few objects, where complex patterns among the variables might be analysed. The technique is further described in paper VII.
4.3. Design.

Diagnostic studies (paper I-III).

In the diagnostic study (paper I) all patients (n=46) were diagnosed according to the DSM-III through clinical interviews and with access to extensive chart information. Independent interviews according to the DIB were performed by seven specially trained interviewers, who had no other information concerning the patients. An interview would last about 45 minutes. Half of the interviews (n=23) were video/audio-taped and scored by an additional rater for reliability estimation. All patients could not be reached for a structural interview according to Kernberg and 35 patients were diagnosed according to this instrument. The interviews were video/audio-taped and 9 interviews were further scored by an independent rater.

Data concerning age, sex and earlier psychiatric treatment were collected.

In paper II a slightly modified version of the DIB was utilized in order to make retrospective diagnostic scorings from chart material - DIB-R. The modifications concerned mainly the strictness of the time frames proposed in the original DIB. Four independent raters, divided into two groups, made scorings from chart material on 16 patients previously interviewed according to the DIB. Two raters were experienced psychologists and they received an introduction in DIB-scoring and two raters were psychologists in training who received no additional information besides the format of the interview.

In paper III all patients from study I, who could be reached for a DMT-test were included (n=31). All patients had been independently diagnosed according to DSM-III and the DIB. Three groups were created according to clinical diagnoses. Scorings were made on a 5-point
scale concerning identity-integration, level of defensive mechanisms, quality of internalized object relations and capacity of reality testing. Inter-rater reliability for such scorings has been demonstrated in previous work (Sundbom, et al., 1987a). Six specific and crucial DMT-signs were further recorded.

The studies on suicide (IV-VII)

In paper VI information from the National Central Bureau of Statistics (SCB) was collected, concerning all suicides from 1961 to 1980 in the county of Västerbotten (250,000 inhabitants). Of the 693 individuals who had committed suicide, a subgroup of 341 individuals could be identified as former psychiatric patients, and 145 patients had committed suicide during inpatient care or within 6 months of discharge. Some clinical records were incomplete and 134 patients entered the study. All patients were retrospectively diagnosed according the the DIB-R (paper II) and the DSM-III. Data concerning demographics, earlier psychiatric care and the circumstances of the suicides were collected from chart material that covered all earlier episodes of psychiatric care and from forensic protocols from autopsy. In paper V chart information was collected, concerning the patients who had committed suicide during inpatients care and who were identified as borderline patients according to the DIB-R (n=11). The cases were analysed with respect to demographics, suicide methods and treatment factors.

In paper VI and VII comparative studies were performed between the group of suicided patients identified by DIB-R and DIB-positive patients from the diagnostic study (paper I). A comparison was considered possible for three reasons; a high correlation between DIB-R and DIB had been demonstrated (paper II), two-thirds of the borderline suicides occurred during the late 1970s close to the diagnostic study and the groups
were matched in important respects. Demographics, earlier psychiatric care and suicidal behavior were compared (paper VI). The patterns of personality traits according to the DIB and health-sickness profile according to the HSRS were compared (paper VII).

5. RESULTS AND COMMENTS.

5.1. Diagnostic studies (paper I-III).

Concerning demographic features of the patients with BPD there was as expected a female dominance. In previous studies BPD patients older than 35-40 years are seldom reported but in the present study almost half of the borderline patients were older than 35 years of age at index-admission. The difference might be explained by patient selection in U.S. hospital settings versus a catchment area clinic.

Another more intriguing question is of course where are the older ones? McGlashan's follow-up study (on selected patients) covering 15 years indicate that the general outcome was good and 68% managed to work full time most of them living in heterosexual relationships. There seemed, however, to be a split in global outcome and half of them were in some kind of psychiatric treatment at follow-up. Completed suicides in the BPD group were not considered to be overrepresented (McGlashan, 1986). A reasonable suggestion or hypothesis would be that borderline patients with worse prognosis over time might suicide, develop a more serious affective disorders that covers their personality disorder or get into heavy drug abuse. Among borderline patients with better prognosis there might be a general tendency in BPD for the significant symptoms to fade away in the late middle-years, as suggested by Snyder (1983).

There were no age differences between patients with BPD, other personality disorders (OPD) and schizophrenic
disorders (SD). BPD patients had been less hospitalized in life-time than patients with SD but did not differ from patients with OPD. BPD patients had, however, more frequent and shorter admissions. Suicidal behavior (prior to index-admission) was most frequent among BPD patients. The DIB was cross-validated versus a clinical diagnosis of BPD according the the DSM-III, i.e. a 45 minutes semi-structured interview using the DIB was tested against a diagnostic judgement based on personal previous knowledge, clinical interviews and extensive additional information from the staff and chart material. Patients with BPD were clearly discriminated from patients with OPD and SD by mean of the DIB. The DIB-sections on impulsivity and interpersonal relations were the strongest discriminators. At a cut-off of seven or more in total DIB score, sensitivity was .81 and specificity 1.0. As in previous studies, the DIB thus emerged as less inclusive.

Inter-rater reliability of the DIB was calculated from a material of 23 video/audio-taped interviews. Reliability was excellent on total DIB score level (.92). This equals or exceeds previous estimates. On sections level, the scorings of the items from the affective section were less reliable, which has been proposed earlier (Frances, et al., 1986). The section includes items such as "anger" and "demanding attitudes" where scorings often must be based on the interviewer's experiences during the interview. Interestingly enough, items from the interpersonal sections, which operate at a very high level of inference, could be reliably scored in the present as well as in previous studies. In the respects mentioned, the DIB thus emerged as a valid and reliable diagnostic instrument.

To further clarify the relationship between all borderline concepts that are of current interest, the third concept of borderline personality organization (BPO) was included in the study. A format to make
scorings from the structural interview by Kernberg was developed and a pilot-study of inter-rater reliability showed that reliable scorings could be made with respect to critical diagnostic criteria such as identity integration, level of defense mechanisms and reality testing. The reliability of the overall diagnosis of borderline, neurotic and psychotic personality organization was .75. The BPO concept was very inclusive and half of the inpatients received this diagnosis. Half of the patients with BPO had received a diagnosis of BPD. Three out of 14 patients with BPD, however, received a diagnosis of neurotic personality organization.

An important conclusions from these findings as well as from a theoretical standpoint would be that BPO should be regarded as another diagnostic dimension rather identifying a level of personality functioning than a diagnostic syndrome entity. A major question concerning this diagnostic dimension is whether the concept of personality organization contributes to further validity. To what extent will different levels of personality organization in patients with a syndrome diagnosis of BPD predict response to treatment or outcome? Might this factor explain for the split in outcome in BPD demonstrated in the Chest-Nut Lodge study (McGlashan, 1986)?

Paper II is concerned with retrospective diagnosing from chart material, which would be a prerequisite to conduct the further studies on completed suicides in BPD. A slightly modified version (DIB-R) was tested on three sets of raters. Clinically experienced raters with adequate training could make reliable and valid DIB-scorings.

In paper III an attempt is made to study psychodynamically defined features among patients with BPD by means of a subliminal perception test called Defense Mechanism Test (DMT). In a previous work (Sundbom, et al., 1987a) a manual had been developed, by
which reliable scorings could be made of the crucial psychodynamic dimensions of the structural diagnosis according to Kernberg (Kernberg, 1981a): identity-integration, level of defense mechanisms, quality of internalized object relations and capacity for reality testing. The patients with BPD had homogeneous scores on all dimensions and differed from patients with other personality disorders and schizophrenic disorder.

To minimize subjective interpretation on a high level of inference which is part of the procedure in the ordinary clinical usage of the test, six specific DMT-signs as they are coded in the test protocol were utilized in the next part of the study. Some specific DMT-signs correlated significantly to borderline psychopathology according to the DIB scorings, and furthermore significantly discriminated patients with BPD from the other diagnostic groups. A general conclusion from the study is that patients with BPD show characteristic psychodynamic features on DMT adding support to the validity of the BPD concept. The findings are well in accordance with the conclusions from study I that BPD represents a core subgroup within the broad psychodynamic concept of BPO.

5.2. The studies on suicide (paper IV-VII)

Paper IV.

During the period from 1961 to 1980 145 patients committed suicide during inpatient care or within six months of discharge in the county of Västerbotten (250 000 inhabitant). Complete clinical records could be collected in 93% of the cases. The prevalence of different diagnoses over time is presented in figure 1. BPD was identified by the DIB-R (paper II) and axis I diagnoses were retrospectively made according to the DSM-III. The overall proportion of BPD was 12%. There was however an increasing number and proportion of BPD
patients over the time period studied. During 1976 to 1980 16% were borderline patients. According to previous studies from U.S. hospital settings and a previous study from the county of Västerbotten, the prevalence of BPD among psychiatric inpatients are estimated to 15% to 20% (Kullgren, 1984). A reasonable conclusion would thus be that borderline patients are not seriously overrepresented in the material. It might be suggested that, despite their extensive suicidal behavior, completed suicides during psychiatric treatment are not more frequent among borderline patients than among psychiatric patients in general. The same suggestion is put forward in the Chest-Nut Lodge follow-up study (McGlashan, 1986).

As further discussed in paper IV, the increase in number and proportion during the 1970s might have different explanations. Structural changes in psychiatry have probably recruited more borderline patients. There was an overall increase in all diagnostic groups of psychiatric suicides during the 1970s and an additional increase in proportion of BPD. The time period was characterized by instability; the old, highly structured and hierarchical mental hospital system was in an intense process of change. A more open ward climate and therapeutical community-models were introduced. As mentioned in the introductory, borderline psychopathology is characterized by regressive functioning and suicidal behavior in unstructured situations and these patients might be especially vulnerable to system changes.

Whereas half of the suicides in the overall material were inpatient suicides, two thirds of the suicides in BPD occurred within the hospital. Self-poisoning dominated as suicide method. This might be contrasted to the suicides among patients with major depression who predominantly took place outside the wards in hospital surroundings or on temporary leave from the hospital.
The fact that suicides among borderline patients more frequently occurred within the wards in close relation to staff draw attention to the importance of the interpersonal context in borderline suicidal behavior that was proposed in the introductory. To further elucidate this issue case analyses were performed on the eleven borderline patients who suicided during inpatient care (paper IV). Age ranked from 20 to 46 years and the vast majority of the patients had several months of previous hospitalization. In 3 cases suicides occurred within the two first weeks of their last admission, whereas the majority of the patients suicided after several weeks or months in hospital treatment.

An essay was made to identify events that was considered relevant to the suicides. In three cases there were dominant conflicts with close relatives, containing elements of rejection and imminent separation. In one case no seemingly relevant event could be identified. In the remaining cases factors in the treatment were judged to be of importance. These factors might be characterized as repressive or rejective behavior from staff possibly stemming from counter-transference problems. There is of course no reliable method to identify such a phenomenon from chart material and one will have to rely on subjective judgements. An example of an event scored as repressive was heavy medication forced upon a patient despite serious side effects. When reading the sometimes very extensive clinical records a specific type of rejective behavior from staff was identified. In five out of the eleven cases, an involuntary discharge was being planned despite the patients' explicit wish to stay in treatment. The reasons for discharge, as stated in the records, varied. In some cases the patients were
considered to aggravate their symptoms deliberately and in other cases further treatment was considered meaningless, since the patients so far had not benefited from the treatment. As illustrated in paper IV such an event could not be identified among any of the admissions in a control group of non-suicided borderline patients. A clinical impression from the chart material was that the staff had severe difficulties in handling or tolerating the suicidal behavior and demanding attitude demonstrated by the patients.

It is interesting to note that some authors have recommended mandatory or involuntary discharges to prevent borderline patients from further regressive and suicidal behavior when hospitalized (Friedman, 1969). At a first glance the present findings might strongly speak against such actions. However, Friedman discussed in his paper the treatment of borderline patients in units especially designed for patients with severe personality disorders. The short and long term wards in the present setting were units mainly designed for the treatment of psychotic disorders and the staff was mainly unfamiliar with the borderline concept and its psychopathology. In addition, because of geographical reasons mainly, there was no aftercare planned for most of the patients. It is likely that these circumstances make a mandatory/involuntary discharge more noxious and likely to be dictated by aggressive counter-transference feelings from the staff.

Some clinical guidelines might be suggested from the study. A correct diagnostic judgement is of utmost importance. The identification of a borderline personality disorder might prevent misjudgments concerning the severity of the disorder and direct the attention towards the interpersonal difficulties that are likely to occur in the treatment. Psychological supervision should be available to identify and handle possible counter-transference problems. Mandatory or involuntary discharges of borderline patients should be
handled with utmost care and avoided in treatment units who lack the specific competence in treating severe personality disorders.

Paper VI.

The diagnostic studies and the epidemiological suicide study create the opportunity to further analyse factors associated with completed suicides in borderline personality disorder by means of a comparative study. Diagnostic scorings according to the DIB can be made from chart material with satisfactory reliability and are highly correlated to scorings from actual interviews (paper II). Both the suicided group and the non-suicided borderline patients who were controls, are considered representative. There is an acceptable time lag between the index-admissions in the control group and the suicided group; the majority of the suicides occurred during the end of the 1970s and the diagnostic study was initiated in 1982. In the first comparative study (paper V), demographic profiles, suicidal behavior and earlier psychiatric care were analysed. There are several pitfalls in interpreting the results. Even if the groups are considered representative, the samples are small. Apart from statistical bias, the possibility of co-variance has to be taken into account. Age, sex and age when first in contact with psychiatry did not differ between the suicided and non-suicided patients. However, the suicided patients had more previous hospitalization. They had furthermore shown more suicidal behavior in their life time history and prior to their last admission. Eleven out of fifteen suicided patients were hospitalized because of suicidal behavior compared to two out of thirteen in the control group. A specific and unique event was identified from the records of the suicided patients: in five out of fifteen cases earlier suicide attempts had occurred during psychiatric inpatient treatment. No such event
had occurred during previous hospitalization among non-suicided patients.

Though the suicided patients had a slight tendency towards greater severity according to one of the subdimensions of the Health-Sickness-Rating-scale by Luborsky, the overall scorings did not imply that the suicided patients were more globally disabled. It thus seems likely that their more extensive previous hospitalization resulted from more extensive suicidal behavior. Considering the suggestions by Friedman that hospitalization generates suicidal behavior, it might be questioned whether lengthy hospitalization is a risk factor per se. The absolute majority of the suicides occurred after several months of treatment and as discussed in the case analyses (paper IV) counter-transference problems from the staff might have been of importance.

When scorings from the DIB sections were compared between the groups, depressive traits, anger and hostility turned out to be more prevalent among the suicided patients. However, concomitant axis I affective disorders were equally frequent in both groups. As demonstrated in paper IV BPD did not seem to be seriously overrepresented among patients who commit suicide during psychiatric treatment, despite the fact that suicidal behavior is a common feature among borderline patients. However, among borderline patients extensive suicidal behavior seem to be a strong denominator for completed suicides. That is, suicidal behavior among borderline patients includes a true suicidal dimension, which should not be neglected in the clinical management.

Paper VII.

The findings from the previous studies (paper IV-VI) suggested that completed suicides were likely to occur among borderline patients in both sexes and all
Extensive hospitalization and earlier suicidal behavior were factors associated to completed suicides. From the case analyses it was further suggested that counter-transference problems among the staff were of importance. In the next step it seemed reasonable to investigate whether specific psychopathological traits were associated with completed suicides. In paper VI the scorings from DIB sections were compared between the groups. Depression, anger and hostility seemed to be more frequent traits among the suicided borderline patients but no significant differences were identified. It was a general clinical impression that the suicided patients were more severely disturbed, but this was not confirmed by the scorings from the Health-Sickness-Rating-Scale.

It seems likely that a complex pattern of psychopathological traits rather than a single marker would have discriminating power. From the previous studies we had access to reliable scorings on 29 DIB items, 5 section scores and 8 dimensions in the Health-Sickness-Rating-Scale. The samples were representative but small. A statistical method was needed that could identify unique patterns among many variables for relatively small subsets of patients. Such a technique has been developed by Wold and co-workers (1983) in chemistry research and the present study is a pilot-essay to apply this method in a new field. It is basically a principal components analysis which has been further developed. The developments are called Soft Independent Modelling of Class Analogies (SIMCA), which analyses the similarity within subgroups and Partial Least Square Analysis (PLS), which relates a set of variables to another set of variables.

In a first step an overall principal components (PC) analysis was made from the DIB-variables and the HSRS-variables among both groups of patients. Three significant PC:s were identified. From the PC:S a three-dimensional space might be created and both patients and
variables might be located within this space. A natural grouping occurred, seemingly separating the the groups of suicided and non-suicided patients. In the next step PC-components were analysed in each subgroup. The idea of SIMCA is to construct a unique pattern for each class based on the similarities within the class. It is furthermore possible to calculate each patient's distance from the two class models of non-suicided and suicided patients, respectively. In the study it was evident that the class-models discriminated between the two groups. Only one suicided patients could be characterized by both models.

In a third step a discriminant analysis by means of PLS was performed. For this purpose all variables were regressed upon a dichotomous dummy variable representing completed suicide or not. The result of the discriminant analysis was one significant PC accounting for 78% of the variance in the dummy variable designating the groups. It was, thus, obvious that the the pattern among the variables from the DIB and the HSRS significantly differed between suicided and non-suicided patients. In addition, we tried to validate the suicided class model by creating a reference set. That is, the class model was based on all suicided patients but two, who were randomly selected as test patients. The test patients fitted well in the suicided class model.

However, it is not easy to translate the findings into easily recognizable clinical description. It has to be remembered that it is the pattern of scores on all variables that are discriminating. One way of expressing discriminating characteristics is to present the PC-loadings of the variables contributing to the separation of the two groups. Compared to the suicided patients, the non-suicided patients were characterized by intensity in interpersonal relations, high social activity and tendency to cause identifiable counter-transference reactions among others. The non-suicided
patients had more "negative" traits such as unstable school/work situations, antisocial behavior and drug abuse. The interpersonal relations as scored from the HSRS were less severely disturbed.

The interpretation of these findings in a clinical context is a complicated task. A tentative suggestion would be that the common characteristic factor among the suicided patients was "lack of interpersonal attachment". In the light from the previous findings a further tentative explanations would be that antisocial traits, drug abuse and less capacity to emotional involvement could make these patients more susceptible to rejective or repressive actions from significant others, including the staff. Non-suicided patients were more likely to create intense and unstable relations and counter-transference problems were identified in the DIB. These features might include a capacity to attach and communicate, which might be a preventive factor.

There are reasons to question the generalizability of these findings, which should be considered a pilot study focusing on the possibility to identify unique patterns among several variables by means of SIMCA/PLS. The most intriguing finding was the clear separation between suicided and non-suicided patients with respect to psychological variables, which should stimulate further reproduction studies.

6. SOURCES OF ERROR.

Small sample size constitutes the main possible source of error. The procedure of selection of the suicided patients makes this group highly representative. The non-suicided patients in the diagnostic study were not truly randomly selected. The procedure, however, makes it very likely that patients within the borderline realm are representative even though the patients with schizophrenic disorders were less representative. Concerning the suicide studies it
is obvious that a prospective design would be preferable but for obvious reasons less possible. Concerning the difficulties of retrospective diagnosing, they are compensated by the methodological pre-study (paper II). However, it is quite clear that the case analyses in paper V are based on sometimes very subjective interpretations concerning clinical aspects of the treatment processes. Nevertheless, it was considered important to present and discuss these partly impressionistic findings to stimulate further research concerning the clinical management of suicidal borderline patients. Subjectivity is not just a source of error.

The second comparative study (paper VII), concerning PLS/SIMCA-analyses of differences in psychopathological patterns, suffers from limitations due to sample size and selection of patients and there is furthermore no previous experience with this method in psychological/psychiatric research. The findings should be interpreted with utmost caution but the study might hopefully serve to stimulate further research in the same direction.

7. GENERAL CONCLUSIONS.

-Inter-rater reliability was found satisfactory for the diagnostic interview for borderline (DIB) both when utilized as a clinical interview and as a chart scoring instrument. The psychodynamic concept of borderline personality organization (BPO) can be fairly reliably diagnosed from the Structural Interview.

-BPO is a very inclusive dimensional concept covering not only most patients with BPD but in addition patients with a wide variety of personality disorders and axis I syndromes. BPO should be conceptualized as a level of personality functioning with respect to psychodynamic intrapsychic features.
By means of a percept-genetic test (Defense Mechanism Test) reliable scorings can be made on crucial psychodynamic personality dimensions. Some basic test variables correlate to degree of borderline psychopathology as well as specific interpersonal difficulties and suicide attempts.

BPD is a homogeneous and specific diagnostic category with respect to psychodynamic features as identified by the Defense Mechanism Test compared to patients with other personality disorders or schizophrenic disorder.

Patients with BPD are not seriously overrepresented among patients who commit suicide during psychiatric care even though their number and proportion have increased during the time period from 1961 to 1980.

Factors associated with completed suicide among patients with BPD are male sex, extensive earlier hospitalization, frequent earlier suicidal behavior, antisocial traits and a symptom pattern indicating a less intense interpersonal attachment. In addition, repressive or rejective elements in treatment seem to be of importance.
Table 1. Diagnostic guidelines for personality organization according to Kernberg

<table>
<thead>
<tr>
<th>Identity integration</th>
<th>Neurotic</th>
<th>Borderline</th>
<th>Psychotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-representations and object representations are sharply delimited</td>
<td>Integrated identity; contradictory images of self and others are integrated into comprehensive conceptions</td>
<td>Identity diffusion; contradictory aspects of self and others poorly integrated and kept apart</td>
<td>Self-representations and object representations are poorly delimited, or else there is delusional identity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Defensive operations</th>
<th>Neurotic</th>
<th>Borderline</th>
<th>Psychotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repression and high-level defenses: reaction formation, isolation, undoing, rationalization, intellectualization</td>
<td>Mainly, splitting and low-level defenses: primitive idealization, projective identification, denial, omnipotence, and devaluation</td>
<td>Defenses protect patients from disintegration and self-object merging. Interpretation leads to regression</td>
<td></td>
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<tr>
<td>Defenses protect patient from intrapsychic conflict. Interpretation improves functioning</td>
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<tr>
<th>Reality testing</th>
<th>Neurotic</th>
<th>Borderline</th>
<th>Psychotic</th>
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</thead>
<tbody>
<tr>
<td>Capacity to test reality is preserved—differentiation of self from nonself, intrapsychic from external origins of perceptions and stimuli</td>
<td>Capacity to evaluate self and others realistically and in depth</td>
<td>Alterations in relationship with reality and in their feelings of reality</td>
<td>Capacity to test reality is lost</td>
</tr>
</tbody>
</table>

Table 2. Diagnostic criteria for borderline personality disorder according to DSM-III.

The following are characteristic for the individual's current and longterm functioning, are not limited to episodes of illness, and cause either significant impairment in social or occupational functioning or subjective distress.

A. At least five are required:

1. Impulsivity or unpredictability in at least two areas that are potentially self-damaging, e.g. spending, sex, gambling, substance 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 one's own ends).

3. Inappropriate, intense anger or lack of control of anger, e.g. frequent displays of temper, constant anger

4. Identity disturbance manifested by uncertainty about several issues relating to identity, such as self-image, gender identity, longterm 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 few hours and only rarely more than a few days, with return to normal mood

6. Intolerance of being alone, e.g. frantic efforts to avoid being alone, depressed when alone

7. Physically self-damaging acts, e.g. suicidal gestures, self-mutilation, recurrent accidents or physical fights

8. Chronic feelings of emptiness or boredom

B. If under 18, does not meet the criteria for Identity Disorder.
<table>
<thead>
<tr>
<th>Section</th>
<th>Patterns</th>
</tr>
</thead>
</table>
| **SECTION I: SOCIAL PATTERN** | 1. Instability in work/school  
2. Special achievement  
3. Active social life  
4. Appropriate surface behaviour |
| **SECTION II: IMPULSE PATTERN** | 5. Slashed wrist, self-mutilation  
6. Manipulative suicide threats  
7. Drug abuse  
8. Promiscuity, sexual deviance  
9. Antisocial impulsive acts |
| **SECTION III: AFFECTIVE PATTERN** | 10. Depression  
11. Anger  
12. Demanding, entitled  
13. Chronic dysphoria  
14. Appears flat, has been elated (NEG) |
| **SECTION IV: PSYCHOSIS PATTERN** | 15. Experiences derealization  
16. Experiences depersonalization  
17. Brief psychotic depressed episodes  
18. Brief paranoid experiences  
19. Drug induced psychotic episodes  
20. Hallucinations/delusions (NEG)  
21. Manic episodes/delusions (NEG) |
| **SECTION V: RELATION PATTERN** | 22. Regression in therapy  
23. Avoids being alone  
24. Socially isolated (NEG)  
25. Conflicts giving/receiving care  
26. Intense unstable relationships  
27. Devaluation, hostility  
28. Dependency, masochism  
29. Staff splitting |
Figure 1. Number of suicided patients in different diagnostic categories 1961 to 1980.
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REFERENCES


Kernberg O (1975) Borderline conditions and pathological narcissism, Jason Aronson, New York.


