FAMILIAL FACTORS IN BIPOLAR DISORDER

A thesis

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by

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* * * * *

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CHAPTER I
INTRODUCTION

Mood alterations are experienced to some extent in normal individuals. Individuals diagnosed as having bipolar disorder, however, experience these alterations in intensity as they shift between manic and normal, manic and depressed, or manic, normal, and depressed episodes (Sands, 1985). According to the DSM-III (American Psychiatric Association, 1980), the impairment associated with this disorder occurs in both social and occupational functioning. In addition, impairment in the manic episodes may lead to a need for protection due to the consequences of poor judgment or hyperactivity.

In a manic episode, the prevalent mood is that of elevation, expansiveness, or irritability (American Psychiatric Association, 1980). The elevated mood can be described as euphoric, cheerful, or high. Incessant and indiscriminatory enthusiasm for interacting with people and other aspects of the environment characterize the expansiveness. Irritability can also be experienced in a manic episode, especially when the individual is frustrated.

Symptoms involving speech are prevalent in the manic episode. Clients may exhibit rapid switch from one topic to another (flight of ideas), unusual speech patterns (puns, rhymes, clanging), swift, loud, or abusive speech (American Psychiatric Association, 1980).
High activity level, a decreased need for sleep, and unselective sexual behavior may also be present. Distractability is usually apparent along with an inflated self-esteem. A manic mood may be expressed with grandiose delusions. When delusions or hallucinations are present, they are usually consistent with the predominant mood (mood-congruent).

In a depressive episode, there is either a dysphoric mood or a loss of interest or pleasure in all or almost all usual activities or pastimes (American Psychiatric Association, 1980). Withdrawal from friends or family is common. Other symptoms include appetite disturbance, a change in weight, sleep disturbance, psychomotor retardation, a decrease in energy level, feelings of worthlessness or guilt, difficulty concentrating, and thoughts of death or suicide.

Thus, the unipolar-bipolar affective disorder distinction is made by clinicians on the basis of an individual's history of ever having had a manic episode. Some authors on the subject (e.g. Lewin, 1950, cited in Cohen et al. 1954) view the mania in bipolar disorder as a defense against depression. In their study of ego defense patterns in bipolar disorder, Albon et al. (1974) concluded that it was not possible to distinguish between patients with unipolar and bipolar disorder on the basis of defensive patterns. They did, however, report that unipolar patients appeared to use more hypochondriacal and somatic defenses when under stress than did the patients with bipolar disorder. Furthermore, before coming out
of a state of mania, patients with bipolar disorder tended to
demonstrate more of these somatic and hypochondriacal defenses.
According to the authors, this is a move away from the most
primitive defense pattern, the narcissistic, in which the chief
defenses are denial, projection, and distortion.

Statement of Purpose

The purpose of this study is to explore the relationship
between bipolar disorder and environmental factors. If such a
relationship exists, this study will speculate as to whether it is
present with patients with certain demographical characteristics or
characteristics of the illness. A more specific statement of
objectives will be presented in Chapter two.
CHAPTER II

LITERATURE REVIEW

Biogenetic Theories

Although psychoanalytic and family interaction theories were popular in the past, the current literature reflects a biogenetic theory on the etiology of bipolar disorder (Sands, 1985). The most convincing evidence of a biological etiology of bipolar disorder is the effectiveness of the drug lithium. Lithium had been used in medical facilities in an attempt to treat gout, epilepsy, and as a salt substitute for low salt diets before its psychoactive properties were discovered by Cade, an Australian psychiatrist, in 1949 (Spring, 1976). Due to the simultaneous introduction of phenothiazines, this discovery was not emphasized until the mid-fifties. One early assessment was that patients with bipolar disorder responded better to lithium than those with unipolar depression (Spring, 1976).

It appears as if lithium is the drug of choice for the treatment of mania (Spring, 1976). Continuous treatment with lithium is the most effective remedy for bipolar disorder. Tricyclics can be added with the detection of depressive components and then discontinued.

According to Spring (1976), even the most positive reports of patients with bipolar disorder who take lithium suggest a 20-30
percent failure rate. A review by Weiner et al. (1977) concludes that whether chronicity is measured by symptoms, social decline, or both, one-fourth to one-third of manic-depressive patients treated with lithium appear chronically ill. Furthermore, the authors note, some patients who are not chronically ill suffer a permanent decline in social and occupational status as a result of repeated episodes and hospitalizations. There may be a trend in which those with a positive family history of bipolar disorder respond more favorably to lithium (Mendewicz et al., 1973; Spring, 1976). Nevertheless, it is difficult to discriminate between genetic and environmental factors within families.

Recently, polymorphic DNA markers have been used to systematically search, using linking methods, for genetic mutations causing bipolar disorder (Hodgkinson et al., 1987). Egeland et al. (1987) revealed that in one large Amish family a gene predisposing relatives to bipolar disorder lies close to the two marker genes on chromosome 11. Nevertheless, Hodgkinson et al. (1987) in the study of three Icelandic families, and Detera-Wadleigh et al. (1987) in a study of three North American pedigrees, did not find evidence of linkage to these markers. Hodgkinson et al. (1987) and Detera-Wadleigh et al. (1986) suggest that there is genetic heterogeneity of linkage in bipolar disorder. Thus, the attempt to identify specific loci for genes productive of bipolar disorder has had primarily negative results (Detera-Wadleigh, 1987).
Research on the biological etiology of bipolar disorder has led some authors (Hays, 1976; Helzer & Winokur, 1974; and Taylor & Abrams, 1981) to believe that two groups of patients with bipolar disorder exist. One group consists of patients with an early onset of bipolar disorder, that is patients who have episodes before 30 years of age. According to the literature, this group of patients is much more likely to have a positive family history for all affective disorders than patients with a late-onset for bipolar disorder. Taylor and Abrams (1981), found that the morbidity risk in first degree relatives for all affective disorders was three times as great for patients with an early onset of bipolar disorder. Alcoholism, drug abuse, and sociopathy are also more prevalent in the first degree relatives of the group of patients with an early onset of bipolar disorder (Helzer & Winokur, 1974).

On the basis of these findings, many clinicians and researchers have concentrated on a biological theory of bipolar disorder. This focus has developed despite the fact that many patients who are prescribed lithium are not successfully treated. Furthermore, even if a specific gene link to bipolar disorder were established, not all individuals who inherit the gene will develop the disorder (Egeland et al., 1987). In fact, Egeland et al. (1987) suggest that studies be designed to look at the interaction between genetic and environmental factors influencing the onset of bipolar disorder.
Psychoanalytic and Environmental Theories

Environmental events can be considered as possible precipitants of affective episodes. According to Dunner et al. (1979), these may include stress in interpersonal relationships, such as bereavement, social factors, arguments with a spouse, and marital separation. Work may be another area in which stressful events such as a change in work conditions, problems in job performance, and increased work responsibility can occur. In their study, Dunner et al. (1979) found that about one-half the patients who had been hospitalized at least once for mania and had been classified as having bipolar disorder reported stressful life events before the initial episode. Furthermore, 12 of the 79 patients studied reported life events before subsequent episodes; seven of these patients had not reported life events at the onset of the illness. The authors suggest that there may be a genetic-environmental interaction in the onset of the symptomatology of bipolar disorder. They also offer the possibility that life events may be randomly related to the onset of the illness. Dunner et al. (1979) concluded that environmental stresses should be carefully evaluated in future research.

Cohen et al. (1954) reviewed the psychoanalytic theories of bipolar disorder. Accordingly, Abraham (1911) was the first to systematically apply psychoanalysis to those suffering from bipolar disorder. He conclude that both manic and depressive episodes were controlled by the same conflicts and that the depressive episodes represented defeat by the conflicts, while the manic episodes
represented ignoring and denying the conflicts. He theorized that these conflicts originated in the oral stage. Cohen et al. (1954) also reviewed Lewin's (1950) theory that the manic state is a defense against depression. He suggested that both states resist reality-testing since the separation of true from false which occurs in reality-testing is replaced by moral testing, the separation of good from bad.

Cohen et al. (1954) also reviewed Freud's psychoanalytic theory of bipolar disorder. According to Freud, mood swings of normal and neurotic people are an outcome of conflicts between the ego and ego ideal, what the person would like to be. However, according to Freud, a person suffering from bipolar disorder experiences this conflict more intensely due to a frustrated or lost object. This object is re-established through identification by the ego against which the ego ideal rebels. According to Freud, the manic episode signifies a reunion between the ego and ego ideal which is reflected by self-inflation.

**Family Interaction Theories**

Since psychoanalysts saw affective disorders as being influenced by the infantile loss experience, Albon et al. (1975), suggest that certain factors must be present in an intact marriage of a manic patient. They propose that these factors must be present to compensate for the destructive impact of the manic behavior as well as the narcissistic hunger and ego defects. In their study
from two post-hospital psychotherapy groups, the authors used eight couples who were married 12-34 years. One spouse had been hospitalized at least once for an acute manic episode. Patients were diagnosed as having bipolar disorder.

Five major themes emerged in treatment. One such theme was the threat of recurring mania. The authors interpreted that the patients needed to blame spouses for their illness or when they lost control, as the spouse was to be omnipotent and omniresponsible. Thus, being "ill" again or manic was a mutually accepted way of explaining away many feelings and ideas. Hostility between spouses was another theme, as the spouse often perceived the patient as having control over the manic episode, while the patient often saw him/her self as a victim. Anger was often not expressed due to fear of this emotion. Massive denial about issues of loss and in the communication styles between spouses were evident, and symbiosis and dependence were common themes (Albon et al., 1975).

The authors found that the lack of ego boundaries between spouses also extended to their children. Couples often focused on their children rather than their marriage because attending to the former was less threatening to their marital relationship than the latter (Albon et al., 1975). Another common theme, which was also present in a 1974 National Institute of Mental Health follow-up study, was that of a weak or absent father. For both male and female patients with bipolar disorder, it was common to lose fathers for periods exceeding six months before the age of 16 through death,
parental divorce, separation, prolonged military service, or
business reasons. Albon et al. (1975) report that patients denied
the significance of these early losses.

Studies such as that by Albon et al. (1975) and Merikangas
(1984), suggest marital turmoil and divorce in the spouse subsystem
of patients with bipolar disorder. One can assume that the family
may be affected by this disorder.

As a result of studying 12 patients with bipolar disorder,
Cohen et al. (1954) proposed a family interaction theory of bipolar
disorder. In review of these cases, Cohen et al. (1954) found that
each family was somehow separated from the social milieu by some
factor which caused this family to be "different." In many cases it
was the fact that the family belonged to a minority group such as
that of Jews. In other families there was a difference in their
economic level. All 12 families were found to be extremely aware of
this difference. According to Cohen et al. (1954), the family would
first try to improve their acceptance into the social milieu by
fitting in, and secondly by raising the family's economic level or
winning some status of honor or accomplishment.

In both patterns the children were expected to conform to a
high standard of good behavior which was based on the parents' own
idea of what others expected. The parents' own standards may have
been poorly conceptualized. In many of the cases, Cohen et al.
(1954) found that the child who later developed bipolar disorder had
the burden of raising the family's status. This burden may have
fallen upon them because they were the brightest, the best looking, or in some other way the most gifted. Other possibilities were that they were the oldest, the youngest, or only son or daughter.

In their study, Cohen et al. (1954) found that the mother quite frequently was the member of the family demanding the winning of prestige. The mother was usually the stronger, more determined parent, while the father was usually weaker, and his failure may have caused the family's situation. The mother also tended to blame the father for weakness or lack of ambition which she perceived as causing the family's situation. Cohen et al. (1954) hypothesize that this blame may be due to the traditional expectation in our culture that the father determine the family's prestige. The fathers also tended to blame the mothers for their coldness and contemptuousness.

The patients often thought of their fathers as weak, but lovable. They considered their fathers' failures in comparison to the status that the family should have achieved. The patients viewed the mother as the reliable one. The attitude of the mother toward the father served as an example of what would happen if the child failed to live up to the standards set by the mother.

Since patients suffering from bipolar disorder seem to mobilize defenses that preserve awareness of self as distinct from others, Cohen et al. (1954) hypothesize that the mother enjoyed the infant's dependence and that early growth of independence was threatening to her. About the end of the first year, according to Cohen et al.
(1954), the loving mother would rapidly change into a harsh and punitive figure. Therefore, the child would find it difficult to integrate the early good mother and later bad mother into a whole person.

Since the family is trying to acquire and maintain prestige, Cohen et al. (1954) suggest a high degree of family cohesion. Therefore, the patient, who may be the best endowed child, may unconsciously try to prevent the envy of his or her siblings since he or she may be unconsciously afraid of this envy. Furthermore, because patients may have been pushed very early into accepting unusual responsibilities, as the patients grow up, they may be extremely sensitive to both envy and competition. They may counteract this envy by underselling themselves or becoming extremely helpful to siblings and other group members later on, according to Cohen et al. (1954).

Cohen et al. (1954) found further that the adult patient with bipolar disorder may demand love, attention, services, and possessions from others with whom they have interpersonal relationships. Nevertheless, the patients may lack reciprocity in their relationships. Cohen et al. (1954) attribute this to the fact that interpersonal relationships have been fixated to where the child recognizes the self as separate from others, but does not see others as complete human beings. Due to deficient development, the patient may see others as entities who are now good, now bad, and
must be manipulated. Cohen et al. (1954) suggest the need for empirical research on their family interaction theory.

A more recent study by Davenport et al. (1979) explored six families in which bipolar disorder was present for at least two generations. They found common themes of the six families including absence of the father during critical developmental states; loss; multiple parenting; domineering; depressed, and withholding mothers; and cohesiveness within the family that encourages family interdependency and prevents corrective experiences. Thus, Davenport et al. (1979) viewed the family as a closed system that demanded perfectionism and did not have the availability of a corrective experience.

Moos and Moos (1981) studied distressed families, those in which there was one or more "dysfunctional" member. These families were found to have less cohesion and expressiveness and more conflict. They were also seen as less well-organized, less oriented to independence, achievement, religious activities, and less concerned with intellectual and recreational pursuits. Thus, Moos and Moos (1981) describe a different pattern than that which has been described elsewhere about families in which one member has bipolar disorder. Nevertheless, they do propose that the nuclear family's social climate is influenced transgenerationally by each spouse's family of origin.

According to Minuchin (1980), if a family member becomes seriously ill, some of his functions and powers must be distributed
to other family members. An illness, whether physical or mental, can affect the family. An example of a physical illness affecting the family is that of a heart condition. Wishie et al. (1971, cited in Thoreson & Ackerman, 1981) found several themes in the families of patients who had suffered a myocardial infarction. Those themes which were found specific to the patients include the following: 1) feelings of helplessness and dependency; 2) change (decrease in frequency) in sex life since heart attack; and 3) angry feelings. Among the spouses, the themes include: 1) the need to be responsible in feeding and protecting the husband; 2) a heavy burden; 3) anxiety about the husbands; and 4) anxiety about the future. The offspring of the patients demonstrated increased scores on the MMPI on the hypochondriasis, depression, and hysteria scales as compared with a control group.

According to Adsett et al. (1968, cited in Thoreson & Ackerman, 1981), the patient may control the family since other members may be afraid that expressing feelings would produce cardiac symptoms. This theme is similar to that of patients with bipolar disorder and their families, as Waters et al. (1980) concluded.

Objectives

A review of the recent literature reveals that the biological etiological theory of bipolar disorder has been stressed, and other theories have been minimized. For example, a leading textbook in psychiatry, The Modern Synopsis of Comprehensive Textbook of Psychiatry IV (Kaplan & Sadock, 1985) does not even mention a family
interaction theory of bipolar disorder. The fact that bipolar disorder is more prevalent among family members than in the general population (American Psychiatric Association, 1980) has been used to support a genetic etiological theory; nevertheless, a family interaction pattern could also be a factor in the recurrence of bipolar disorder in subsequent generations.

The purpose of this research is to explore the family interaction pattern of patients with bipolar disorder. If such a pattern does exist, this research seeks to determine whether it is similar to that described by Davenport et al. (1979) or that which Moos and Moos (1981) describe. Furthermore, if a pattern does exist, this study will determine if such a pattern is related to factors of bipolar disorder such as early onset and a family history of bipolar disorder.

Finally, this research will assess whether there is a pattern common among families with a chronically ill member, such as one having a heart condition, or whether the family pattern seen in bipolar disorder is unique. For patients with bipolar disorder and those with a heart condition, the self-perceptions of current social adjustment will be studied.
CHAPTER III

CONCEPTUAL FRAMEWORK

The conceptual framework from which this research will be approached is that of a structural, multigenerational view of families. This framework assumes that individual psychic life does not exist in a vacuum; rather the individual influences and is influenced by his or her context through interactions (Minuchin, 1980). Psychopathology may exist within the patient, in the social context, or in the feedback between them.

Family structure is the implicit set of functional demands that organizes the ways in which family members interact (Minuchin, 1980). A family is a system that operates by means of transactional patterns, and repeated transactions determine patterns of how, when, and to whom to relate. These transactional patterns control family members' behaviors, and they are maintained by two systems of constraint (Minuchin, 1974). The first system is generic and involves universal rules which govern family organization. The second system is idiosyncratic to the family and involves mutual expectations of particular family members.

The boundaries of a subsystem of a family system define who participates and how (Minuchin, 1980). According to Minuchin (1980), for a family to be functional, the boundaries of a subsystem must be clear. Thus, the child subsystem must have a clear boundary
to separate it from the parent subsystem. In some families, boundaries are blurred. According to Minuchin (1980), this lack of a subsystem differentiation or enmeshment, increases a sense of belonging, but it may decrease autonomy for individual members. Families may also develop overly rigid boundaries or become disengaged (Minuchin, 1980). In an extremely disengaged family, communication across subsystems is difficult, and only a high level of individual stress has enough impact to activate the family's supportive systems. Family functioning at the extremes of enmeshed and disengaged interactions may indicate pathology.

Cohen et al. (1954) and Davenport et al. (1979) raised hypotheses similar to that of enmeshment. They viewed the families of patients with bipolar disorder as being so cohesive that internal corrective experiences were prevented.

Transactional patterns of a family are influenced transgenerationally (Boszormenyi-Nagy & Spark, 1973; Bowen, 1978; Moos & Moos, 1981; Satir, 1983). According to Bowen (1978), this occurs through the family's projection process, or the basic process by which parental problems are projected onto the children. This process may begin with parents having a low level of differentiation, or self, and the family may focus maximal attention on one child. This assumption is similar to that of Cohen et al. (1954) who postulated that families of manic-depressive persons focus on one child in order to raise the family's prestige. Bowen (1978) proposed that this pattern may occur over several
generations, and, eventually, a child will be produced who is so impaired, both physically and emotionally, that he or she will become dysfunctional (e.g., schizophrenic) at any effort to survive outside the family. According to Bowen (1978), in any one generation, the family projection process may include a maximally involved child who has a lower level of self than the parents. A minimally involved child may have the same level of self as the parents, and children relatively outside the process may emerge with higher levels of self than parents (Bowen, 1978).

Boszormenyi-Nagy and Spark (1973) also contend that certain families carry easily recognized multigenerational patterns of relationships. The authors propose that the major connection between the generations is that of loyalty based on the integrity of reciprocal indebtedness. Satir (1983) examines the three generational family to observe implicit and explicit rules.

In this research, a structural, multigenerational view will be taken. The family environment of adults with bipolar disorder will be examined. Spouses and children will provide information on the subject's family of procreation. Additional data about the family of origin will be obtained from case records.
CHAPTER IV

METHOD

Subjects

Two groups of white adult men and their families with chronic illnesses were studied in order to determine family environment factors associated with bipolar disorder. One group consisted of seven adult, male patients with a DSM-III (American Psychiatric Association, 1980) diagnosis of bipolar disorder. In addition, the spouse (or partner) and one child over the age of 12 participated. Six patients in this group were participating in lithium groups at the Columbus Veterans Administration Outpatient Clinic, and one patient was receiving treatment at The Ohio State University Outpatient Psychiatry Clinic.

The comparison group consisted of seven adult, male patients in treatment at the Columbus Veterans Administration Outpatient Clinic for a heart condition. For each of these patients, the spouse (or partner) and one child 12 years of age or older also participated. This group was used in order to determine whether the family interactional pattern which may be observed in the bipolar group can be differentiated from the family interactional pattern that occurs in another chronic illness, such as heart condition.

All subjects were required to be members of a family which satisfies the census definition of families, that is, they are
formed by marriage or convenience. At least one child 12 years of age or older had to be available for participation in the study by completing a questionnaire. In several families more than one child was available to participate, and in several families the only available child withdrew from the study. If patients had children who were living both in and out of the home, those residing in the home were asked to participate. Thus, this sample was purposive, and it consisted of voluntary subjects who satisfied these criteria and whose families agreed to participate.

The initial plan was to obtain a sample of 25 subjects. The criteria were described to the nurse working with the lithium groups at the Veterans Administration Outpatient Clinic who compiled a list of 28 patients of which 21 were determined eligible by the researcher. Among these 21 patients contacted, three spouses refused to participate due to the nature of the study, and one spouse refused to consent to the Veterans Administration form. As nine patients refused to participate, the sample of bipolar patients consisted of six subjects. The researcher first contacted The Ohio State University Hospital and Outpatient Psychiatric Clinic in order to obtain subjects. One subject was referred to the researcher from this resource. Thus, due to the small sample size and the opportunity for comparison, two groups of subjects were utilized (see page 20-21 - The Family Environment Scale).
Instruments

Two standardized paper and pencil tests and one data form devised by the researcher were utilized. (See Appendix D), Environment Scale (FES) (Moos & Moos, 1981) was administered to each patient, a spouse, and at least one child 12 years of age or older to include the family of procreation. This instrument has been standardized and measures ten dimensions of the family environment and has a scale for congruence to measure the amount of agreement among family members.

The relationship dimensions are measured by the cohesion, expressiveness, and conflict subscales. These subscales assess the degree of commitment, help, and support family members provide for one another (cohesion); the extent to which family members are encouraged to act openly and directly express feelings (expressiveness); and the degree to which feelings of anger, aggression, and conflict are openly expressed among family members (conflict) (Moos & Moos, 1981). The personal growth dimensions are measured by the independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis subscales. These subscales measure the extent to which family members are self-sufficient and assertive (independence); the extent to which activities are emphasized within a competitive framework (achievement orientation); the extent of participation in social and recreational activities (active-recreational orientation); the degree of emphasis on
political, social, intellectual, and cultural activities
(intellectual-cultural orientation); and the degree of emphasis on
ethical and religious issues and values (moral-religious emphasis)
(Moos & Moos, 1981).

The system maintenance dimensions are measured by the
organization and control subscales. These subscales assess the
emphasis of clear organization and structure in planning family
activities (organization) and responsibilities and the extent to
which established rules are used in family life (control) (Moos &

The second instrument utilized in this research was the Social
Adjustment Scale (SAS) (Weissman, 1978). This was employed in order
to assess subjects' perceptions of current adjustment. Patients'
perceptions of interpersonal satisfaction were of interest; this
instrument was administered only to patients.

Additional data were collected from case records. Data were
gathered on the following characteristics: birth order; number of
siblings; number of hospital admissions for heart or affective
disorder condition; date of first hospitalization; amount of time on
prescribed medications; occupation and highest achieved level of
education for patient and family of origin; disability payments;
occupation; father absence; and losses in the family of origin. A
positive family history for affective disorder and, in the
comparison group, a heart condition, were also noted. A positive
family history for substance abuse was also recorded in both
groups. An instrument to review the case records was developed by the researcher. When case records did not contain all the information needed, subjects were interviewed and asked directly about the missing information.

Procedure

Potential subjects' names were obtained from both the Veterans Administration Outpatient Clinic (VAOPC) staff (both groups) and staff at The Ohio State University outpatient Psychiatry Clinic (bipolar group). Subjects were drawn from a population of 100 males participating in the VAOPC lithium clinic and 25 males receiving treatment for bipolar disorder at The Ohio State University Outpatient Clinic. The number of patients receiving treatment at the VAOPC for a heart condition is unknown.

Both groups of potential subjects were then approached either by phone or in person to obtain permission for themselves to participate. In addition, subjects were asked for consent for the researcher to contact family members (See Appendix A). The study was described, and consent forms and procedures approved by the Human Subjects Committee, involving the completion of the FES (Moos & Moos, 1981) and the SAS (Weissman, 1978) were employed (see Appendices A and B).

Family members were then contacted by both phone and mail (See Appendix C) to obtain their consent for participation. The FES (Moos & Moos, 1981) and consent forms were then sent to family members. The spouse and adult children completed their own consent
forms, whereas children younger than 18 years of age co-signed with a parent. Patients and family members were given the option of either filling out the tests in person or having materials mailed to their homes. Depending upon preference for the above options, either oral or mailed instructions were given to participants on completing the FES (Moos & Moos, 1981). Family members were told to apply the FES (Moos & Moos, 1981) to the family while the children were growing up in the home. Patients were given instructions for completing the SAS (Weissman, 1978).

Method of Analysis

Data on the family of origin, information on characteristics of the illness, and demographic information on the patient were examined. Observations were made on the presence or absence of bipolar-related characteristics that were reported in the literature.

Descriptive statistics on the FES (Moos & Moos, 1981) included the mean of the means for both groups of families for each subscale. For both groups, means were calculated for the identified patient, spouse, and children in the family. For each family, standardized scores for the relationship dimensions (an average for scores on the cohesion, expressiveness, and conflict subscales); the personal growth dimensions (an average for scores on the independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis subscales); and system maintenance dimensions (an average
for scores on the organization and control subscales) (Moos & Moos, 1981) were computed for each member. An average score for these sets of dimensions was also obtained for each family. In addition, data describing characteristics of the illness and those characteristics associated with bipolar disorder in the literature were used to analyze differences within the groups on subscales in which scores differed between groups.

Descriptive statistics for the SAS (Weissman, 1978) included an overall adjustment score for each patient. Although role area means could be computed for different areas of social adjustment (i.e. work, parental, marital), some patients failed to complete certain role areas, mainly because these areas were not applicable to them. Thus, the overall adjustment score, which is the mean of applicable role areas, was computed for each patient. This score was then compared with those found by Weissman et al. (1978) for males in four populations—a community sample, acute depressives, alcoholics, and schizophrenics.
CHAPTER V

RESULTS

The following chapter will be organized in three sections. In the first section, results describing the sample will be reported. In the second section, results of Family Environment Scale (FES) (Moos & Moos, 1981) will be presented. Differences between groups will be reported across subscales by mean of the family means; patient, spouse, and child means; and relationship, personal growth, and system maintenance dimensions. Differences within the groups will also be reported with relation to family history of condition, father absence in the family of origin, losses in the family of origin, and age of onset. Group scores on the Social Adjustment Scale (SAS) (Weissman, 1978) are in the last section.

Description of Sample

Both groups represent men in their middle adult and older adult years, with the bipolar group somewhat younger (see Table 1). The range in age was 44 to 69 for the bipolar group and 53 to 72 for the comparison group. The mean age for the group of bipolar patients was 58, whereas that of the heart patient group was 63.

In both the bipolar and the comparison group, four of the seven patients were retired (see Table 1). In the bipolar group,
patients' occupations included a retired air force officer, a semi-retired electrical contractor, a retired farmer, a part-time post worker, a printer, a retired factory worker, and a retired optician. The heart patients' occupations included a security guard, a maintenance supervisor, a retired army officer, a retired construction company owner, a retired truck driver, a supply clerk, and a retired sales manager. Both groups had occupations that are considered middle or lower middle class.

The mean was calculated for both groups for the percent of time patients were unemployed in the past ten years. For the bipolar patient group, a mean of 29.5 percent was ascertained, whereas for the heart patient group, a mean of 14.9 percent was obtained (see Table 1). Clearly, the bipolar patients had more pervasive unemployment. Disability payments were received by 7, or 100 percent, of the heart patients and 4, or 57 percent, of the patients with bipolar disorder.

For both groups, the highest educational level achieved by most patients was some college or vocational training beyond high school (see Table 1).
Table 1

Demographic Information in Frequencies

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bipolar Patients (N=7)</td>
<td>Heart Patients (N=7)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-49</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>50-59</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>60-69</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>70+</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>High school graduate</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Some college*</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>College graduate</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Receives disability payments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

*Vocational training beyond high school is also included in this category.
The characteristics of the illness are presented in Table 2. Bipolar patients have had more hospital admissions for their condition (\(\bar{x}=8.0\)) than the heart patients for their illness (\(\bar{x}=1.4\)). A mean obtained for total months hospitalized included 16.0 months for the group of patients with bipolar disorder and 2.7 months for the group of patients with a heart condition.

The mean duration of illness and age of onset were also obtained. In the bipolar patient group, 30.0 years was the mean duration of illness, whereas the mean age of onset was 30.3 years. In the heart patient group, the mean duration of illness was 5.6 years, and 57.3 years was found to be the mean age of onset. For the bipolar patient group, the mean obtained for the number of years on lithium was 5.0, while for the heart patient group, a mean of 5.6 years (the same mean as that found for the duration of illness) was observed for the amount of time on medications for that condition.

On the basis of this information, it appears that bipolar patients have had more extensive involvement with treatment for their disease than the heart patients. Bipolar patients have had multiple, more lengthy hospitalizations, and have had the illness for a longer time than the other group.
Table 2

**Characteristics of Illness**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Bipolar Patients</th>
<th>Heart Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of hospital admissions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>1-5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>6-10</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>11+</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Number of months hospitalized*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>less than 6 mos.</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>6 mos.-11 mos.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12 mos.-23 mos.</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24 mos.-47 mos.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>48 mos.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Age of onset**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Late</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>

*Total amount of time hospitalized as estimated by patient and rounded off to nearest month. **Early onset is before 30 years of age, while late onset is after 30 years of age.
A positive family history for mental illness was found in three patients in the group of patients with bipolar disorder, and it was not present in the comparison group (see Table 3). In the group of heart patients, however, 5 of the 7 patients were found to have a positive family history for a heart condition. It appears that there may be a genetic factor operating in both groups, but not to the same extent and not in all cases. A positive family history for substance abuse was prevalent in 3 of the 7 patients with bipolar disorder (see Table 3). As one of these patients did not have a positive family history for mental illness, substance abuse and/or mental illness are prevalent in the family histories of 57 percent of the patients. None of the patients with a heart condition had a family history of substance abuse or mental illness.

Father absence for at least six months before the age of 16 was prevalent in four of the patients with bipolar disorder and was not found in patients with a heart condition (see Table 3). Losses in the family of origin were found for 3 of the 7 patients in the group with bipolar disorder, while 2 of the 7 patients with a heart condition experienced such losses (see Table 3). With respect to the first factor, then, the family histories of the two groups are different.
Table 3

Characteristics Hypothesized to be Associated with Bipolar Disorder

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Bipolar Patients</th>
<th>Heart Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N*</td>
<td>P**</td>
</tr>
<tr>
<td>Family history of mental illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Family history of substance abuse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>Father absence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>57</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>43</td>
</tr>
<tr>
<td>Losses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>57</td>
</tr>
</tbody>
</table>

Note: These characteristics, as mentioned earlier in this research, have been hypothesized in the literature to be associated with bipolar disorder.

*N is equal to the frequency. **P is equal to the percentage.
The Family Environment Scale

A mean of family means on the FES (Moos & Moos, 1981) was computed for both groups (see Table 4). The scores were within the normal range for standardized scores of 30-70 (Moos & Moos, 1981). The mean family average for the bipolar patients was lower than that of the heart patients on all subscales except the moral-religious emphasis and control subscales. Greatest differences between groups were found on the cohesion, expressiveness, intellectual-cultural, and active-recreational subscales (see Table 4).

Mean scores on the FES (Moos & Moos, 1981) were also computed for the patient, spouse, and children roles in the family for each group (see Table 5). Various patterns were found. It appears that, for the comparison group, spouses scored similarly. The patient and spouse differed from the children on the subscales of cohesion, conflict, independence, achievement orientation, intellectual-cultural orientation, and control. In the experimental group, however, diverse patterns were found. Three items of spousal difference emerged, as the conflict, independence, and control subscales reflect a large difference between patient and spouse roles. Where differences between groups were noted earlier, they appeared greatest between the patients in each group, as scores on the cohesion, expressiveness, intellectual-cultural, and active-recreational orientation subscales were different (see Table 5).
Table 4

Mean of Family Means on FES by Subscales

<table>
<thead>
<tr>
<th>Group</th>
<th>Bipolar Patients</th>
<th>Heart Patients</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesion</td>
<td>49.1</td>
<td>54.3</td>
<td>-5.2</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>37.7</td>
<td>47.0</td>
<td>-9.3</td>
</tr>
<tr>
<td>Conflict</td>
<td>45.1</td>
<td>46.4</td>
<td>-1.3</td>
</tr>
<tr>
<td>Independence</td>
<td>46.1</td>
<td>49.3</td>
<td>-3.2</td>
</tr>
<tr>
<td>Achievement Orientation</td>
<td>52.3</td>
<td>57.4</td>
<td>-5.1</td>
</tr>
<tr>
<td>Intellectual-Cultural Orientation</td>
<td>43.6</td>
<td>49.3</td>
<td>-5.7</td>
</tr>
<tr>
<td>Active-Recreational Orientation</td>
<td>42.0</td>
<td>48.4</td>
<td>-6.4</td>
</tr>
<tr>
<td>Moral-Religious Emphasis Organization</td>
<td>58.1</td>
<td>56.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Organization</td>
<td>54.1</td>
<td>55.0</td>
<td>-0.9</td>
</tr>
<tr>
<td>Control</td>
<td>53.3</td>
<td>53.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Family Incongruence Score</td>
<td>56.1</td>
<td>60.7</td>
<td>-4.6</td>
</tr>
</tbody>
</table>

Note: All scores are standardized.
Table 5

Mean Scores on FES by Role in Family

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Bipolar Group</th>
<th>Heart Patient Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesion</td>
<td>46.6</td>
<td>57.3</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>37.9</td>
<td>46.4</td>
</tr>
<tr>
<td>Conflict</td>
<td>50.6</td>
<td>41.3</td>
</tr>
<tr>
<td>Independence</td>
<td>37.4</td>
<td>53.3</td>
</tr>
<tr>
<td>Achievement</td>
<td>50.7</td>
<td>57.9</td>
</tr>
<tr>
<td>Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual-Cultural Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active-Recreational Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moral-Religious Emphasis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>57.6</td>
<td>45.7</td>
</tr>
</tbody>
</table>

Note: All scores are standardized.
A trend on the relationship dimensions (see Table 6) was for the group of heart patients to score higher. Nevertheless, there seems to be a great deal of consensus within each group. This trend was repeated on the personal growth dimensions (see Table 7), although the wives of bipolar patients had higher scores than the rest of the family. On the system maintenance dimensions (see Table 8) both groups scored 54 for the mean of the family mean, revealing a similar pattern for system maintenance within the normal range.
Table 6

Relationship Dimensions

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Patient</th>
<th>Spouse</th>
<th>Child</th>
<th>Family Mean (X)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bipolar Patient Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>43</td>
<td>44</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>48</td>
<td>46</td>
<td>43</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>35</td>
<td>43</td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>38</td>
<td>40</td>
<td>*</td>
<td>39</td>
</tr>
<tr>
<td>5</td>
<td>47</td>
<td>48</td>
<td>39</td>
<td>45</td>
</tr>
<tr>
<td>6</td>
<td>53</td>
<td>42</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>48</td>
<td>48</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>X</td>
<td>45</td>
<td>45</td>
<td>42</td>
<td>44</td>
</tr>
</tbody>
</table>

| Heart Patient Group |         |        |       |                 |
| 1                   | 54      | 5r     | 63    | 54              |
| 2                   | 51      | 44     | 47**  | 48              |
| 3                   | 44      | 51     | 45    | 47              |
| 4                   | 42      | 50     | 50**  | 47              |
| 5                   | 48      | 43     | 48    | 46              |
| 6                   | 46      | 47     | *     | 46              |
| 7                   | 53      | 61     | 54    | 56              |
| X                   | 48      | 50     | 52    | 49              |

Note 1: Dimensions are composed of the mean for cohesion, expressiveness, and conflict subscale scores. Note 2: Family mean and group mean scores are rounded off to the nearest whole number.

*No child was available in this family. **More than one child was available in this family, so an average score for children was computed.
Table 7

Personal Growth Dimensions

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Patient</th>
<th>Spouse</th>
<th>Child</th>
<th>Family Mean (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>38</td>
<td>45</td>
<td>44</td>
<td>42</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
<td>54</td>
<td>50</td>
<td>49</td>
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<tr>
<td>3</td>
<td>43</td>
<td>49</td>
<td>36</td>
<td>45</td>
</tr>
<tr>
<td>4</td>
<td>36</td>
<td>43</td>
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<tr>
<td>5</td>
<td>55</td>
<td>56</td>
<td>48</td>
<td>53</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>60</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td>7</td>
<td>50</td>
<td>63</td>
<td>52</td>
<td>55</td>
</tr>
<tr>
<td>X</td>
<td>45</td>
<td>53</td>
<td>46</td>
<td>48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Patient</th>
<th>Spouse</th>
<th>Child</th>
<th>Family Mean (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>51</td>
<td>54</td>
<td>61</td>
<td>56</td>
</tr>
<tr>
<td>9</td>
<td>58</td>
<td>53</td>
<td>44**</td>
<td>52</td>
</tr>
<tr>
<td>10</td>
<td>50</td>
<td>58</td>
<td>61</td>
<td>52</td>
</tr>
<tr>
<td>11</td>
<td>44</td>
<td>42</td>
<td>40**</td>
<td>42</td>
</tr>
<tr>
<td>12</td>
<td>58</td>
<td>59</td>
<td>40</td>
<td>52</td>
</tr>
<tr>
<td>13</td>
<td>54</td>
<td>62</td>
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<td>58</td>
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<tr>
<td>14</td>
<td>60</td>
<td>51</td>
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<td>53</td>
</tr>
<tr>
<td>X</td>
<td>54</td>
<td>54</td>
<td>50</td>
<td>52</td>
</tr>
</tbody>
</table>

Note 1: Dimensions are composed of the mean for independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis subscales.

Note 2: Family mean and group mean scores are rounded off to the nearest whole number.

*No child was available in this family. **More than one child was available in this family, so an average score for children was completed.
### Table 8

**System Maintenance Dimensions**

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Patient</th>
<th>Spouse</th>
<th>Child</th>
<th>Family Mean (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>59</td>
<td>62</td>
<td>56</td>
<td>59</td>
</tr>
<tr>
<td>2</td>
<td>56</td>
<td>46</td>
<td>65</td>
<td>55</td>
</tr>
<tr>
<td>3</td>
<td>43</td>
<td>40</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>54</td>
<td>*</td>
<td>47</td>
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<tr>
<td>5</td>
<td>62</td>
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<td>46</td>
<td>52</td>
</tr>
<tr>
<td>6</td>
<td>62</td>
<td>45</td>
<td>45</td>
<td>51</td>
</tr>
<tr>
<td>7</td>
<td>68</td>
<td>65</td>
<td>73</td>
<td>69</td>
</tr>
<tr>
<td>\bar{x}</td>
<td>56</td>
<td>51</td>
<td>56</td>
<td>54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Patient</th>
<th>Spouse</th>
<th>Child</th>
<th>Family Mean (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>43</td>
<td>46</td>
<td>62</td>
<td>50</td>
</tr>
<tr>
<td>9</td>
<td>45</td>
<td>54</td>
<td>54**</td>
<td>52</td>
</tr>
<tr>
<td>10</td>
<td>34</td>
<td>51</td>
<td>59</td>
<td>48</td>
</tr>
<tr>
<td>11</td>
<td>48</td>
<td>54</td>
<td>62**</td>
<td>54</td>
</tr>
<tr>
<td>12</td>
<td>65</td>
<td>65</td>
<td>51</td>
<td>60</td>
</tr>
<tr>
<td>13</td>
<td>43</td>
<td>54</td>
<td>*</td>
<td>48</td>
</tr>
<tr>
<td>14</td>
<td>62</td>
<td>62</td>
<td>70</td>
<td>65</td>
</tr>
<tr>
<td>\bar{x}</td>
<td>49</td>
<td>55</td>
<td>60</td>
<td>54</td>
</tr>
</tbody>
</table>

**Note 1:** Dimensions are composed of the mean for organization and control subscale scores. **Note 2:** Family mean and group mean scores are rounded off to the nearest whole number.

* No child was available in this family. **More than one child was available in this family, so an average score for children was completed.
Those patients in the group with bipolar disorder having a positive family history for mental illness had the same mean of the family means score on the cohesion subscale as the patients in the group without such a history. For the comparison group, those having a positive family history for heart condition were found to be more cohesive than heart patients without such a history (see Table 9). On the expressiveness subscale, the mean of the family means was found to be one point lower than those patients without this family history for those in the group with bipolar disorder having a positive family history for mental illness. Those with a positive family history for heart condition in the comparison group scored three points higher than those without this family history on this subscale (see Table 9). On the active-recreational orientation subscale, patients with bipolar disorder scored the same, regardless of whether a family history for mental illness was present. In the heart patient group, those with a positive family history for this condition had a mean score of nine points higher than those without the condition (see Table 9). On the incongruence subscale, a similar pattern was found (see Table 9). Apparently having a positive family history for heart disease is a meaningful variable for heart patients in respect to three subscales of the FES, but no such pattern was found with the bipolar group.
### Table 9

**Relationship between Family History of Respective Condition and Subscale Mean of Family Means**

<table>
<thead>
<tr>
<th>Group</th>
<th>Bipolar Patients</th>
<th>Heart Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=7</td>
<td>N=7</td>
</tr>
<tr>
<td><strong>Cohesion Subscale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Family History</td>
<td>49</td>
<td>57</td>
</tr>
<tr>
<td>Negative Family History</td>
<td>49</td>
<td>48</td>
</tr>
<tr>
<td><strong>Expressiveness Subscale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Family History</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>Negative Family History</td>
<td>38</td>
<td>45</td>
</tr>
<tr>
<td><strong>Active-Recreational Orientation Subscale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Family History</td>
<td>49</td>
<td>57</td>
</tr>
<tr>
<td>Negative Family History</td>
<td>49</td>
<td>48</td>
</tr>
<tr>
<td><strong>Family Incongruence Subscale</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Family History</td>
<td>56</td>
<td>64</td>
</tr>
<tr>
<td>Negative Family History</td>
<td>57</td>
<td>53</td>
</tr>
</tbody>
</table>
Patients in the group with bipolar disorder with an early onset for the illness scored slightly higher than those with a late onset on the cohesion and active-recreational orientation subscales (see Table 10). They scored lower on the incongruence subscales (see Table 10). Those in the group with bipolar disorder who experienced father absence in the family of origin scored considerably lower on the cohesion subscale and slightly lower on the active-recreational orientation subscale than those who did not (see Table 11). They scored higher on the expressiveness and incongruence subscales (see Table 11).

Those patients in both groups who experienced losses in the family of origin scored lower than those without this experience on the cohesion subscale (see Table 12). For the bipolar patients there was a 28 point difference in cohesion between those who did and those who did not experience a loss. A lower score for both groups was also found on the active-recreational orientation subscale (see Table 12). For the expressiveness subscale, patients in the group with bipolar disorder who experienced losses scored higher than those without this experience. The opposite was found for the comparison group on this subscale (see Table 12). On the incongruence subscale, those who experienced losses in the bipolar patient group had a mean that was eight points higher than those without this experience. In the comparison group, those with losses scored one point lower on this subscale than those without losses in the family of origin (see Table 12).
Table 10

Age of Onset of Bipolar Disorder Illness in Relation to Subscale

Mean of Family Means

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Early</th>
<th>Late</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesion</td>
<td>51</td>
<td>48</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>37</td>
<td>48</td>
</tr>
<tr>
<td>Active-Recreational Orientation</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>Incongruence</td>
<td>51</td>
<td>60</td>
</tr>
</tbody>
</table>

Note: All patients in the comparison group had a late onset of illness, after age 30.
Table 11

Father Absence in Family of Origin in Relation to Subscale Mean of Family Means

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesion</td>
<td>41</td>
<td>61</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>41</td>
<td>33</td>
</tr>
<tr>
<td>Active-Recreational Orientation</td>
<td>41</td>
<td>43</td>
</tr>
<tr>
<td>Incongruence</td>
<td>58</td>
<td>53</td>
</tr>
</tbody>
</table>

Note: There were no patients in the comparison group who experienced father absence in the family of origin.
Table 12

Relation of Losses in the Family of Origin to Subscale Mean of Family Means

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Group</th>
<th>Bipolar Patients (N=7)</th>
<th>Heart Patients (N=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohesion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>61</td>
<td>56</td>
</tr>
<tr>
<td>Expressiveness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>42</td>
<td>46</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>35</td>
<td>48</td>
</tr>
<tr>
<td>Active-Recreational Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>Family Incongruence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
<td>61</td>
<td>60</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td>53</td>
<td>61</td>
</tr>
</tbody>
</table>
The Social Adjustment Scale

The mean score for the SAS (Weissman, 1978) in the group of patients with bipolar disorder was 2.09. The heart patient group's mean score was lower, 1.64 (the higher the score, the lower the level of adjustment). This can be compared with data on groups of employed males presented by Weissman et al. (1978) (see Table 13). The scores for both groups were above the community means and approached scores of adult men with emotional problems.

Two of the three patients in the group with bipolar disorder whose scores indicated that they were the least socially adjusted obtained a family average score for the cohesion subscale on the FES (Moos & Moos, 1981) below the normal range. Moreover, active-recreational orientation subscale family mean scores were in the low area of the normal range (31, 34, and 35) for all three of the subjects (see Table 14). One patient in the comparison group obtained an SAS (Weissman, 1978) score below the mean for the group of patients with bipolar disorder. This subject's family mean for the cohesion subscale of the FES (Moos & Moos, 1981) was 32, in the low area of the normal range. On the active-recreational orientation subscale, the family mean score was below the normal range (see Table 14).
### Table 13

**The Social Adjustment Scale**

<table>
<thead>
<tr>
<th>Groups</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenics (Employed Males)</td>
<td>1.25</td>
</tr>
<tr>
<td>Community Sample (Employed Males)</td>
<td>1.27</td>
</tr>
<tr>
<td><strong>Heart Patients</strong></td>
<td>1.64</td>
</tr>
<tr>
<td>Alcoholic (Employed Males)</td>
<td>1.67</td>
</tr>
<tr>
<td><strong>Bipolar Disorder Patients</strong></td>
<td>2.09</td>
</tr>
<tr>
<td>Acute Depressives (Employed Males)</td>
<td>2.61</td>
</tr>
</tbody>
</table>

Note: The data for items other than the two study groups are from "Social adjustment by self-report in a community sample and in psychiatric outpatients" by M. M. Weissman, B. A. Prusoff, W. D. Thompson, P. S. Harding, and J. K. Myers, 1978, *Journal of Nervous and Mental Disease, 166*, p. 32.
Table 14

Relation of the SAS Scores to Cohesion and Active-Recreational Orientation Subscales on the FES

<table>
<thead>
<tr>
<th>Case No.</th>
<th>Patient</th>
<th>SAS</th>
<th>Cohesion</th>
<th>Active-Recreational Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bipolar</td>
<td>2.65</td>
<td>60.5</td>
<td>30.5</td>
</tr>
<tr>
<td>2</td>
<td>Patient</td>
<td>1.91</td>
<td>62.5</td>
<td>46.0</td>
</tr>
<tr>
<td>3</td>
<td>Patient</td>
<td>2.48</td>
<td>25.5</td>
<td>33.5</td>
</tr>
<tr>
<td>4</td>
<td>Patient</td>
<td>2.35</td>
<td>20.0</td>
<td>35.0</td>
</tr>
<tr>
<td>5</td>
<td>Bipolar</td>
<td>1.47</td>
<td>57.5</td>
<td>42.5</td>
</tr>
<tr>
<td>6</td>
<td>Bipolar</td>
<td>2.87</td>
<td>53.0</td>
<td>50.0</td>
</tr>
<tr>
<td>7</td>
<td>Bipolar</td>
<td>1.93</td>
<td>63.0</td>
<td>55.0</td>
</tr>
<tr>
<td>8</td>
<td>Bipolar</td>
<td>2.03</td>
<td>60.5</td>
<td>57.0</td>
</tr>
<tr>
<td>9</td>
<td>Bipolar</td>
<td>1.11</td>
<td>49.5</td>
<td>44.0</td>
</tr>
<tr>
<td>10</td>
<td>Bipolar</td>
<td>1.53</td>
<td>62.5</td>
<td>51.5</td>
</tr>
<tr>
<td>11</td>
<td>Bipolar</td>
<td>2.21</td>
<td>32.0</td>
<td>29.0</td>
</tr>
<tr>
<td>12</td>
<td>Bipolar</td>
<td>1.64</td>
<td>58.0</td>
<td>62.0</td>
</tr>
<tr>
<td>13</td>
<td>Bipolar</td>
<td>1.87</td>
<td>49.5</td>
<td>45.5</td>
</tr>
<tr>
<td>14</td>
<td>Bipolar</td>
<td>1.10</td>
<td>65.5</td>
<td>48.5</td>
</tr>
</tbody>
</table>

Note: The family mean scores are reported on the cohesion and active-recreational orientation subscales for each case.
CHAPTER VI

DISCUSSION

Two groups of men with chronic illness were studied to compare their family patterns and social adjustment. Demographic data on the two groups (see Table 1) reveal that, on the surface, they are similar. Although the heart patients tended to be somewhat older, the age group for both groups with the highest frequency was 60-69. Educational levels and employment status were also comparable, as the majority of patients in each group have had some college or vocational training beyond high school and are retired.

Data on the characteristics of the illness (see Table 2) indicate differences between groups. The patients with bipolar disorder had an earlier age of onset for the illness, had been hospitalized more often, and for a greater length of time. Apparently, there was more disruption in the families of patients with bipolar disorder than the other group. A family history of mental illness and substance abuse, along with father absence in the family of origin are present in the patients with bipolar disorder, but are not present in the comparison group (see Table 3). Interestingly, this small sample of patients with bipolar disorder differs from the comparison group in characteristics hypothesized to be associated with bipolar disorder in the literature. Losses in the family of origin exist for patients in both groups.
Data on the FES (Moos & Moos, 1981) fail to support findings by Cohen et al. (1954) on the bipolar patient's family of origin. Further, the results do not support multi-generational patterns as suggested by Davenport et al. (1979). The above-mentioned studies concluded that families of patients with bipolar disorder are cohesive, controlling, and achievement oriented. The data give more support to results acquired by Moos and Moos (1981) who found distressed families to be less cohesive and less expressive (see Table 4). Their findings of greater conflict in distressed families is not prevalent in this research. Families of patients with bipolar disorder were also found to have lower scores on the intellectual-cultural orientation and the active-recreational orientation subscale in comparison with families of heart patients, despite the fact that patients with a heart condition may have physical limitations in activities. (Although the group of patients with bipolar disorder had lower scores than the heart patients on the above-mentioned subscales, both groups scored within the normal range (Moos & Moos, 1981) on all subscales.)

Exploration of the patient, spouse, and children roles for both groups reveals that the comparison group had parent-child differences similar to that described by Moos and Moos (1981) (see Table 5). The authors reported children as perceiving less emphasis on cohesion, expressiveness, independence, and intellectual and religious orientation, while perceiving more emphasis on conflict and achievement than their parents. For the group of patients with
a heart condition, this pattern, with the exceptions of expressiveness and achievement, exists. Spouses scored similarly, and the children differed from them in the comparison group. Moos and Moos (1981) speculate (on the basis of findings in different settings) that people (such as parents) who have more authority and responsibility in an environment may view that environment more positively than people (such as children) who have less authority and responsibility. The fact that this pattern is not present in the group of patients with bipolar disorder suggests that the parents in families in which the father has bipolar disorder may not have more authority and responsibility than those in other types of families. Moreover, in the experimental group, responses by spouses are dissimilar, suggesting that a spouse subsystem (Minuchin, 1980) may not be clearly formed with its boundaries. Although the sample used is small, findings suggest that in families of bipolar patients the parent-child subsystem boundaries are unclear and that the hierarchical structure deviates from the norm.

The group of patients with bipolar disorder tends to score lower on the relationship and personal growth dimensions (see Tables 6 and 7). Perhaps this group's extensive involvement with their illness interfered with these areas. Both groups have the same score for the mean of family means on system maintenance dimensions (see Table 8) which is within the normal range, suggesting a tendency to maintain homeostasis in the system.
Having a positive family history for mental illness does not differentiate the group of patients with bipolar disorder in terms of family environment (see Table 9). Nevertheless, those patients having an early onset for bipolar disorder tend to have family environments that are less cohesive and active, but more expressive than those with a late age of onset. Family incongruence is also higher for those in this group who had an early onset for the disorder (see Table 10).

Father absence, which is only present in the group of patients with bipolar disorder, is associated with lower scores on the cohesion subscale by 20 points (see Table 11). A smaller difference in the same direction is noted on the active-recreational orientation subscale. This factor is associated with higher scores on the expressiveness and family incongruence subscales. Losses in the family of origin are associated with a lower score on the cohesion subscale in both groups, with a larger discrepancy of 28 points in the group of patients with bipolar disorder (see Table 12). Differences are noted on the expressiveness, active-recreational orientation, and family incongruence subscales within both groups. On the expressiveness and family incongruence subscales, for the experimental group, differences with those experiencing losses scoring higher are present; the comparison group has a smaller discrepancy in the opposite direction on these subscales. So, the presence of the characteristics of early age of onset, father absence, and losses are associated with the previously
identified pattern of lower cohesion and active-recreational orientation in the families of procreation for the patients with bipolar disorder.

On the SAS (Weissman, 1978) both groups differ from the community sample (see Table 13). The group of patients with bipolar disorder obtained an average score closer to that of the acute depressives. In both groups, scores indicating more social maladjustment are associated with lower family mean scores for the FES (Moos & Moos, 1981) on the cohesion and active-recreational orientation subscales (see Table 14).

In summary, the findings suggest differences in the characteristics of the illness between groups. Furthermore, factors such as a family history of mental illness and father absence that have been associated with bipolar disorder in the literature are present.

On the surface, findings on the FES (Moos & Moos, 1981) do not suggest a pattern such as that found by Cohen et al. (1954) and Davenport et al. (1975). Instead, a pattern similar to that found by Moos and Moos (1981) in distressed families is evident. When scores for the patient, spouse, and children roles are explored, differences between groups suggest that the spouse subsystem in the group of patients with bipolar disorder lacks authority, responsibility, and differentiation as a subsystem.

The presence of an early age of onset, father absence, and losses affects the family environment in the group of patients with
bipolar disorder. One consistent finding with patients presenting these factors was a tendency for the family to be less cohesive. Scores on the SAS (Weissman, 1978) describe both groups as being less adjusted than a community sample, but the group of patients with bipolar disorder show more maladjustment. Low scores on the SAS (Weissman, 1978) are associated with lower scores on the cohesion and active-recreational orientation subscales of the FES (Moos & Moos, 1981). This suggests that bipolar patients have family patterns in which members do not do things together or have a study sense of cohesion.

This research is a pilot study with a very small sample; thus, parametric statistics could not be utilized. This study does suggest directions for further research. It would be interesting to determine whether variables such as losses or father absence in the family of origin are related to a distinct family pattern in patients with bipolar disorder. Further exploration of subsystem differentiation may also be worthwhile. If a larger sample size could have been used, a more distinct pattern might have emerged. Moreover, the inclusion of a sample from another psychiatric population would have been beneficial in determining whether any specific pattern exists in families of patients with bipolar disorder.

The restrictive criteria for participation in this study, limiting subjects to those being married with children, eliminated many patients for consideration. So, younger patients, divorced
patients, single patients, and those without children were ineligible for participation. Another obstacle was the fact that families were experiencing tension in the environment. In at least three cases known by the author, spouses of patients with bipolar disorder refused to participate for this reason. Although many patients with bipolar disorder live in turmoil or divorce (Albon et al., 1975; Merikangas, 1984), the nature of the study excluded a large percentage of families who may have demonstrated a specific pattern in the family environment.

If this study were replicated, one way in which the effects of bipolar disorder on the family environment could be measured more accurately would be to begin with the family at the onset of the illness and follow up with them for at least five years, or as long as children are in the home. This method would reduce the problems mentioned and would also study the families while the children were in the home. With such a strategy, the problem of recalling the family of origin would not exist as it did with adult children in this study. Another method in which a more accurate description of the family environment may be found would be to employ a qualitative, rather than a quantitative approach, in which the patient and family members would be encouraged to discuss the impact of bipolar disorder on their lives.

Implications For Social Work

Social workers, who view persons as members of family systems in transactions with their environments (Gitterman & Germain, 1976)
are in a position to consider family environmental aspects associated with bipolar disorder. According to Sands (1985), social workers are often employed in settings in which they play an important role in the assessment, treatment, and follow-up of patients. Furthermore, social workers also may provide information, support, and, when applicable, family therapy. Thus, the idea that attributes from the family may both arise from and influence the development of bipolar disorder has broad implications for social workers who work with this population. For example, the fact that certain characteristics may be present in the family histories points to the importance of thorough history-taking. Implications for treatment are also suggested. As the families in this sample seem to be dysfunctional in terms of subsystem differentiation and the distribution of authority and responsibility, structural family therapy may be appropriate for this population. The researcher’s observations of hidden family problems in dealing with refusals by the spouses also give support to the idea that the family should be a focus for treatment. An added benefit of working with the families of patients with bipolar disorder would be the possibility of mobilizing a potential source of support for the patient. In order to expand upon the knowledge base for practice, it would be appropriate for social workers to participate in research in this area.
LIST OF REFERENCES


APPENDIX A

CONSENT FORMS
CONSENT FOR FAMILY CONTACT FOR PARTICIPATION
IN SOCIAL AND BEHAVIORAL RESEARCH

I consent to your asking the following family members to participate in your study:

_________________________________________

_________________________________________

Dr. Roberta Sands ______ or his/her authorized representative has

(Principal Investigator)

explained the purpose of the study, the procedures to be followed and the expected duration of family contact and participation. I acknowledge that I have had the opportunity to obtain additional information about the study and that any questions I have raised have been answered to my full satisfaction. Furthermore, I understand that I am free to withdraw consent at any time and to discontinue allowing family contact/participation in the study without prejudice to me. I understand that information about me will not be shared with my family unless I specifically agree otherwise by placing my initials here.____. Finally, I acknowledge that I have read and fully understand the consent form.

I sign it freely and voluntarily. A copy has been given to me.

Date: _______________ Signed: __________________________

(Participant)

Signed: ___________________________ Signed: ___________________________

(Principal Investigator or his/her Authorized Representative) (Authorized Person to Consent for Participant - If required)

Witness: ___________________________
CONSENT FOR PARTICIPATION IN SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in research entitled: **Familial Factors in Bipolar Disorder**. Dr. Roberta Sands or his/her authorized representative has explained the purpose of the study, the procedures to be followed, and the expected duration of my participation. I have also been informed that my case records will be used in order to obtain information on myself and my family of origin. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available. I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to full satisfaction. Further, I understand that I am free to withdraw consent at any time and to discontinue participation in the study without prejudice to me. The information obtained from me will remain confidential unless I specifically agree otherwise by placing my initials here __________.

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date: ________________  Signed: X
(Participant)

Signed: ____________________  Signed: X
(Principal Investigator or his/her authorized representative) (Person Authorized to Consent for Participant - if required)

Witness: X ____________________
PART I - AGREEMENT TO PARTICIPATE IN RESEARCH
BY OR UNDER THE DIRECTION OF THE VETERANS ADMINISTRATION __________ Date

1. I, __________________________, voluntarily
   (Type or print subject's name)
   consent to participate as a subject in the investigation entitled
   __________________________
   (Title of Study)

2. I have signed one or more information sheets with this title to
   show that I have read the description including the purpose and
   nature of the investigation, the procedures to be used, the
   risks, inconveniences, side effects, and benefits to be
   expected, as well as other courses of action open to me and my
   right to withdraw the subject from the investigation at any
   time. Each of these items has a been explained to me by the
   investigator in the presence of a witness. The investigator
   has answered my questions concerning the investigation and I
   believe that I understand what is intended.

3. I understand that no guarantees or assurances have been given
   me since the results and risks of an investigation are not
   always known beforehand. I have been told this investigation
   has been carefully planned, that the plan has been reviewed by
   knowledgeable people, and that every reasonable precaution will
   be taken to protect the well-being of the subject.

4. In the event the subject sustains physical injury as a result
   of participation in this investigation, if the subject is
   eligible for medical care as a veteran, all necessary and
   appropriate care will be provided. If the subject is not
   eligible for medical care as a veteran, humanitarian emergency
   care will nevertheless be provided.

5. I realize I have not released this institution from liability
   for negligence. Compensation may or may not be payable, in the
   event of physical injury arising from such research, under
   applicable federal laws.

6. I understand that all information obtained about the subject
   during the course of this study will be made available only to
   doctors who are taking care of the subject and to qualified
   investigators and their assistants where their access to this
   information is appropriate and authorized. They will be bound
   by the same requirements to maintain the subject's privacy and
   anonymity as apply to all medical personnel within the Veterans
   Administration.
PART I AGREEMENT. . . VETERANS'S ADMINISTRATION

7. I further understand that, where required by law, the appropriate federal officer or agency will have free access to information obtained in this study should it become necessary. Generally, I may expect the same respect for the subject's privacy and anonymity from these agencies as is afforded by the Veterans Administration and its employees. The provisions of the Privacy Act apply to all agencies.

8. In the event that research in which the subject participates involves certain new drugs, information concerning the subject's response to the drug(s) will be supplied to the sponsoring pharmaceutical house(s) that made the drug(s) available. This information will be given to them in such a way that the subject cannot be identified.

I ___________________________________

HAVE READ THIS CONSENT FORM. ALL MY QUESTIONS HAVE BEEN ANSWERED, AND I FREELY AND VOLUNTARILY CHOOSE THAT THE SUBJECT'S RIGHTS AND PRIVACY WILL BE MAINTAINED. I AGREE TO THE SUBJECT'S PARTICIPATION AS A VOLUNTEER IN THIS PROGRAM.

9. Nevertheless, my consent for the subject's participation in the investigation is limited as follows:

Address of subject's representative (print or type)

Signature of subject's representative

Witness's name and address (Print or type)

Witness's signature

Subject's name (Print or type)

Subject is now a patient at (Name of VA Facility)

Investigator's name (Print or type)

Investigator's signature
PART I AGREEMENT... VETERAN'S ADMINISTRATION

Signed information sheets attached.
Signed information sheets available at:

Subject's identification (I.D. plate or print name - last, first, middle)

Subject's I.D. No. __________________ Age ________ Ward ______

AGREEMENT BY SUBJECT'S REPRESENTATIVE TO PARTICIPATE IN RESEARCH BY OR UNDER THE DIRECTION OF THE VETERANS ADMINISTRATION
PART II - AGREEMENT BY SUBJECT'S REPRESENTATIVE TO ALLOW
SUBJECT TO PARTICIPATE IN RESEARCH BY OR UNDER THE
DIRECTION OF VETERANS ADMINISTRATION

DATE

1. I, __________________________, am authorized
   (Type or print name of subject's representative)
to give consent for __________________________ by virtue of
   (Type or print subject's name)
   (Relationship, legal appointment, etc.)
   I voluntarily consent for this
   to participate as a subject in the investigation entitled Familial
Factors in Bipolar Disorder __________________________
   (Title of
   study)

2. I have signed one or more information sheets with this title to
   show that I have read the description including the purpose and
   nature of the investigation, the procedures to be used, the
   risks, inconveniences, side effects, and benefits to be
   expected, as well as other courses of action open me me and my
   right to withdraw the subject from the investigation at any
time. Each of these items has been explained to me by the
investigator in the presence of a witness. The investigator
has answered my questions concerning the investigation and I
believe that I understand what is intended.

3. I understand that no guarantees or assurances have been given
   me since the results and risks of an investigation are not
   always known before hand. I have been told this investigation
   has been carefully planned, that the plan has been reviewed by
knowledgeable people, and that every reasonable precaution will
be taken to protect the well-being of the subject.

4. In the event the subject sustains physical injury as a result
   of participation in this investigation, if the subject is
   eligible for medical care as a veteran, all necessary and
   appropriate care will be provided. If the subject is not
   eligible for medical care as a veteran, humanitarian emergency
care will nevertheless be provided.

5. I realize I have not released this institution from liability
   for negligence. Compensation may or may not be payable, in the
   event of physical injury arising from such research, under
applicable federal laws.

6. I understand that all information obtained about the subject
during the course of this study will be made available only to
PART II AGREEMENT. . . VETERANS ADMINISTRATION (Continued)

doctors who are taking care of the subject and to qualified investigators and their assistants where their access to this information is appropriate and authorized. They will be bound by the same requirements to maintain the subject's privacy and anonymity as apply to all medical personnel within the Veterans Administration.

7. I further understand that, where required by law, the appropriate federal officer or agency will have free access to information obtained in this study should it become necessary. Generally, I may expect the same respect for the subject's privacy and anonymity from these agencies as is afforded by the Veterans Administration and its employees. The provisions of the Privacy Act apply to all agencies.

8. In the event that research in which the subject participates involves certain new drugs, information concerning the subject's response to the drug(s) will be supplied to the sponsoring pharmaceutical house(s) that made the drug(s) available. This information will be given to them in such a way that the subject cannot be identified.

I

NAME OF SUBJECT'S REPRESENTATIVE

HAVE READ THIS CONSENT FORM. ALL MY QUESTIONS HAVE BEEN ANSWERED, AND I FREELY AND VOLUNTARILY CHOOSE THAT THE SUBJECT PARTICIPATE. I UNDERSTAND THAT THE SUBJECT'S RIGHTS AND PRIVACY WILL BE MAINTAINED. I AGREE TO THE SUBJECT'S PARTICIPATION AS A VOLUNTEER IN THIS PROGRAM.

9. Nevertheless, my consent for the subject's participation in the investigation is limited as follows:
PART II AGREEMENT. . .VETERANS ADMINISTRATION (Continued)

Address of subject's representative (print or type)

Signature of subject's representative

Witness's Name and Address (Print or type)

Witness's Signature

Subject's Name (Print or type)

Subject is now a patient at (Name of VA Facility)

Investigator's name (Print or type)

Investigator's Signature

Signed information sheets attached.

Signed information sheets available at:

Subject's Identification
(I.D. plate or print name - last, first, middle)

Subject's I.D. No. Age Ward

AGREEMENT BY SUBJECT'S REPRESENTATIVE TO PARTICIPATE IN RESEARCH BY OR UNDER THE DIRECTION OF THE VETERANS ADMINISTRATION.
APPENDIX B

INFORMATION PROVIDED TO SUBJECTS PRIOR TO PARTICIPATION
Information Provided to Patient Prior to His/Her Participation

My name is Leslie Chabler, and I am a graduate student at the Ohio State University College of Social Work. I am conducting a study on the life experiences and social adjustment of individuals being treated at the Columbus Veteran's Administration outpatient clinic for bipolar disorder. I am asking you to participate in this study by completing both a family environment and social adjustment inventory. I wish to find out more about these areas in order to promote better treatment for individuals with your disorder. In addition, I would like your permission to contact relatives by administering a family environment scale to your spouse or partner and any children 12 years of age or older. During the course of family contact, information about you will remain confidential. Because your participation is strictly voluntary, you are free to omit any items and to withdraw from this study at any time. Furthermore, your participation in this study will not in any way affect your treatment at the Veteran's Administration outpatient clinic. Your responses will not be shared with family members or anyone outside the research project. Results of this study will be reported in such a way that you will not be identifiable as an individual. Thank you for your anticipated participation and cooperation.
Information provided to Patient Prior to His Participation

My name is Leslie Chabler, and I am a graduate student at the Ohio State University College of Social Work. I am conducting a study on two groups of patients treated by the Columbus Veterans Administration Outpatient Clinic. One of these groups is patients with a heart condition. I am asking you to participate in this study by completing both a family environment and social adjustment inventory. I wish to find out more about these areas in order to promote better treatment. In addition, I would like your permission to contact relatives by administering a family environment scale to your spouse or partner and any children 12 years of age or older. During the course of the family contact, information about you will remain confidential. Because your participation is strictly voluntary, you are free to omit any items and to withdraw from this study at any time. Furthermore, your participation in this study will not in any way affect your treatment at the Veterans Administration outpatient clinic. Your responses will not be shared with family members or anyone outside the research project. Results of this study will be reported in such a way that you will not be identifiable as an individual. Thank you for your anticipated participation and cooperation.
Information provided to Patient Prior to His/Her Participation

My name is Leslie Chabler, and I am a graduate student at the Ohio State University College of Social Work. I am conducting a study on the life experiences and social adjustment of individuals being treated for bipolar disorder. I am asking you to participate in this study by completing both a family environment and social adjustment inventory. I wish to find out more about these areas in order to promote better treatment for individuals with your disorder. In addition, I would like your permission to contact relatives by administering a family environment scale to your spouse or partner and any children 12 years of age or older. During the course of the family contact, information about you will remain confidential. Because your participation is strictly voluntary, you are free to omit any items and to withdraw from this study at any time. Furthermore, your participation in this study will not in any way affect your treatment at The Ohio State University Hospital and/or Outpatient Clinic. Your responses will not be shared with family members or anyone outside the research project. Results of this study will be reported in such a way that you will not be identifiable as an individual. Thank you for your anticipated participation and cooperation.
Information Provided to Relative Prior to His/Her Participation

My name is Leslie Chabler, and I am a graduate student at the Ohio State University College of Social Work. I am conducting a study on individuals treated for the same disorder as your relative. I am interested in learning about the family environment of the patients, and I am asking your consent for completing a questionnaire on this topic. Your participation in this study is strictly voluntary; thus, you are free to omit any items and to withdraw from this study at anytime. Treatment of your relative by The Ohio State University Hospital and/or Outpatient Clinic will not in any way be affected by your participation in this study. Your responses will not be shared with family members or anyone outside the research project. Results will be reported in such a way that individual subjects will not be identifiable. Please either mail the completed questionnaire or hand it in to me at The Ohio State University Hospital or Outpatient Clinic, depending upon your preference. Thank you for your anticipated participation and cooperation.
Information Provided to Relative Prior to His/Her Participation

My name is Leslie Chabler, and I am a graduate student at the Ohio State University College of Social Work. I am conducting a study on individuals treated by the Columbus Veteran's Administration outpatient clinic for the same disorder as your relative. I am interested in learning about the family environment of the patients, and I am asking your consent for completing a questionnaire on this topic. Your participation in this study is strictly voluntary; thus, you are free to omit any items and to withdraw from this study at any time. Treatment of your relative by the Veteran's Administration outpatient clinic will not in any way be affected by your participation in this study. Your responses will not be shared with family members or anyone outside the research project. Results will be reported in such a way that individual subjects will not be identifiable. Please either mail the completed questionnaire or hand it in to me at the Veteran's Administration depending upon your preference. Thank you for your anticipated participation and cooperation.
APPENDIX C

LETTERS TO THE FAMILIES
My name is Leslie Chabler, and I am a graduate student at the Ohio State University College of Social Work. I am conducting a study on individuals treated by the Columbus Veteran's Administration outpatient clinic for the same disorder as your relative. I am interested in learning about the family environment of the patients, and I am asking for your participation by the completion of a questionnaire on this topic. Family participation would help me to learn about the environment of individuals with the same disorder as your relative in order to promote better treatment. However, your participation is strictly voluntary, and your decision on this matter will have no effect on the treatment of your relative at the Veteran's Administration outpatient clinic. I will be contacting you in the near future by telephone.

Sincerely,

Leslie A. Chabler
THE OHIO STATE UNIVERSITY SUBJECTS

My name is Leslie Chabler, and I am a graduate student at the Ohio State University College of Social Work. I am conducting a study on individuals being treated for the same disorder as your relative. I am interested in learning about the family environment of the patients, and I am asking for you participation by the completion of a questionnaire on this topic. Family participation would help me to learn about the environment of individuals with the same disorder as your relative in order to promote better treatment. However, your participation is strictly voluntary, and your decision on this matter will have no effect on the treatment of your relative at The Ohio State University Hospital and/or Outpatient Clinic. I will be contacting you in the near future by telephone.

Sincerely,

Leslie A. Chabler
APPENDIX D

INSTRUMENTS
A Social Climate Scale

FAMILY ENVIRONMENT SCALE

FORM R

Rudolf H. Moos

FES

Instructions

There are 90 statements in this booklet. They are statements about families. You are to decide which of these statements are true of your family and which are false. Make all your marks on the separate answer sheets. If you think the statement is True or mostly True of your family, make an X in the box labeled T (true). If you think the statement is False or mostly False of your family, make an X in the box labeled F (false).

You may feel that some of the statements are true for some family members and false for others. Mark T if the statement is true for most members. Mark F if the statement is false for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to you. So do not try to figure out how other members see your family, but do give us your general impression of your family for each statement.

CONSULTING PSYCHOLOGISTS PRESS, INC.
577 College Ave., Palo Alto, California 94306

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1. Family members really help and support one another.

2. Family members often keep their feelings to themselves.

3. We fight a lot in our family.

4. We don't do things on our own very often in our family.

5. We feel it is important to be the best at whatever you do.

6. We often talk about political and social problems.

7. We spend most weekends and evenings at home.

8. Family members attend church, synagogue, or Sunday School fairly often.

9. Activities in our family are pretty carefully planned.

10. Family members are rarely ordered around.

11. We often seem to be killing time at home.

12. We say anything we want to around home.

13. Family members rarely become openly angry.

14. In our family, we are strongly encouraged to be independent.

15. Getting ahead in life is very important in our family.

16. We rarely go to lectures, plays or concerts.

17. Friends often come over for dinner or to visit.

18. We don't say prayers in our family.

19. We are generally very neat and orderly.

20. There are very few rules to follow in our family.

21. We put a lot of energy into what we do at home.

22. It's hard to "blow off steam" at home without upsetting somebody.

23. Family members sometimes get so angry they throw things.

24. We think things out for ourselves in our family.

25. How much money a person makes is not very important to us.

26. Learning about new and different things is very important in our family.

27. Nobody in our family is active in sports, Little League, bowling, etc.
28. We often talk about the religious meaning of Christmas, Passover, or other holidays.

29. It's often hard to find things when you need them in our household.

30. There is one family member who makes most of the decisions.

31. There is a feeling of togetherness in our family.

32. We tell each other about our personal problems.

33. Family members hardly ever lose their tempers.

34. We come and go as we want to in our family.

35. We believe in competition and "may the best man win."

36. We are not that interested in cultural activities.

37. We often go to movies, sports events, camping, etc.

38. We don't believe in heaven or hell.

39. Being on time is very important in our family.

40. There are set ways of doing things at home.

41. We rarely volunteer when something has to be done at home.

42. If we feel like doing something on the spur of the moment we often just pick up and go.

43. Family members often criticize each other.

44. There is very little privacy in our family.

45. We always strive to do things just a little better the next time.

46. We rarely have intellectual discussions.

47. Everyone in our family has a hobby or two.

48. Family members have strict ideas about what is right and wrong.

49. People change their minds often in our family.

50. There is a strong emphasis on following rules in our family.

51. Family members really back each other up.

52. Someone usually gets upset if you complain in our family.

53. Family members sometimes hit each other.
54. Family members almost always rely on themselves when a problem comes up.

55. Family members rarely worry about job promotions, school grades, etc.

56. Someone in our family plays a musical instrument.

57. Family members are not very involved in recreational activities outside work or school.

58. We believe there are some things you just have to take on faith.

59. Family members make sure their rooms are neat.

60. Everyone has an equal say in family decisions.

61. There is very little group spirit in our family.

62. Money and paying bills is openly talked about in our family.

63. If there's a disagreement in our family, we try hard to smooth things over and keep the peace.

64. Family members strongly encourage each other to stand up for their rights.

65. In our family, we don't try that hard to succeed.

66. Family members often go to the library.

67. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).

68. In our family each person has different ideas about what is right and wrong.

69. Each person's duties are clearly defined in our family.

70. We can do whatever we want to in our family.

71. We really get along well with each other.

72. We are usually careful about what we say to each other.

73. Family members often try to one-up or out-do each other.

74. It's hard to be by yourself without hurting someone's feelings in our household.

75. "Work before play" is the rule in our family.

76. Watching T.V. is more important than reading in our family.

77. Family members go out a lot.

78. The Bible is a very important book in our home.
79. Money is not handled very carefully in our family.

80. Rules are pretty inflexible in our household.

81. There is plenty of time and attention for everyone in our family.

82. There are a lot of spontaneous discussions in our family.

83. In our family, we believe you don't ever get anywhere by raising your voice.

84. We are not really encouraged to speak up for ourselves in our family.

85. Family members are often compared with others as to how well they are doing at work or school.

86. Family members really like music, art and literature.

87. Our main form of entertainment is watching T.V. or listening to the radio.

88. Family members believe that if you sin you will be punished.

89. Dishes are usually done immediately after eating.

90. You can't get away with much in our family.
O.S.U. HOSPITALS
ADULT PSYCHIATRY CLINIC

NAME____________________________________

DATE____________________________________

________________________________________

SOCIAL ADJUSTMENT SELF REPORT QUESTIONNAIRE
We are interested in finding out how you have been doing in the last two weeks. We would like you to answer some questions about your work, spare time and your family life. There are no right or wrong answers to these questions. Check the answers that best describe how you have been in the last two weeks.

________________________________________

WORK OUTSIDE THE HOME
Please check the situation that best describes you.

I am
1. a worker for pay
2. a housewife
3. a student
4. retired
5. unemployed

(14)

Do you usually work for pay more than 15 hours per week?
1. YES
2. NO

(15)

Did you work any hours for pay in the last two weeks?
1. YES
2. NO

(16)

Check the answer that best describes how you have been in the last two weeks.

1. How many days did you miss from work in the last two weeks?
1. No days missed.
2. One day.
3. I missed about half the time.
4. Missed more than half the time but did make at least one day.
5. I did not work any days.
6. On vacation all of the last two weeks.

(17)

If you have not worked any days in the last two weeks, go on to Question 7.
2. Have you been able to do your work in the last 2 weeks?
   1. I did my work very well. (18)
   2. I did my work well but had some minor problems.
   3. I needed help with work and did not do well about half the time.
   4. I did my work poorly most of the time.
   5. I did my work poorly all the time.

3. Have you been ashamed of how you do your work in the last 2 weeks?
   1. I never felt ashamed. (19)
   2. Once or twice I felt a little ashamed.
   3. About half the time I felt ashamed.
   4. I felt ashamed most of the time.
   5. I felt ashamed all the time.

4. Have you had any arguments with people at work in the last 2 weeks?
   1. I had no arguments and got along very well. (20)
   2. I usually got along well but had minor arguments.
   3. I had more than one argument.
   4. I had many arguments.
   5. I was constantly in arguments.

5. Have you felt upset, worried or uncomfortable while doing your work during the last 2 weeks?
   1. I never felt upset. (21)
   2. Once or twice I felt upset.
   3. Half the time I felt upset.
   4. I felt upset most of the time.
   5. I felt upset all of the time.

6. Have you found your work interesting these last two weeks?
   1. My work was almost always interesting. (22)
   2. Once or twice my work was not interesting.
   3. Half the time my work was uninteresting.
   4. Most of the time my work was uninteresting.
   5. My work was always uninteresting.

---

WORK AT HOME - HOUSEWIVES ANSWER QUESTIONS 7-12. OTHERWISE, GO ON TO QUESTION 13.

7. How many days did you do some housework during the last 2 weeks?
   1. Every day. (23)
   2. I did the housework almost every day.
   3. I did the housework about half the time.
   4. I usually did not do the housework.
   5. I was completely unable to do housework.
   6. I was away from home all of the last two weeks.
8. During the last two weeks, have you kept up with your housework? This includes cooking, cleaning, laundry, grocery shopping, and errands.
   1. I did my work very well. (24)
   2. I did my work well but had some minor problems.
   3. I needed help with my work and did not do it well about half the time.
   4. I did my work poorly most of the time.
   5. I did my work poorly all of the time.

9. Have you been ashamed of how you did your housework during the last 2 weeks?
   1. I never felt ashamed. (25)
   2. Once or twice I felt a little ashamed.
   3. About half the time I felt ashamed.
   4. I felt ashamed most of the time.
   5. I felt ashamed all the time.

10. Have you had any arguments with sales people, tradesmen or neighbors in the last 2 weeks?
   1. I had no arguments and got along very well. (26)
   2. I usually got along well, but had minor arguments.
   3. I had more than one argument.
   4. I had many arguments.
   5. I was constantly in arguments.

11. Have you felt upset while doing your housework during the last 2 weeks?
   1. I never felt upset. (27)
   2. Once or twice I felt upset.
   3. Half the time I felt upset.
   4. I felt upset most of the time.
   5. I felt upset all of the time.

12. Have you found your housework interesting these last 2 weeks?
   1. My work was almost always interesting. (28)
   2. Once or twice my work was not interesting.
   3. Half the time my work was uninteresting.
   4. Most of the time my work was uninteresting.
   5. My work was always uninteresting.

FOR STUDENTS
Answer Questions 13-18 if you go to school half time or more.
Otherwise, go on to Question 19.
What best describes your school program? (Choose one)
   1. Full Time (29)
   2. 3/4 Time
   3. Half Time
Check the answer that best describes how you have been the last 2 weeks.

13. How many days of classes did you miss in the last 2 weeks?
   1. No days missed.  (30)
   2. A few days missed.
   3. I missed about half the time.
   4. Missed more than half time but I did make at least one day.
   5. I did not go to classes at all.
   6. I was on vacation all of the last two weeks.

14. Have you been able to keep up with your class work in the last 2 weeks?
   1. I did my work very well.  (31)
   2. I did my work well but had minor problems.
   3. I needed help with my work and did not do well about half the time.
   4. I did my work poorly most of the time.
   5. I did my work poorly all of the time.

15. During the last 2 weeks, have you been ashamed of how you do your school work?
   1. I never felt ashamed.  (32)
   2. Once or twice I felt ashamed.
   3. About half the time I felt ashamed.
   4. I felt ashamed most of the time.
   5. I felt ashamed all of the time.

16. Have you had any arguments with people at school in the last 2 weeks?
   1. I had no arguments and got along very well.  (33)
   2. I usually got along well but had minor arguments.
   3. I had more than one argument.
   4. I had many arguments.
   5. I was constantly in arguments.
   8. Not applicable; I did not attend school.

17. Have you felt upset at school during the last 2 weeks?
   1. I never felt upset.  (34)
   2. Once or twice I felt upset.
   3. Half the time I felt upset.
   4. I felt upset most of the time.
   5. I felt upset all of the time.
   8. Not applicable; I did not attend school.

18. Have you found your school work interesting these last 2 weeks?
   1. My work was almost always interesting.  (35)
   2. Once or twice my work was not interesting.
   3. Half the time my work was uninteresting.
   4. Most of the time my work was uninteresting.
   5. My work was always uninteresting.
SPARE TIME - EVERYONE ANSWER QUESTIONS 19-27.
Check the answer that best describes how you have been in the last 2 weeks.

19. How many friends have you seen or spoken to on the telephone in the last 2 weeks?
   1. Nine or more friends.       (36)
   2. Five to eight friends.
   3. Two to four friends.
   4. One friend.
   5. No friends.

20. Have you been able to talk about your feelings and problems with at least one friend during the last 2 weeks?
   1. I can always talk about my innermost feelings. (37)
   2. I usually can talk about my feelings.
   3. About half the time I felt able to talk about my feelings.
   4. I usually was not able to talk about my feelings.
   5. I was never able to talk about my feelings.
   8. Not applicable; I have no friends.

21. How many times in the last two weeks have you gone out socially with other people? For example, visited friends, gone to movies, bowling, church, restaurants, invited friends to your home?
   1. More than 3 times.       (38)
   2. Three times.
   3. Twice.
   4. Once.
   5. None.

22. How much time have you spent on hobbies or spare time interests during the last 2 weeks? For example, bowling, sewing, gardening, sports, reading?
   1. I spent most of my spare time on hobbies almost every day. (39)
   2. I spent some spare time on hobbies some of the days.
   3. I spent a little spare time on hobbies.
   4. I usually did not spend any time on hobbies but did watch TV.
   5. I did not spend any spare time on hobbies or watching TV.

23. Have you had open arguments with your friends in the last 2 weeks?
   1. I had no arguments and got along very well. (40)
   2. I usually got along well but had minor arguments.
   3. I had more than one argument.
   4. I had many arguments.
   5. I was constantly in arguments.
   8. Not applicable; I have no friends.
24. If your feelings were hurt or offended by a friend during the last two weeks, how badly did you take it?
   1. It did not affect me or it did not happen. (41)
   2. I got over it in a few hours.
   3. I got over it in a few days.
   4. I got over it in a week.
   5. It will take me months to recover.
   8. Not applicable; I have no friends.

25. Have you felt shy or uncomfortable with people in the last 2 weeks?
   1. I always felt comfortable. (42)
   2. Sometimes I felt uncomfortable but I could relax after a while.
   3. About half the time I felt uncomfortable.
   4. I usually felt uncomfortable.
   5. I always felt uncomfortable.
   8. Not applicable; I was never with people.

26. Have you felt lonely and wished for more friends during the last 2 weeks?
   1. I have not felt lonely. (43)
   2. I have felt lonely a few times.
   3. About half the time I felt lonely.
   4. I usually felt lonely.
   5. I always felt lonely and wished for more friends.

27. Have you felt bored in your spare time during the last 2 weeks?
   1. I never felt bored. (44)
   2. I usually did not feel bored.
   3. About half the time I felt bored.
   4. Most of the time I felt bored.
   5. I was constantly bored.

Are you a Single, Separated, or Divorced Person not living with a person of opposite sex; please answer below:
   1. YES, Answer questions 28 & 29. (45)
   2. NO, go to question 30.

28. How many times have you been with a date these last 2 weeks?
   1. More than 3 times. (46)
   2. Three times.
   3. Twice.
   4. Once.
   5. Never.

29. Have you been interested in dating during the last 2 weeks. If you have not dated, would you have liked to?
   1. I was always interested in dating. (47)
   2. Most of the time I was interested.
   3. About half of the time I was interested.
   4. Most of the time I was not interested.
   5. I was completely uninterested.
FAMILY

Answer Questions 30-37 about your parents, brothers, sisters, in laws, and children not living at home. Have you been in contact with any of them in the last two weeks?

1. YES, Answer questions 30-37.
2. NO, Go on to question 36.

30. Have you had open arguments with your relatives in the last 2 weeks?
1. We always got along very well. (48)
2. We usually got along very well but had some minor arguments.
3. I had more than one argument with at least one relative.
4. I usually was not able to talk about my feelings.
5. I was never able to talk about my feelings.

31. Have you been able to talk about your feelings and problems with at least one of your relatives in the last 2 weeks?
1. I can always talk about my feelings with at least one relative. (49)
2. I usually can talk about my feelings.
3. About half the time I felt able to talk about my feelings.
4. I usually was not able to talk about my feelings.
5. I was never able to talk about my feelings.

32. Have you avoided contacts with your relatives these last two weeks?
1. I have contacted relatives regularly. (50)
2. I have contacted a relative at least once.
3. I have waited for my relatives to contact me.
4. I avoided my relatives, but they contacted me.
5. I have no contacts with any relatives.

33. Did you depend on your relatives for help, advice, money, or friendship during the last 2 weeks?
1. I never need to depend on them. (51)
2. I usually did not need to depend on them.
3. About half the time I needed to depend on them.
4. Most of the time I depend on them.
5. I depend completely on them.

34. Have you wanted to do the opposite of what your relatives wanted in order to make them angry during the last 2 weeks?
1. I never wanted to oppose them. (52)
2. Once or twice I wanted to oppose them.
3. About half the time I wanted to oppose them.
4. Most of the time I wanted to oppose them.
5. I always opposed them.
35. Have you been worried about things happening to your relatives without good reason in the last 2 weeks?
   1. I have not worried without reason. (53)
   2. Once or twice I worried.
   3. About half the time I worried.
   4. Most of the time I worried.
   5. I have worried the entire time.
   8. Not applicable; my relatives are no longer living.

EVERYONE answer Questions 36 and 37, even if your relatives are not living.
36. During the last two weeks, have you been thinking that you have let any of your relatives down or have been unfair to them at any time?
   1. I did not feel that I let them down at all. (54)
   2. I usually did not feel that I let them down.
   3. About half the time I felt that I let them down.
   4. Most of the time I have felt that I let them down.
   5. I always felt that I let them down.

37. During the last two weeks, have you been thinking that any of your relatives have let you down or have been unfair to you at any time?
   1. I never felt that they let me down. (55)
   2. I felt that they usually did not let me down.
   3. About half the time I felt they let me down.
   4. I usually have felt that they let me down.
   5. I am very bitter that they let me down.

Are you living with your spouse or have been living with a person of the opposite sex in a permanent relationship?
   1. YES, Please answer questions 38-46. (56)
   2. NO, Go to question 47.

38. Have you had open arguments with your partner in the last 2 weeks?
   1. We had no arguments and we got along well. (57)
   2. We usually got along well but had minor arguments.
   3. We had more than one argument.
   4. We had many arguments.
   5. We were constantly in arguments.

39. Have you been able to talk about your feelings and problems with your partner during the last 2 weeks?
   1. I could always talk freely about my feelings. (58)
   2. I usually could talk about my feelings.
   3. About half the time I felt able to talk about my feelings.
   4. I usually was not able to talk about my feelings.
   5. I was never able to talk about my feelings.
40. Have you been demanding to have your own way at home during the last 2 weeks?
   1__I have not insisted on always having my own way. (59)
   2__I usually have not insisted on having my own way.
   3__About half the time I insisted on having my own way.
   4__I usually insisted on having my own way.
   5__I always insisted on having my own way.

41. Have you been bossed around by your partner these last 2 weeks?
   1__Almost never. (60)
   2__Once in a while.
   3__About half the time.
   4__Most of the time.
   5__Always.

42. How much have you felt dependent on your partner these last 2 weeks?
   1__I was independent. (61)
   2__I was usually independent.
   3__I was somewhat dependent.
   4__I was usually dependent.
   5__I depended on my partner for everything.

43. How have you felt about your partner during the last 2 weeks?
   1__I always felt affection. (62)
   2__I usually felt affection.
   3__About half the time I felt dislike and half the time affection.
   4__I usually felt dislike.
   5__I always felt dislike.

44. How many times have you and your partner had intercourse?
   1__More than twice a week. (63)
   2__Once or twice a week.
   3__Once every two weeks.
   4__Less than once every two weeks but at least once in the last month.
   5__Not at all in a month or longer.

45. Have you had any problems during intercourse, such as pain these last two weeks?
   1__None. (64)
   2__Once or twice.
   3__About half the time.
   4__Most of the time.
   5__Always.
   8__Not applicable; no intercourse in the last two weeks.
46. How have you felt about intercourse during the last 2 weeks?
   1. I always enjoyed it. (65)
   2. I usually enjoyed it.
   3. About half the time I did and half the time I did not enjoy it.
   4. I usually did not enjoy it.
   5. I never enjoyed it.

CHILDREN
Have you had unmarried children, stepchildren, or foster children living at home during the last two weeks?
   1. YES, Answer questions 47-50. (66)
   2. NO, Go to question 51.

47. Have you been interested in what your children are doing—school, play or hobbies during the last 2 weeks?
   1. I was always interested and actively involved. (67)
   2. I usually was interested and involved.
   3. About half the time interested and half the time not interested.
   4. I usually was disinterested.
   5. I was always disinterested.

48. Have you been able to talk and listen to your children during the last 2 weeks? Include only children over the age of 2.
   1. I always was able to communicate with them. (68)
   2. I usually was able to communicate with them.
   3. About half the time I could communicate.
   4. I usually was not able to communicate.
   5. I was completely unable to communicate.
   8. Not applicable; no children over the age of 2.

49. How have you been getting along with the children during the last 2 weeks?
   1. I had no arguments and got along very well. (69)
   2. I usually got along well but had minor arguments.
   3. I had more than one argument.
   4. I had many arguments.
   5. I was constantly in arguments.

50. How have you felt toward your children these last 2 weeks?
   1. I always felt affection. (70)
   2. I mostly felt affection.
   3. About half the time I felt affection.
   4. Most of the time I did not feel affection.
   5. I never felt affection toward them.
FAMILY UNIT
Have you ever been married, ever lived with a person of the opposite sex, or ever had children? Please check.
1__YES, Please answer questions 51-53.  (71)
2__NO, Go to question 54.
51. Have you worried about your partner or any of your children without any reason during the last 2 weeks, even if you are not living together now?
1__I never worried. (72)
2__Once or twice I worried.
3__About half the time I worried.
4__Most of the time I worried.
5__I always worried.
8__Not applicable; partner and children not living.
52. During the last 2 weeks have you been thinking that you have let down your partner or any of your children at any time?
1__I did not feel I let them down at all. (73)
2__I usually did not feel that I let them down.
3__About half the time I felt I let them down.
4__Most of the time I have felt that I let them down.
5__I let them down completely.
53. During the last 2 weeks, have you been thinking that your partner or any of your children have let you down at any time?
1__I never felt that they let me down. (74)
2__I felt they usually did not let me down.
3__About half the time I felt they let me down.
4__I usually felt they let me down.
5__I feel bitter that they have let me down.

FINANCIAL - EVERYONE PLEASE ANSWER QUESTION 54.
54. Have you had enough money to take care of your own and your family's financial needs during the last 2 weeks?
1__I had enough money for needs. (75)
2__I usually had enough money with minor problems.
3__About half the time I did not have enough money but did not have to borrow money.
4__I usually did not have enough money and had to borrow from others.
5__I had great financial difficulty.
(Heart Patients)
Instrument to Study Family of Origin and Additional Information on Patient

Subject Code Number____________________
Age ______________________
Number of Siblings _______Male _________Female
Birth Order _________________
No. of Admissions to Hospital for Heart Condition (Patient) ______
Total Number of Months Hospitalized for Heart Condition __________
Date of First Hospitalization for heart Condition _____________________
Date of Most Recent Hospitalization _________________________________
Amount of Time on Medications for Condition _________________________
Other Prescribed Medications _______________________________________

Occupation: Of Subject _______________ Of Siblings ______
_____________ Of Father _______________ Of Mother ________
Highest Education Level Achieved: By Subject ______ By Siblings ______
_____________ By Father _____________ By Mother _________
Estimated Percent of Time Patient Unemployed in Last 10 Years ______
Disability Payments ______________________________________
Age When Patient Born: Of Father ____________ Of Mother _________

The following information will be recorded by three categories:
1) Present; 2) Not Present; 3) Cannot be Determined

Reported Incidence of Mental Illness in Family _________________
Reported Incidence of Affective Disorder in Family ________________
Reported Incidence of Substance Abuse in Family _________________
Marginal Socio-economic Status in Family of Origin

Family Conflict

Father Absence During Patient's Critical Developmental Stages

High Achievement Expectations in Family

Losses

Additional Comments
Instrument to Study Family of Origin and Additional Information on Patient

Subject Code Number ______________________

VAOPC or OSU Patient ______________________

Age ______________________

Number of Siblings ____________ Male ____________ Female

Birth Order ______________________

No. of Admissions to Psychiatric Hospitals (Patient) ____________

Total Number of Months Hospitalized for Psychiatric Disorder ______

Date of First Psychiatric Hospitalization ______________________

Date of Most Recent Psychiatric Hospitalization __________________

Amount of Time on Lithium ______________________

Other Prescribed Medications ______________________

Other Psychiatric Diagnoses ______________________

Occupation: Of Subject ______________________ Of Siblings ______

Of Father ______________________ Of Mother ______

Highest Education Level Achieved: By Subject ____________ By Siblings ________ By Father ____________ By Mother ________

Estimated Percent of Time Patient Unemployed in Last 10 Years ______

Disability Payments ______________________

Age When Patient Born: Of Father ________ Of Mother ______

The following information will be recorded by three categories:

1) Present; 2) Not Present; 3) Cannot be Determined

Reported Incidence of Mental Illness in Family ______________________
Reported Incidence of Affective Disorder in Family

Family Incidence of Substance Abuse

Marginal Socio-economic Status

Family Conflict

Father Absence During Patient's Critical Developmental Stages

High Achievement Expectations in Family

Losses

Additional Comments: