

THE EFFECTS OF A PSYCHO-EDUCATIONAL GROUP ON
PARENTS OF THE CHRONICALLY MENTALLY ILL

by

Mark David Thompson

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF COUNSELING AND GUIDANCE
In Partial Fulfillment of the Requirements
For the Degree of
DOCTOR OF PHILOSOPHY
In the Graduate College
THE UNIVERSITY OF ARIZONA

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**The effects of a psycho-educational group on parents of the
chronically mentally ill**

Thompson, Mark David, Ph.D.

The University of Arizona, 1987

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As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Mark David Thompson entitled The Effects of a Psycho-Educational Group on Parents of the Chronically Mentally Ill

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ABSTRACT

The purpose of this study was to examine the effect of a psycho-educational group on parents of the chronically mentally ill. The perceived quality of the parent's marital relationships, family environment, reported psychological symptoms, and knowledge of the etiology, treatment, and phenomena regarding chronic mental illness were measured for members of the treatment and comparison groups.

A non-randomized comparison pretest-posttest design was employed to study the impact of participation in a psycho-educational group on the dependent variables. The treatment group (n = 18) and comparison group (n = 20) were matched on a number of demographic variables.

The Dyadic Adjustment Scale, comprised of four subscales, measured the perceived quality of the parents' marital relationship. Eight of the ten subscales of the Family Environmental Scale were used to assess the family atmosphere while selected subscales of the Symptom Checklist 90-Revised assessed the parents' reported psychological symptoms. The Mental Illness Questionnaire served as an indicator of parents' knowledge of various aspects of chronic mental illness. Data were analyzed using a two-factor repeated measures analysis of variance (ANOVA).

T tests were conducted at the pretest point to ensure the comparability of the groups. Interviews were conducted at the follow-up point to obtain subjective comments regarding the impact of chronic mental illness on the family as well as an evaluation of the psycho-educational group.

Findings indicated that families do increase and retain knowledge regarding chronic mental illness as a result of participating in a psycho-educational group. Some improvement was noted in the perceived quality of marital relationships for members of the treatment group. There were no identified changes in the family environment or reported psychological symptoms based solely on group participation. The individual interviews conducted at the four-week follow-up supported the belief that chronic mental illness typically has a detrimental effect on the variables studied, and that participation in a psycho-educational group serves as a valuable resource to address the family's concerns.

CHAPTER 1

INTRODUCTION

Families of the chronically mentally ill (CMI) endure significant hardships as a result of a deinstitutionalization process that fell short of its intended goal (Pepper & Ryglewicz, 1982). Each year an estimated 1,000,000 psychiatric patients return to their families following hospital discharge (Goldman, 1982). Families often tolerate the return of their chronically mentally ill member at a heavy emotional and social cost (Doll, 1976). The family environment, marital relationships, and individuals within the family often suffer because of an inadequate system of aftercare (Hatfield, 1983).

The deinstitutionalization movement of the early 1960's sprang from the civil rights protests in the post World War II era. The concurrent discovery of antipsychotic medications (which controlled acute symptoms of mental illness), economic concerns about the astronomical costs of maintaining individuals in institutions, and a developing mental health commitment to provide services in the least restrictive environment added to the zeitgeist that made deinstitutionalization a reality (Lamb, 1982). Society

emphasized a restoration of social and legal entitlements to people considered oppressed and unable to secure them without assistance, including those institutionalized in mental hospitals (Grob, 1983). Bachrach (1983) stated "deinstitutionalization sought to exchange physically isolated treatment settings for services to be provided in the patient's home communities, on the assumption that community based treatment is both more humane and more therapeutic" (p. 7).

A wholesale discharge of institutionalized CMI's occurred, moving patients from state mental hospitals back into the community. The resident census in state mental hospitals across the nation declined from 559,000 in 1955 to approximately 138,000 in 1980 (Goldman, 1983). During the same time span, the average daily census in the Arizona State Hospital fell from 1,638 in 1960 to 396 in 1984 (Contreras, personal communication, March 21, 1986). This decrease of 75% must be understood in the context of Arizona's population growing from 1,302,000 to approximately 2,800,000 in the same time period (Arizona Department of Economic Security, 1985). Thus, the percentage of Arizona residents receiving treatment at the Arizona State Hospital at any one time fell from .13% in 1960 to .014% in 1984.

With the advent of deinstitutionalization, the community was intended to become the "people's hospital" for the

chronically mentally ill. This responsibility included meeting the needs for financial support, low cost housing, socialization, medication, advocacy, vocational rehabilitation, and crisis intervention (Pepper & Ryglewicz, 1982). The development of community mental health centers, facilitated by the Community Mental Health Construction Act of 1963, would address, in theory, the resulting need for the provision of services to discharged patients at the community level (Lamb, 1982).

Despite the humanitarian intentions which provided its foundation, the deinstitutionalization movement failed to redirect those services previously provided at state institutions back into the community in the least restrictive manner (Messina & Davis, 1981). Although the living conditions and treatment opportunities offered in many institutions were marginal, for many chronically mentally ill, life in the community meant high rates of unemployment, a void of any structured activity, and deplorable living conditions (Lamb, 1982). Bachrach (1983) credits institutions with at least providing daily structure in the lives of the chronically mentally ill, which has not been the case for many following deinstitutionalization. "In simplest terms, the patients from our state hospitals have been discharged into the community, but the dollars to support their care have not followed" (Pepper & Ryglewicz,

1982, p. 389). According to the President's Commission on Mental Health (1978), the large percentage of those discharged from the state hospitals during deinstitutionalization are not even receiving a minimal level of care. Bachrach comments,

The shift to community settings did not, in general, lead to improved circumstances among the chronically mentally ill; despite their humane objectives and noble intentions, the initiatives of deinstitutionalization planners often resulted in patient neglect, as more and more individuals met the severe barriers to treatment (1983, p. 9).

Adequate care for the chronically mentally ill and their families should be a minimal requirement for the services provided via community mental health (Marshall, 1984). Schoeneman and Reznikoff (1983) state that living with a chronic illness can have a debilitating effect on the family members as well as on the patient. With deinstitutionalization has come a belated understanding of the role that families may play in the treatment of the chronic mental patients (Goldstein, 1981). Families have generally assumed the responsibility of primary caretaker since the implementation of deinstitutionalization (Beels, 1982; Thompson & Doll, 1982; Hatfield, 1978). In fact, some studies indicate that the return rate of patients to their families following long-term psychiatric hospitalization has ranged upwards of 50-86% (Thurer, 1983; Marcus, 1977; Hatfield, 1979). While statistics regarding the return rate

prior to deinstitutionalization are not available, a much smaller number would have returned due to the extensive length of hospitalizations. The return home frequently results in significant stress on family relationships. This stress can manifest itself through chronic strain (Kreisman and Joy, 1974), friction in family relationships (Dincin, Selleck & Streiker, 1978), anxiety, social isolation, depression (Fallon & Liberman, 1983; Beels, 1981; Doll, 1976), and disrupted marital relationships (Hatfield, 1978; Holden and Lewine, 1982). Vincent (1967), anticipating the potential impact of deinstitutionalization, warned that families might not be able to withstand the stress of coping with the CMI member following hospital discharge.

Identification of the Problem

Families with an adult chronically mentally ill member have responded to their situation in a manner characteristic of those confronted with stressful stimuli (Kreisman & Joy, 1974), including a presentation of "severe and chronic levels of frustration and tension" (Holden & Lewine, 1982, p. 626). The stress experienced by families with chronically mentally ill members can be attributed to several issues. Thompson and Doll (1982) contend that four factors explain the stressful burden experienced by families: overload, resentment, exclusion, and feeling trapped.

Although the exact etiology of schizophrenia, depression, and bipolar affective disorders has not been identified, families have often been implicated by mental health professionals for causing and maintaining the chronic illness (Creer, 1975; Lamb & Oliphant, 1978; Atwood, 1983). At the same time, families typically report receiving little or no help from professionals in managing or maintaining their mentally ill member in the family environment (Bernheim & Lehman, 1985; Leff, 1983). It is easy to understand how some families experience resentment and feel trapped. The "double bind" theory for the etiology of schizophrenia (Bateson, Jackson, Haley & Weakland, 1956) suggests that families place the ill member in situations in which any response would be rejected, leaving the person in a "no win" position. Mental health professionals can be accused of placing families with a chronically mentally ill member in the same sort of "double bind."

The lack of understanding, along with blame for causing the illness, results in distressing feelings for parents and families. Anderson, Hogarty and Reiss (1980) state, "Because it is difficult to understand the cause and meaning of unusual patient behaviors, these behaviors tend to stimulate feelings of inadequacy, guilt, anger, and concern" (p. 493). Several studies indicate that families

also experience depression due to their burdensome situations (Falloon, 1983; Lamb, 1982).

Families typically experience exclusion as a result of their situations. Social isolation can be of their own choosing or as a result of community (mis)treatment. Leff (1983) finds that families often experience stigma within the community, leading to feelings of shame and eventual withdrawal. Falloon and Lieberman (1983) contend that relatives of CMI's experience a decrease in social interactions when their mentally ill relative's inappropriate behavior causes them embarrassment or discomfort. Families may also lose interest in outside activities as their primary focus comes to rest on the care of their ill family member (Wasow, 1985). McKeever (1983) believes that families often experience a decrease in communication within their own unit as a result of their own "web of silence," thus increasing isolation within the family itself.

Many families report feelings of overload as a result of the constant attention they deem necessary to deal with their mentally ill family member (Platman, 1983; Hatfield, 1979). Since respite services have not typically been available, the burden of care remains unrelenting for most families (Hatfield, 1978, 1983). The family environment often deteriorates due to the above factors taken either individually or in combination.

The marital relationships of parents with an adult chronically mentally ill offspring often change due to the stress and tension of their situation. Bird, Schuman, Benson and Gans state, "a significant association exists between stressful life events and marital dysfunction" (1981, p. 486). The impact of an offspring's chronic physical illness has often been addressed. While some debate exists regarding the impact of a chronic illness on family and marital function, many researchers argue for the adverse effect that the illness typically produces on the quality of the parents' marital relationship (Shapiro, 1983; Lansky, Cairns, Hassanein & Lowman, 1968; Price-Bonham & Addison, 1978). "The presence of a chronically ill child has been consistently associated with marital tension" (Peters & Esses, 1985, p. 302). This tension may result in a reduction in the cohesion and quality of the marital relationship. The additional stress associated with the chronic illness appears to frequently have an adverse effect on the marital relationship.

A few studies document the negative impact that the illness associated stress has on the marital relationship of the parents. Hatfield (1978) states, "Parents as well as children are under severe stress when a family has to deal with a crippling illness, and marital relationships suffer accordingly" (p. 357). Her survey of families with a

chronically mentally ill member reveals that 20% of respondents report a significant marital problem resulting from the stress that the family experiences. Many marriages reach the point of separation or divorce prior to the diagnosis ever being made due to the severe stress created within the family (Wasow, 1985). Pepper and Ryglewicz propose, "Marriages, whether already shakey or fairly stable, may be stressed beyond tolerance, sometimes to the point of separation or divorce" (1984, p. 6). It appears that chronic mental illness may have the same adverse effect on the quality of marital relationships that chronic physical illnesses often yields.

As might be expected, individual family members frequently encounter significant personal hardships due to the chronic illness of their family member. According to Holden and Lewine (1982), family members' personal well being is often at risk, with depression, insomnia, alcoholism, hypertension, and heart attacks being found frequently. In one study, 50% of the relatives with a chronically mentally ill family member state that their own mental health had been adversely affected by the home situation (Zelitch, 1980). Individuals within the family unit may encounter serious personal problems as a result of the overtaxing and often unremitting stress.

Families of the chronically mentally ill identify several needs which, if addressed, would help them better deal with their situations and potentially reduce their levels of stress (Hatfield, 1978; Holden & Lewine, 1982). Families need information about the illness, including practical suggestions for handling disturbing behavior and an understanding of how the illness affects the ill person's mood, perception, and behavior (Test, Knoedler, Allness & Burke, 1985; Lamb & Oliphant, 1978; Zelitch, 1980). In addition, families need crisis services, respite care, housing for the mentally ill, and interaction with professionals who are understanding and non-accusing (Hatfield, undated; Bernheim & Lehman, 1985).

La Frontera Center (LFC) is a community based mental health center located in a large city in the southwestern United States. It provides comprehensive mental health services to a variety of client populations. The program for the chronically mentally ill includes an adult day program, the follow-up program, and residential/respite services. One component of the follow-up program is the Family Education and Support Project (FESP). The FESP provides education, skills training, support, and crisis intervention specifically for family members of chronically mentally ill persons.

The family education component of the FESP is based on the psycho-educational model developed by Bisbee and Mullaly (1983). Patient and family education in medicine traces its roots back to the early 1900s, when patients first began to learn about tuberculosis (Ruitenbeck, 1970). More recently, education programs have been utilized with psychiatric patients and their families (Osmond, Mullaly & Bisbee, 1978). Torrey (1983), in his landmark manual for families with a schizophrenic relative, strongly suggests that families educate themselves about the illness to better deal with their mentally ill member. Spaniol, Zippel and Fitzgerald (1984) contend that educational approaches are the treatments of choice in working with family members of the chronically mentally ill, and that families respond positively (Falloon & Lieberman, 1983; Fink, 1981; Shapiro, Possidente, Plum & Lehman, 1983). Education is a significant therapeutic tool for improving marital and family relationships in a number of theoretical approaches. An educational approach to therapy is used frequently in social learning theory (Patterson, 1976; Jacobson & Margolin, 1979) and Adlerian Psychology (Dinkmeyer & McKay, 1979; Hawes, 1982). Guerney (1977) utilizes an educational model to facilitate couples in relationship enhancement and skill development. Rogers (1983) serves as a strong advocate for employing humanistic approaches in educational training,

indicating that individuals experience more control, less anxiety, and respond better in treatment when such methods are employed.

Purpose of the Study

The purpose of this study was to assess the impact of a nine-week family psycho-educational program (see Appendix A) on the family environment, parental marital relationship, the psychological symptoms of the parents of the chronically mentally ill, and the parents' knowledge about the etiology, treatment, and phenomena of chronic mental illness.

Justification for the Study

Previous research has identified the effect that a chronic mental illness can have on the family, including the parents' marital relationship, family environment, and psychological symptoms experienced by individuals. Psycho-educational programs have been developed with the intention of providing families with the information necessary to better understand their chronically mentally ill member along with the nature of the illness. Goldstein and Doane (1983) identify three major psycho-educational programs currently utilized to address chronic mental illness. To date, little research has been done to document the effectiveness of these programs in meeting the needs identified by families of the chronically mentally ill. This study

examined the effectiveness of a psycho-educational program in improving marital relationships, family environment, the individuals' psychological symptoms and level of information about chronic mental illness for families with a mentally ill member.

Statement of the Research Hypotheses

The following research hypotheses were tested in this study:

Hypothesis 1: The couples participating in the psycho-educational group will show a significant improvement in the perceived quality of their marital relationships (as measured by the Dyadic Adjustment Scale) both at end of treatment and at follow-up when compared with couples not participating in the psycho-educational group.

Hypothesis 2: The couples participating in the psycho-educational group will show a significant improvement in the perceived quality of their family environment (as measured by the Family Environment Scale) both at the end of treatment and at follow-up when compared with couples not participating in the psycho-educational group.

Hypothesis 3: The couples participating in the psycho-educational group will show a significant decrease in their perceived psychological symptoms (as

measured by the Symptom Checklist-90-Revised) both at the end of treatment and at follow-up when compared with couples not participating in the psycho-educational group.

Hypothesis 4: The couples participating in the psycho-educational group will show a significant increase in their knowledge about the etiology, treatment and phenomena of chronic mental illness (as measured by the Mental Illness Questionnaire) both at the end of treatment and at follow-up when compared with couples not participating in the psycho-educational group.

Assumptions Underlying the Study

The validity of this study rests partly upon the following underlying assumptions:

1. Couples participating in this study are representative of other couples who have offspring afflicted with a chronic mental illness.
2. Couples participating in this study will respond honestly to the assessment measures.
3. The families with a chronically mentally ill member are "normal" families, no different than families without a CMI member.
4. The family does not "cause" schizophrenia, bipolar, or chronic depression through the communication

patterns and environment within the home. The etiology of chronic mental illness rests primarily within the physiological explanation. This is known as the "no blaming" model.

5. Education and information can have a positive impact on people and thus on their relationships.
6. The instruments used in this study are able to adequately assess the variables under investigation.
7. The participants' responses to the questionnaires fall within a normal distribution on the continuum of scores.

Definition of Terms

The following terms will be used throughout the study and are included for clarification and explanation.

Affectional expression: The perceived frequency of a married (or dyadic) partner's overt display of affection for the other partner.

Anxiety: An emotion and/or physiological response characterized by apprehension, tension, and uneasiness from anticipated danger or disruption (Campbell, 1981).

Bipolar affective disorder: Formerly called manic-depression. As defined in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DMS III), a bipolar disorder is one or more specific episodes of an elevated, expansive, or irritable mood that

lasts at least one week and has at least three of the following symptoms present: increased activity, increased talkativeness or pressure of speech, flight of ideas or racing thoughts, grandiosity, decreased need for sleep, distractibility, and excessive involvement in activities with a high potential for harmful consequences (American Psychiatric Association, 1980). See definition for depression for the criteria used to identify the depressive aspects of the disorder.

Chronically mentally ill (CMI): Persons whose emotional or behavioral functioning is so impaired as to interfere grossly with their capacity to remain in the community for indefinite duration. The mental disability is severe and persistent, resulting in long-term limitation of their functional capacities for primary activities of daily living such as interpersonal relationships, homemaking and self care, employment, or recreation (Arizona Department of Health Services, Division of Behavioral Health Services, Checklist for Chronic Mental Illness Determination, not dated).

Deinstitutionalization: The removal of persons who have already been hospitalized from their institutional environments and their transfer into the community

along with the prevention of hospitalization for those persons who might be considered potential candidates for institutionalization (Bachrach, 1976, pp. 1-2).

Depression: A mood, a syndrome, or a specific mental disorder. As a mood, depression is indicated by feelings of sadness, despair, and discouragement. As a syndrome, depression manifests as slowed thinking, decreased purposeful physical activity, and feelings of guilt or hopelessness. As a mental disorder defined by the DSM III, a dysphoric mood or loss of interest in all or almost all usual activities and pastimes that lasts for at least two weeks with a variety of additional symptoms present (American Psychiatric Association, 1980).

Dyad: A two-person relationship equivalent to marriage without the recognized social sanction of a marriage license.

Dyadic cohesion: The perceived extent to which a couple reaches mutual agreement about the different aspects of their relationship.

Dyadic satisfaction: The perceived level of gratification and sufficiency provided by the dyadic relationship.

Family: The basic unit of society, characterized by two (or more) generations of persons bound together by

marriage, blood, or adoption, who are emotionally dependent upon one another and responsible for their development, stability, and protection (Pinney and Slipp, 1982).

Major affective disorders: Includes major depression and bipolar affective disorders.

Marital relationship: A socially sanctioned relationship between two adults. Marriage often determines specific roles involving reciprocal obligations, duties, as well as rights (Pinney & Slipp, 1982).

Psycho-educational group: A treatment modality which focuses on providing information about the psychiatric and psychological aspects of mental disorders including etiology (without implicating the family), the role of the family, myths about the illness, treatment and management suggestions, community resources, and phenomenology of a schizophrenic, depressive, or bipolar disorder.

Psychological symptoms: A sign indicative of mental functioning often emotional in origin (Campbell, 1981). Psychological symptoms examined in this study include anxiety, depression, hostility, somatization, and interpersonal sensitivity.

Schizophrenia: A mental disorder characterized by delusions, hallucinations, incoherence, marked by loosening of associations, or illogical thinking lasting at least six months and accompanied by a deterioration from previous levels of occupational, social or personal care functioning (American Psychiatric Association, 1980).

Stress: An event or interference which disturbs the psychological and/or physiological functioning of an individual altering the existing state of equilibrium (Campbell, 1981). Stress can also refer to the individual's feelings of disequilibrium or imbalance. Stress is indicated by feelings of anxiety or depression.

CHAPTER 2

REVIEW OF THE LITERATURE

Today we stand at a major turning point in the history of care for the chronically mentally ill . . . families of the mentally ill will undoubtedly play a major role, both because of their current responsibilities as the primary caretakers . . . and because of their growing activism (Bernheim and Lehman, 1985b, p. 3).

This literature review addresses three important aspects that have led to the family's prominent role in treatment for their chronically mentally ill member. First, the theoretical understanding of the etiology and maintenance of chronic mental illness is reviewed from an historical perspective, with an emphasis on the role of the family. Secondly, this review examines the impact of an individual's chronic mental illness on the family. Parallels are drawn to the family's experience in dealing with chronic physical illnesses. Finally, the family's role in the treatment of these chronic mental disorders is presented, including the development of family psycho-educational programs. The available outcome research for these programs is reviewed. Due to its prominent role in the chronic mental illness literature, this review primarily addresses schizophrenic disorders.

The Etiology and Maintenance of
Chronic Mental Illness

The theoretical understanding of the etiology and maintenance of chronic mental illness, especially schizophrenia, has undergone significant changes in the past 4-5 decades. This section examines the major theories proposed during the 20th century to explain the development of schizophrenic disorders, highlighting those which emphasized the family's role in etiology and maintenance.

Since its formal identification by Kraepelin at the close of the 19th century, theories addressing the etiology of schizophrenia have come almost full circle. Beginning with an orientation emphasizing the biological basis for the disorder, popular theoretical positions moved into the ecological and radical environmentalist explanations from the mid-1940s into the 1960s. During this era, family systems theories gained prominence, contending that mental illness develops and persists as a result of dysfunctional family dynamics. The multidimensional conceptualization, currently enjoying general acceptance, replaced the strict environmental viewpoint. This multidimensional interaction theory attributes the etiology and maintenance of chronic mental illness to a number of interdependent variables (Liem, 1980). This theory includes a physiological orientation for etiology with psycho-social and biological variables impacting the maintenance of the disorder

(Woesner, 1983). The maintaining psycho-social variables typically include educational, sociological, and familial factors (Reid, 1983).

Schizophrenic-like behaviors have been described throughout history dating as far back as the early Greeks (Shean, 1978). Hippocrates, a Greek physician in the 4th century B.C., related emotional disorders to physiological problems and was the first to suggest that genetic factors were important in the etiology of these problems (Abrams, 1976). Supernatural, medical, and environmental views have been proposed throughout the centuries to account for bizarre and unexplainable behavior (Jorgenson, 1986). The prevalent etiological explanation typically varied depending on the social, religious, and economic climate of the times (Shean, 1978).

Despite this long history, the first official identification and description of schizophrenia is typically credited to Emil Kraepelin (Park, 1976). In 1899, Kraepelin completed the 5th edition of his widely accepted psychiatric text. One category in his classification of psychiatric disorders was called "dementia praecox," a syndrome described as an early mental degeneration. The symptoms resembled those associated with senile dementia; with confusion, flattened affect, and catatonic mannerisms serving as prominent symptoms (Shean, 1978).

Although Kraepelin retains credit for the basic concept of schizophrenia, his work seemed to borrow from the clinical experience of many colleagues, including Benedict Augustin Morel (Decker, 1978). In 1860, Morel identified symptoms of mutism, withdrawal, apathy, and periodic fits of rage in a 14-year-old male. Morel used the term "démence précoce" to describe the patient's syndrome. These symptoms had an early onset and were progressive in nature, indicating a serious cognitive impairment according to Morel (Decker, 1978).

The term "schizophrenia" was coined in 1908 by Eugen Bleuler (Decker, 1978). Taken literally, the word means "schison," to split, and "phrenos," within the mind, meaning the splitting of the basic functions of the mind (Shean, 1978). The afflicted person displays an incongruous combination of thoughts, feelings, motivation, and behavior. The mistaken notion of schizophrenia as a split personality is an incorrect, although unfortunately popular interpretation (Torrey, 1983).

Bleuler took exception with Kraepelin's conceptualization of schizophrenia as a disease which inherently carried harsh implications, little hope for recovery and a basic disregard for the importance of past experience (Shean, 1978). Bleuler broadened the concept of schizophrenia, describing it as a disturbed associational process varying

in intensity across a continuum (Decker, 1978). For Bleuler, a person need not exhibit floridly psychotic behavior in order to meet the criteria for a diagnosis of schizophrenia. In addition, he contended that early childhood experiences played a role in the development of the schizophrenic illness (Decker, 1978).

Early psychoanalytic theories disagreed over the role of early childhood experiences in the etiology of the illness. Freud and Abraham proposed that schizophrenia resulted from a large libidinal energy block caused by a psychic trauma during childhood while Jung attributed the illness to a chemical toxin (Torrey, 1983). Although Bleuler rejected the explanation that schizophrenia developed solely as a result of traumatic childhood experiences, he believed that the resulting symptoms could be attributed to either Freud's or Jung's hypotheses (Shean, 1978).

While the psychoanalytic camps remained divided over the role of childhood experience in the development of the disorder, the advocates of this viewpoint eventually won out. After the psychoanalytic community settled upon the belief that early trauma gave rise to the development of schizophrenic disorders, they sought to identify the source of these childhood experiences. "The only thing on which virtually all psychoanalysts could agree was that the source

of psychic trauma theoretically responsible for schizophrenia was in the interactions of the child and the parents" (Torrey, 1983, p. 91). Thus, parents were indicted for the development of this chronic mental illness almost from the start of the 20th century.

Kraepelin, Bleuler, and other leaders in the psychiatric community of the late 19th and early 20th centuries (including Rush of the United States, Greisinger of Germany, and Maudsley of England) considered schizophrenia to be a disease with a somatic etiology (Torrey, 1983). This viewpoint remained intact until the late 1930s and 1940s due to the widespread acceptance of psychoanalytic theory by the mental health community (Torrey, 1983).

In the late 1930s the first major epidemiological study of chronic mental illness was conducted, marking a shift in thinking about the etiology of chronic mental illness. Faris and Dunham (1939) studied the relationship between environment and the incidence of chronic mental illness, reporting on the distribution of the mentally ill in two large American cities. These authors found a correlation between rate of mental illness and socio-cultural environment. Urban centers contained a much higher number and percentage of mentally ill persons than would be expected. Faris and Dunham (1939) concluded that either social conditions in the urban setting helped predispose a

person to develop schizophrenia or that persons afflicted with the illness tended to band together with others in like circumstances.

The crowded inner city seemed to provide the gathering place for the chronically mentally ill, who often possessed limited means for maintaining higher standards of living. The inner city areas with the highest population density and lowest socio-economic status were overrepresented in the population of the mentally ill (Hollingshead and Redlich, 1958). Faris (1955) extended this research, contending that diminished social support, isolation, poverty, and an unstable social structure among the unskilled and immigrant population of the inner city could well explain this higher incidence rate. "It is now accepted that geographic mobility, social isolation, and low socio-economic class affect the distribution, prevalence and the course of schizophrenia" (Shean, 1978, p. 156).

Fueled by the findings of the epidemiological studies, the mental health community's perspective regarding schizophrenic disorders began to shift. The development and popularity of behavioral theory (which looked for more direct and observable explanations for the bizarre behavior), research linking the incidence of mental illness with urban environments, and emphasis on family (parental) influence from psychoanalytic theorists gave rise to the next

stage in conceptualization of chronic mental illness. The environment, particularly that found in the home, became the focus.

The Family Theories

Researchers and theoreticians in this new era looked to the environment to explain the development of schizophrenic disorders. Since the home environment served as the setting for the development of most behavior, the family became the logical focus of attention. A number of family theory models developed during this era to offer explanations for the development of schizophrenia. Freida Fromm-Reichman proposed the first of these models to look at the family's role (1948). She coined the term "schizophrenogenic mother" to describe mothers who, by their supposed attitudes of rejection and coldness, caused schizophrenic disorders in their offspring. With her "groundbreaking" theory, Fromm-Reichman created an image of parents, and mothers in particular, that persists to the present despite the absence of any real empirical support (Torrey, 1983).

The "double bind" theory (Bateson et al., 1955) was the next family theory to achieve prominence. This theory stated that schizophrenia developed due to the repeated presentation of contradictory cues from the environment. A "no win" situation results where compliance with one message

necessitates a rejection of the conflicting message. Since parents, and most often mothers, maintained the role of primary interactor and cue giver, they bore the responsibility for causing the development of schizophrenia.

Don Jackson (1957) proposed a model of family homeostasis to explain the etiology of psychological disturbances. According to this model, the family strives to reach a balance. Once achieved, they strongly resist any efforts to disrupt that homeostasis. Since change is inherent during the emancipation process of teenage years, children are discouraged from taking the necessary developmental steps due to parental messages conveyed in an attempt to maintain the family balance. This disrupted developmental process results in the development of a schizophrenic illness (Fischer, 1966).

As we might expect, several theorists of this era focused on the parental relationships in families whose members had developed a schizophrenic disorder. Lidz, Cornelison, Fleck, and Terry (1957) considered schizophrenia to be an extreme form of social withdrawal. Parents came under attack in this theory since they served as the primary models and teachers of the child's social interaction skills. Their study examined 14 middle and upper middle class families, focusing on parental communication. The

authors studied the communication patterns and characteristics of parents with schizophrenic children, describing their marital relationships with the terms "marital schism" and "marital skew." Marital schism, "a state of severe and chronic disequilibrium and discord" (p. 243) was noted in eight of the relationships. Marital skew, a lower level of discord but marked by serious pathology in the dominant marital partner, was found in the remaining six couples. The authors concluded, "The careful scrutiny of the 14 couples with offspring afflicted with schizophrenia reveals that the marital relationships of all partners were seriously disturbed" (p. 248). Lidz et al. (1957) did not find a single couple in their sample participating in an unimpaired marital relationship.

Other studies conducted in the late 1940s and early 1950s focused on the parent's marital relationship. Lidz and Lidz (1949) found that in a sample of 33 persons diagnosed with a schizophrenic disorder, 61% of the patients were products of home environments filled with strife. They reported inconsistent child-rearing patterns, broken homes, and significantly unstable parents in a high percentage of these families. Tietze (1949) reported that in 13 of 25 families studied, the mothers of offspring with schizophrenic disorders were basically unhappy.

Marital conflict served as the focus for several studies. In a sample of 71 males diagnosed with a schizophrenic disorder, Genard and Siegel (1950) identified open marital discord in 87% of the parents while only 13% of the comparison group exhibited observable conflict. Franze (1953) noted that over 50% of 23 sample couples with a chronically mentally ill child experienced severe conflict in their marital relationships, with relatively few exhibiting "normal" or only "moderate conflict." In comparison, 13 of the control couples fell in the mild conflict range. The control couples reported far less marital conflict than the experimental couples. According to Lidz (1985), "The patient's family of origin is always severely disturbed. . . . One parent, or both, has markedly disturbed ways of communicating" (p. 212). Each of these studies established a correlation between the status of the marital relationship and the existence of a schizophrenic disorder in the offspring rather than a cause and effect relationship. Through these studies, parents were none the less implicated in the development of a schizophrenic disorder in their offspring.

Many family interaction proponents felt strongly that the relationships within the family were responsible for the development and/or maintenance of schizophrenia. For example, Bleuler (1985) states "distressed relationships

within the family members are significant for the development of schizophrenia in women. . . . Statistics demonstrate that causal relationships do exist" (p. 168).

Despite the apparent certainty of contentions such as this, thorough reviews of the family interactional literature fail to support this belief (Jacob, 1975; Goldstein and Rodnick, 1975). Jacob (1975) reviewed the literature which empirically examined the four variables most often cited as significant in the family's contribution to the etiology of chronic mental illness. These variables include the domains of conflict, dominance, affect, and clarity of communication. His review of over 100 studies across these four variables established that no consistent outcomes were found for any of the four variables. At times, the outcomes across studies seemed to be directly conflicting. No definitive conclusions could be reached which in any way implicates families for the development of schizophrenia in their members.

Goldstein and Rodnick (1975) summarized their review of the family interaction by stating, "Currently, the evidence does not permit a clear-cut statement on the role of family factors in the development of schizophrenia" (p. 60). They cited the small and nonrepresentative samples, inadequate assessments, and post hoc designs as inherent problems in the literature to date. Although these

authors seemed to believe a link between family psycho-social factors and the development of the disorders might be established in the future, they were unable to document that contention with any empirical evidence. In his recent work, Torrey (1983) states, "due to the absence of any confirmatory evidence for these theories . . . both the psychoanalytic and family interaction theories of schizophrenia have lost their importance and are becoming of largely historic interest" (p. 94).

Multidimensional Theory

A multidimensional view of schizophrenia currently enjoys an almost universal acceptance (Torrey, 1983). This orientation hypothesizes that a variety of interwoven factors can best provide an adequate explanation for the development of schizophrenic disorders. These factors include genetics, physiology, environment, nutrition, and educational components (Reid, 1983; Arieti, 1979).

One element of this multidimensional model is the role played by genetics in the development of schizophrenic disorders (Torrey, 1983; Park & Shapiro, 1976). The three strategies typically utilized to establish the role of genetics include consanguinity and two branches of the twin study research. The first branch compares concordance rates for the development of schizophrenic disorders in monozygotic (identical) and dizygotic twins. The second

branch examines concordance rates for monozygotic twins separated at birth and reared apart (Cancro, 1978).

The consanguinity hypothesis states that when a genetic factor is operative, the illness will manifest itself in blood relatives to a significantly greater degree than it would in the general population (Cancro, 1978). Several studies have established this fact, finding the average estimated morbidity risk for developing schizophrenia within the immediate family ranging from 3-16%, exclusive of the twin relationship (Zerbin-Rudin, 1972; Cancro, 1978). The rate for developing the illness in the general population is approximately 1% (Sheids, 1967; American Psychiatric Association, 1980). In their Diagnostic and Statistical Manual of Mental Disorders, Third Edition, the American Psychiatric Association (1980) states, "All investigations have found a higher prevalence of the disorder among family members" (p. 186) than among the general population.

The second line of research supporting the role of genetics in the development of schizophrenia is the twin study research examining concordance rates for monozygotic (identical) and dizygotic twins when one member of the pair develops the disorder. Monozygotic twins share the exact same genetic structure due to the splitting of a single fertilized egg into two equal, yet distinct fetuses soon

after conception. Dizygotic twins share similar, but inexact, genetic compositions since two separate eggs are fertilized and develop simultaneously. If genetics does play a role in the development of schizophrenic disorders, we would expect to find a higher rate of schizophrenia in a monozygotic twin when the genetically equivalent cohort develops the illness than we would in dizygotic twins who do not share an exact genetic match.

A number of studies confirm the elevated concordance rates among identical twins, yielding rates of 25-50% compared with rates of 4-19% among dizygotic twins (Kringlin, 1968; Gottesman and Shields, 1972; Tienari, 1968; Pollin, Allen, Hoffer, Stabenau, and Hrubec, 1969). Cancro (1978) confirmed this finding in his review of the twin study research, stating that in virtually every twin study monozygotic twins experienced a significantly greater concordance rate than that found in dizygotic twins.

The final branch of research typically presented in support of the role of genetics deals with twins separated at birth and reared apart. If a genetic predisposition does exist for schizophrenia, we would expect to find a higher concordance rate of schizophrenia in twins with identical genetic makeup than the rate found in the general population, even when those twins have been reared in different environments since birth. Heston (1966) confirmed this

hypothesis, finding no significant difference in the rate of schizophrenic illness for those cohorts put up for adoption when compared with their twin who remained with the biological mother. The results of this work have been duplicated in a similar study conducted by Kety, Rosenthal, Wender, and Schulsinger (1968). "Since the publication of the careful work of Dr. Kety's research team, a significant genetic factor is now accepted by all but the most die hard defenders of psychogenesis" (Park, 1976, p. 118).

Research has established a foundation for accepting the role of genetics in the etiology of schizophrenia. However, genetics alone fail to fully account for the development of this chronic mental illness. We know this because all of the studies cited yield concordance rates of less than 100%. If genetics alone caused the development of a schizophrenic disorder, we would note a 100% concordance rate for individuals with the exact same genetic makeup when one twin develops the disorder.

The biochemical theory is a second component in the multidimensional orientation toward etiology and maintenance of chronic mental illness (Torrey, 1983). This segment of the model focuses on dysfunctional processes within the brain, asserting that they account for a variety of symptoms associated with schizophrenic disorders including auditory, visual, olfactory, and tactile hallucinations.

In recent years the biochemical theories of schizophrenia have focused on neurotransmitters, brain chemicals which facilitate the transmission of information between neurons. Dopamine, serotonin, and norepinephrine are the neurotransmitters receiving the most attention in this biochemical theory to date, although the scientific community is just beginning to learn about these vital physiological mechanisms (Torrey, 1983).

The biochemical theory contends that either an excess (in the case of dopamine) or a deficit (with serotonin) of certain brain chemicals account for the symptoms of schizophrenia.

The major support for this theory comes from the converging and related observations that drugs that increase DA (dopamine) activity tend to make schizophrenic patients worse and can cause schizophrenic-like symptoms in normals, and drugs that decrease DA activity improve schizophrenic symptoms (Lieberman, Marshall, Marder, Dawson, Neuchterlein, and Doane, 1984, p. 12).

Post mortem studies indicate that persons with schizophrenic disorders have higher concentrations of dopamine in their brain tissue when compared with "normals" (Mackay, Bird, Iverson, Spokes, Creek, and Snyder, 1980). In addition, studies using antipsychotic medication, which blocks dopamine activity, show a significant reduction in schizophrenic symptomology (Lieberman et al., 1984). Another biochemical theory suggests that the brain's metabolic process changes neurotransmitters into toxic components

which act as poisons in the afflicted person's system (Torrey, 1983).

The biochemical theory fits well into the multidimensional view, overlapping with the genetic explanation. This biochemical theory attributes the schizophrenic behavior to aberrant processing/levels of neurotransmitters, and the existence of faulty processing to inherited structural and functional brain anomalies (Torrey, 1983).

The nutritional theories gained popularity in the early 1950s. Hoffer and Osmond were the major proponents of the orthomolecular theories, later to be joined by the Nobel prizewinner Linus Pauling (Phillips, Phillips, Bisbee and Mullaly, 1983). These orthomolecular theories contend that schizophrenic symptoms occur when the body experiences certain deficiencies, especially vitamins B, C, thiamin, and certain minerals. According to this theory, subtle changes in the brain chemistry occur following the depletion and denial of essential nutrients (Pawlak, undated). "Orthomolecular psychiatry concentrates upon reducing the abnormally high levels of toxic chemicals present in the bodies of patients which are responsible for the perceptual, conceptual, and emotional disturbances symptomatic of their illness" (Pawlak, updated, p. 11). Treatments based on this

model consist of megadoses of various vitamins and minerals until the body reaches suitable levels.

The orthomolecular theory has been viewed as faddist and cult-like. To date, there is little empirical support for the theory. Outcome studies have failed to comply with rigorous empirical standards, thus compromising the validity of their results (Torrey, 1983). The main contribution of this model remains in its fervent contention that schizophrenia is a disease, thus providing support for families and persons afflicted with the disorder. Although nutritional theories have not been disproven, neither do they enjoy real empirical or popular support.

The final component to be discussed in the multi-dimensional view is the role of stress in the etiology of chronic mental illness. The diathesis-stress theory (Meehl, 1962) is a model which addresses the role of social support, education and stress in conjunction with a genetic predisposition for developing a schizophrenic disorder. This theory holds that the course of the schizophrenic disorder is a homeostatic balance between social-environmental factors and biological susceptibility (Falloon, 1986). According to Lieberman (1984),

A diathesis-stress interactive model for the formulation of schizophrenic symptoms consists of noxious social events combining with pre-existing vulnerability to produce intermediate states of sensory overload, hyperarousal, and impaired

processing of social stimuli. These intermediate states and their behavioral concomitants generate even more stressors leading to the appearance of schizophrenic symptoms and impaired functioning (p. 5).

The noxious social events that give rise to schizophrenic symptoms are beyond the individual's coping mechanisms. These events, coupled with reduced or no social support and limited problem solving skills result in schizophrenic symptomology (Lieberman et al., 1984). Thus, the absence of a social network that might otherwise provide assistance in coping with life's stressors, coupled with the lack of knowledge/educational/experience to utilize effective problem solving methods, leaves one susceptible to an overload of stressors.

Maintenance Variables in Chronic Mental Illness

No definitive conclusion has been reached to explain the cause of schizophrenia. The mental health community continues striving toward the identification of the causal factors in this devastating illness. A cure for the illness remains elusive. Until a cure is found, the effective management of the illness appears to be the best alternative. It seems worthwhile to distinguish between etiologic and maintenance variables in order to provide a focus for action while a cure for this disorder is pursued. Goldstein and Doane (1982) suggest an examination of the family factors considered to impact the course of the

illness as a way to attain the most effective management of the illness.

Two variables, expressed emotion (EE) and communication deviance (CD), are considered to be significant variables in the maintenance of chronic mental illness. The concept of EE was first identified in the work of Brown, Burley, and Wing (1972). Hostility, overinvolvement, and critical comments expressed by a significant other toward the patient comprise the construct of EE (Vaughn and Leff, 1976a; Brown, Burley, and Wing, 1972; Miklowitz, Goldstein, and Falloon, 1983). These researchers studied persons with schizophrenic disorders, their families, and the home environment. They discovered that the existence of an emotionally charged atmosphere had powerful prognostic potential for the course of the illness. When key relatives created an environment characterized by high levels of EE, the afflicted family member had a much higher likelihood of developing an earlier recurrence of symptoms when compared with patients from lower EE environments (Vaughn and Leff, 1981; Vaugh, Snyder, Jones, Freeman, Falloon, and Lieberman, 1982). While these researchers do not implicate families for generating the schizophrenic illness due to high levels of EE, they contend that this factor does add to the exacerbation of the illness.

The EE research has provided encouraging news for families. A number of research studies have demonstrated the efficacy of reducing levels of EE within the family environment to produce significantly lower relapse rates among the chronically mentally ill (Anderson, Hogarty, and Reiss, 1980; Leff, 1976; Leff, Kupiers, Berkowitz, Eberlein-Vries, and Sturgeon, 1982; Vaughn and Leff, 1976b). The encouraging findings of the EE research provided impetus for the development and implementation of programs designed to involve families in the treatment process (Falloon, 1986). The design and evaluation of these programs is presented later in this chapter.

While the EE research may provide useful assistance to families, it does not escape criticism. Hatfield, Spaniol, and Zippel (undated) question the simple labeling of families as "high EE" and "low EE," contending that a continuum would be more appropriate and realistic. They also cite concerns for the negative labeling associated with "high EE" and the disparity in classification across cultural groups. Parker (1982) criticizes the EE research for perpetuating the theories which implicate families in the etiology of schizophrenia.

A second maintenance variable under current study, called communication deviance (CD), focuses on the communication style present within the family environment. The

previously cited work of Bateson et al. (1956) provides the theoretical foundation for the CD line of research (Liem, 1980). Wynne and Singer (1985) have identified two general patterns of dysfunctional communication within families with a schizophrenic member which they call amorphous and fragmented communication. Amorphous communication is "a pattern of poorly differentiated, vague, and impoverished communication" (p. 236). A fragmented communication style is "a thought disorder with relatively clear, well differentiated moments of attending, perceiving, and communicating, but with a serious failure in the articulation and integration of the parts of the experience that, under favorable circumstances, they have been able to differentiate" (p. 236). Proponents of the CD research "agree that these are enduring characteristics of families of young adult schizophrenics which precede the onset of schizophrenia and contribute to its development" (Liem, 1980, p. 90).

This line of research hypothesizes that certain dysfunctional communication styles within families are associated with schizophrenic illness. "We have found that certain parental forms of focusing attention, communicating, and relating to others can be linked to specific forms of schizophrenic ego impairment in offspring" (Singer and Wynne, 1966, p. 260). The specific aspects of these aberrant communication styles are classified under the main

headings of closure problems, disruptive behaviors, and peculiar verbalizations (Singer and Wynne, 1966). They are further subdivided into 32 more specific categories of parental communication deviances (Singer, Wynne, and Toohey, 1978; Wynne, 1981).

The CD research is largely based on interaction tasks in which the family completes a group task, such as a family Rorschach, Thematic Apperception Test, Object Sorting Test, or other group project (Herman and Jones, 1976; Lieber, 1977). The communication patterns, style, and transactions are then analyzed using manuals developed by the Wynne and Singer group.

This branch of research has received mixed reviews. Support is based on several factors. An extensive number of studies has been conducted in the CD research, identifying the common occurrence of deviant communication styles within families of the chronically mentally ill (Singer et al., 1978; Liberman et al., 1984; Singer and Wynne, 1966). Liem (1980) claims "Wynne and Singer, in particular, have developed a program of research which has consistently demonstrated that communication deviance is a distinguishing feature of families with young adult schizophrenic offspring" (p. 90).

Critics of this line of research identify several areas of concern. First, they fault the CD research in its

generalization of communication patterns elicited from the ambiguous situations imposed upon the family in tasks such as the group Rorschach or TAT. Beels and McFarlane (1982) contend that research focusing on dysfunctional communication styles only furthers the feelings of stigma for families, without providing practical assistance to remedy potential problems. Terkelson (1983) believes that dysfunctional communications are more attributable to problematic therapist/researcher communications than to family shortcomings.

Critics of CD research highlight another major problem in this line of study. Until recently, the family has received little attention for the hardships they endure as a result of the illness. The issue of the "bidirectionality" of the disorder needs to be considered. All the CD research involves post hoc research designs in which the afflicted family member has already been diagnosed as having a schizophrenic disorder. Without accounting for the parents' pre-diagnosis communication style, "it would be equally plausible to interpret their findings as supporting the responsive explanation for parental communication behavior" (Liem, 1980, p. 101).

Researchers have assumed that family attitudes to deviance strongly influence the behavior of the former patient, particularly with regard to community tenure. Such a unilateral perspective has led them to neglect research aimed at distinguishing

the extent to which attitude of relatives are a function of the condition of the patients with whom they reside (Kreisman and Joy, 1974, p. 511).

Patterson (1975) states, "Children change their parents, just as parents contribute to the changes in the children" (p. 1). This "responsive" theory regarding schizophrenia contends that families are influenced by their family member as well as influencing them. The responsive theorists would suggest that existing communication deviances within the family probably result from the continuous stressors subjected upon the family by the mentally ill member. Thus, the problematic communication style developed "in response" to the realities of living with a relative afflicted with a schizophrenic disorder.

Liem (1980), voicing strong support for the CD research, admits to the problem of the exclusive use of post hoc designs and the feasibility of the "responsive" theory explanation. Two studies (Freeman and Simmons, 1963; Angrist, Lefton, Dinitz, and Pasamanick, 1961) found family attitudes to be a reflection of the ill family member's functioning rather than a determinant of it. While studying a sample of 66 men whose spouses required repeated psychiatric hospitalizations, Dunigan (1969) found that only after the second or third hospitalization did the husbands' expectations and level of tolerance significantly change. These studies support the responsive theory, showing that

the family changes their attitudes, interaction, etc. in response to the repeatedly stressful experiences, rather than causing them.

A series of research studies utilizing "artificial families" provides additional support for the "responsive theory" by clarifying some of the dynamics operative in communication between the chronically mentally ill person and the parents. In this research, the communication patterns and performance of both parents and adolescent males are examined. Two groups of parents, both with and without mentally ill sons, are crossmatched with diagnosed and "normal" adolescents. The resulting three-person combinations serve as the "artificial family," engaging in group tasks which are then reviewed for the effect on performance and style of communication.

Two studies have yielded results supporting the contention that the parents' performance is adversely affected by the presence of a family member with a schizophrenic disorder in the home. Covelman (1975) noted that the performance of both parent groups was negatively affected by the schizophrenic adolescents during a group task using the "artificial family" design. Waxler (1974), using a game of 20 Questions, found that parents with adolescents diagnosed with the disorder did not significantly change the performance of either adolescent group.

The performance of "normal" adolescents remained consistent while interacting with parents of both diagnosed and other "normal" adolescent males. Thus, there seems to be empirical support to document the claim that the presence of a child diagnosed with a schizophrenic disorder does impair the parent's performance. After years of continuous exposure, interaction with a family member afflicted with a schizophrenic disorder might have the cumulative effect of disrupting the parents' interactions and ultimately changing their style of communication.

Conclusion

Various explanations have been offered to account for the etiology and maintenance of chronic mental illness. During this century, these theoretical positions began with the acceptance of schizophrenic disorders as having somatic origins resulting from traumatic childhood experiences. The environmental view gained prominence with its focus on social and familial factors. Presently, a multidimensional theory enjoys popular acceptance. For many years, families were "credited" with playing a significant role in the development of schizophrenic disorders according to the most popular theories. Only recently have families been exonerated from playing an etiological role based on their interaction with the afflicted family member. The two prominent maintenance variables currently under study, EE

and CD, continue to keep families in a tenuous position. Responsive theorists contend that when and if these variables are identified in families with a member suffering with schizophrenia, they most likely developed in response to the constant pressure of living with this devastating mental illness.

The Impact of Chronic Illness on Families

A significant body of literature exists addressing the impact of a chronic physical illness on the family unit. Fewer researchers have examined the effects associated with a chronic mental illness. In fact, as previously noted, the focus has been primarily on the family's causative role in the etiology and maintenance of the chronic mental illness rather than as recipient or victim. There is, however, an emerging body of literature assessing the effects of chronic mental illness on a family indicating that these chronic disorders, like the chronic physical disorders, can produce significantly harmful consequences to families.

Chronic Mental Illness

The mental health field first addressed the impact of a chronically mentally ill member on the family in the early 1950s when Clausen and Yarrow (1955) edited a volume

focusing on the issue of chronic mental illness and families. They set the tone for the volume in the introductory comments,

Any severe [mental] illness of a family member created stress for the rest of the family. . . . Routines are disrupted. Relationships within the family are strained, sometimes to the breaking point. . . . The result may be anxiety for all members of the household and guilt and feelings of rejection for some (p. 3).

Families finally received public acknowledgment for hardships they had long suffered.

The work of Clausen and Yarrow served as a springboard for further research addressing the family's response to chronic mental illness. Yarrow, Schwartz, Murphy, and Deasy (1955) examined the sequence of reactions experienced by wives following their husbands' hospitalization for a psychiatric problem. The hospitalized sample included patients receiving diagnoses of both psychotic and neurotic disorders. The findings indicated that wives struggled through a difficult and painful process resulting from the uncertainty of the illness, bizarre behaviors of their spouses, little understanding of etiology, difficulty accepting the psychiatric explanation, and frustrating attempts to deal with the family and friends who had even less information and understanding of the disorder. The process, described by wives in post hoc interviews, was extremely stressful.

Several authors have described the stress associated with the presence of a chronically mentally ill member in the family. Agnes Hatfield, a leader in the family advocate movement, comments,

A growing body of literature testifies to the severe stress experienced by the families of chronically (mentally) ill children and to the strained family relationships and feelings of futility and entrapment. . . . At what risk to themselves do the families shoulder the colossal burden of caring for someone who is mentally ill?" (1978, p. 355).

Families generally experience an increase in tension as a result of living with a family member suffering from a chronic mental illness (Bernheim, Lewine, and Beale, 1982).

"Burden" is a term used in several studies to describe the additional stressors families experience due to a psychiatrically disabling condition (Reynolds and Hoult, 1984; Herz, Endicott, and Gibbon, 1979). "The burdens imposed by mental patients on their families in the era of deinstitutionalization are considerable" (Bernheim and Lehman, 1985b, p. 12). The family responds to the situation in ways common to anyone faced with stress (Kreisman and Joy, 1974). A number of studies examined the reactions of the family as they attempted to deal with the burden associated with living with a chronically mentally ill member.

In the early 1960s, Grad and Sainsbury (1963) examined the burden experienced by families when their

chronically mentally ill member returned home. Their study compared the levels of burden experienced by families who lived with their chronically mentally ill relative while he/she received treatment in a community care program, with families whose relative was treated in an inpatient hospital setting. Burden was measured by the CMI's effect on the family's income, routine (social, school, and domestic), problems with neighbors, and psychological strain. When compared with families of patients receiving primary treatment in a hospital setting, the families of the community care patient experienced a much higher level of burden. This study found that 60% of these 410 families experienced higher levels of burden, with 42% reporting some burden and 18% severe burden. At a 2-year follow-up, the reported level of burden still existed but at a lower rate, with 36% of the sample identifying some or severe levels.

Hoenig and Hamilton (1966, 1969) also studied the effect of chronic mental illness on families by examining the associated perceived burden. In their earlier work, two-thirds of the families reported that the chronically mentally ill member negatively affected the household. Their later study of 179 families who had lived with the ill family member for a minimum of the preceding four years discovered that more than 50% of the sample experienced significant burden, with 14% of these reporting severe

burden and 40% a moderate level of burden. Creer and Wing (1974) found similar results in their interviews of 80 relatives of CMI's. In their sample, 50% reported experiencing a severe level of family burden and an additional 20% showed a minimum level as a result of the impact of the illness.

The burden experienced by families in association with the chronic mental illness is typically multifactoral. Pai and Kapur (1981) interviewed relatives of 40 CMI's, exploring the various aspects of the experience that contributed to their burden. Families identified a number of key issues including a financial drain, decreased leisure activities, and disrupted family interactions which often resulted in a deterioration of family and marital relationships. "Family members who have a psychiatric disorder can and frequently do have profound effects on other family members" (Kreisman and Joy, 1974, p. 34).

Hatfield's 1978 study confirmed this multidimensional aspect of the family's illness associated stress. She surveyed 250 families in the Greater Washington D.C. area, investigating how caregivers were affected by their relative's illness. Eighty-nine of the 107 returned questionnaires were usable. Respondents were mainly female, with above-average education and income levels. Sixty-five percent of the sample reported experiencing significant

stress in association with the illness, stating that the unpredictable nature of the disorder kept them on constant guard, resulting in elevated levels of tension. They cited a number of disruptive elements contributing to their stress, including disruptions in the social and personal lives of family members, a detrimental impact on the parents' marriage, hardships for siblings, excessive burden on certain individuals (mothers) within the family, and widespread emotional burdens.

An additional source of stress for families, especially for the parents of the chronically mentally ill, lies in the lack of understanding exhibited by the community and the mental health field, which adds to their feelings of guilt and isolation (Lamb, 1982). Bernheim et al. (1982) commented, "unlike parents of a physically disabled child who receive support, sympathy, and respect of friends, family, and professionals, parents of an emotionally disabled offspring may be ostracized and stigmatized" (p. 177). Dincin et al. (1978) agree, "Parents of the emotionally ill are a much maligned group" (p. 607). Hatfield's survey (1978) identified the commonality of parents' feelings of resentment towards mental health professionals and the community due to their perceived lack of understanding.

Parents have been directly implicated in the etiology of psychiatric illnesses (Fromm-Reichman, 1948; Bateson et al., 1955; Lidz et al., 1949). This view of family causality persists despite the absence of supporting documentation (Wasow, 1985; Torrey, 1983). Leff (1983) contends that a significant aspect of the burden experienced by families occurs because "they are often carrying the major burden of community care with little or no support from the medical and social services . . . (while also being) implicated in the perpetuation of symptoms in a number of psychiatric conditions" (p. 177).

Due to implications regarding their role in the etiology of the illness, parents often retreat into a "web of silence," avoiding any discussion of the problems connected with the illness as way of handling the associated stress (Bernheim and Lehman, 1985). McKeever (1983) identified a decrease in communication within the family itself as they attempted to downplay the illness. Turk (1964) found that, as a result of the overwhelming burden experienced by families, 60% did not discuss the family member's diagnosis with others outside the family. "An atmosphere of secrecy and shame is highly stressful for all family members" (Bernheim et al., 1982, p. 183), but unfortunately exists for many families.

Studies addressing the issue of isolation and feelings of social stigma have yielded seemingly contradictory results. Herz (1984) interviewed 80 relatives with a family member afflicted with a schizophrenic disorder, finding little sense of perceived differential treatment toward them due to the status of their CMI relative. McFarlane and Beels (1983) indicated that, although they often do not report feeling stigmatized, families typically behave as though they did.

Chronic mental illness can be debilitating not only for the patient but for other family members as well (Schoeneman and Reznikoff, 1983). In a study of 100 parents with offspring diagnosed as having a schizophrenic disorder, Korkes (1959) found that many parents underwent significant changes in the areas of marital relationships, personal values, and child rearing practices, especially when they accepted personal responsibility for their offspring's illness.

The Impact of Chronic Mental Illness on Marital and Family Relationships

The negative impact of a chronic mental illness on the marital and family relationships has been reported with increasing frequency in recent years. Hatfield (1984) states, "Marriages suffered as a result of this severe problem and family members felt keenly the loss of time and

energy for leisure activities and interpersonal relationships" (p. 310). Pepper and Ryglewicz (1984) believe that many marriages become stressed to the point of divorce or separation, regardless of the quality of the relationship prior to the illness.

These results have been based both on research studies and clinical experience. In Hatfield's (1978) study of families living with their chronically mentally ill member, 20% of the 89 respondents reported significant marital disruption due to the illness. Respondents identified feeling overtaxed, with each partner attributing blame for the illness to the other. In another study, Holden and Lewine (1982) surveyed 203 families with a schizophrenic member. Seventy-seven percent of the respondents reported an increase in family tensions since the onset of the illness, with 25% identifying a resulting major family disruption such as divorce. A significant minority of the sample indicated a positive impact on the family environment as a result of the illness, with 18% indicating an increase in family closeness since the onset. Five percent of the sample reported no change in family relationships. Arieti (1979) accounts for these apparent exceptions to the effect on the family by hypothesizing that, for some, the bond grows stronger as the family pulls together to handle the crisis.

Based on their clinical experience in working with families in support group settings, Lamb and Oliphant (1978) concur that the patient's illness can and does place severe strain on the marital relationship of the parents. Arieti (1979) reported similar results from his clinical experience, stating "a survey of families of schizophrenic patients reveals the marital unhappiness is more common and more pronounced than in families of the general population" (p. 211). Bleuler (1985) identified distressed parental relationships in many of the families with schizophrenic members.

A disruption in the parents' marital relationship is not surprising in light of the often unremitting stress they experience. Bird, Schuman, Benson, and Gans (1981) demonstrated the significant relationship between stress and marital difficulties. Two groups of 29 couples were matched on demographic variables. Using the Holmes and Rahe Social Readjustment Rating Scale (1967), the authors found marital problems occurring twice as frequently in couples experiencing major stressful life events when compared with an equivalent group which did not experience the corresponding levels of stressful events. Fredrickson (1977) noted similar findings in his study of couples participating in marital therapy. When comparing 10 couples in a marital therapy group with 10 control couples, the therapy couples

reported a significantly higher number of stressing life events occurring than the control couples. However, methodological concerns involving the comparability of the two groups and the possibility that involvement in marital therapy necessitates the occurrence of stressful changes for the couple compromise the findings of this study. Bird et al. (1981) commented, "It is surprising, then, that meager scientific effort has been devoted to exploring the possible relationship between stressful life changes and marital and family dysfunction" (p. 486).

The excessive demands placed on individual family members often produces a detrimental effect on the family environment. "The strain of the demands and behavior of the ill person may cause healthy family members to drift apart, to fight with one another . . . and generally become more isolated. The splitting up of the family . . . further increases the burdens of chronic care" (Bernheim et al., 1982, p. 73). The cycle perpetuates itself as families drift further apart with diminished cohesion. Ordinary conflict becomes easily blown out of proportion with the constant state of tension that exists (Bernheim and Lehman, 1985b).

Siblings of the chronically mentally ill person often suffer adverse consequences. Hatfield's 1978 study indicated that other children in the family are typically

neglected due to the excessive demands for attention required by the mentally handicapping condition. Feelings of jealousy toward the chronically ill family member are not uncommon for the healthy sibling (Torrey, 1983). "Overall, a picture of unremitting disturbed family life emerges from the responses of those surveyed" (Hatfield, 1978, p. 358).

The problems for siblings are extensive. Torrey (1983) provides an overview, highlighting issues of resentment, survivors syndrome, imagined responsibility for causality because of the healthy sibling's past misdeeds, embarrassment, and anxiety about the possibility of developing the illness.

Impact of Chronic Mental Illness on Parents' Psychological Symptoms

In addition to the illness' adverse effects on parental and family relationships, the mental health of other family members is at stake (Hatfield, 1984). Falloon and Liberman (1983) discovered that families of persons with schizophrenic disorders often experience feelings of burnout and anxiety, as well as reduced social interaction because of the patient's behavior. "Relatives speak of being constantly on the knife edge, living on your nerves of feeling in constant dread of relapse and flare ups of symptoms" (Falloon and Liberman, 1983, p. 119). Family members commonly experience feelings of anxiety, depression, and

guilt. These illnesses impose significant emotional tolls on families, challenging their ability to cope (Bernheim and Lehman, 1985b).

Thompson and Doll (1982) examined the emotional and psychological costs to family members who had assumed the role of primary caretaker for their chronically mentally ill relative. They interviewed 125 family caregivers six months after their ill family member was discharged from the hospital. The authors assessed several factors including feelings of shame, overload, resentment, and being trapped. The findings indicate that 73% of this sample were adversely affected in one or more ways, with 45% reporting moderate burden and 27% indicating that they felt a severe burden due to the strain of the caregiver role. "Families have been placed in an emotionally demanding, often untenable situation and may feel psychologically burdened by it" (Thompson and Doll, 1982, p. 386). These emotional burdens were experienced by virtually all families regardless of race and social class. The last, and possibly most significant finding states that the "objective" and visible burden experienced by families of the chronically mentally ill accounts for less than 10% of the "subjective" burden experienced.

Additional studies confirm the adverse effect of the illness on the mental health of other family members. Doll

(1976) found that 50% of 123 families reported that their own mental health had been adversely affected by the impact of the illness. Families attributed this to the strain placed on their financial situation, reduced leisure activities, and feelings of anger and frustration. Anderson, Hogarty, and Reiss (1980) concur, proposing that many families experience chronic stress due to feelings of anger, anxiety, and sadness.

Arey and Warheit (1980) undertook a major epidemiological field survey of 4,202 adults in the southeastern United States. A total of 779, or 19% of those surveyed, reported the presence of a family member with a mental health problem. Within that group, 31% of respondents experienced problems with depression, 29% with anxiety, and 27% with psycho-social dysfunction. A mental health problem for one member of the family has widespread effects within the system.

While research has recently begun to assess the impact of chronic mental illness on families, this literature remains in its developing stages. Hatfield (1984) contends that we currently lack sufficient literature to assess the burden of chronic mental illness on families, proposing an examination of the research addressing the effects of chronic physical illness on families to better understand the mentally handicapping condition. She states,

A number of therapists have recently made a decided shift in problem definitions of families of the mentally ill and have come to view them in the same way any other family devastated by a traumatic event is viewed--the birth of a severely handicapped or retarded child or the onset of a terminal illness (1984, p. 316).

A diagnosis of chronic mental illness has also been equated with being confronted with the impending death of a close family member as a result of other physical etiology (Raymond, Slaby, and Lieb, 1975). To gain a better understanding of the debilitating effects of chronic illness on families, the literature addressing chronic physical illness is reviewed.

Chronic Physical Illness

A variety of chronic physical illnesses have been researched to examine their impact on the family life. These include diabetes (O'Daugherty, 1983), cystic fibrosis (Burton, 1975; Schulman, 1976; Leiken and Hassekis, 1973), cancer (Drotar, Crawford, and Bush, 1984; Hamovitch, 1964; Cairns, Clark, Smith, and Lansky, 1979; Kaplan, Smith, Grobstein, and Fischman, 197; Binger, 1969), spina bifida (Tew, Laurence, Payne, and Rowsley, 1977), mental retardation (Price-Bonham and Addison, 1978), and kidney disease (Gutch and Stoner, 1979).

There is a general consensus that the diagnosis of a permanently disabling illness results in crisis for the family, with the unit experiencing a number of stressors due

to the need for adaptation to the ill family member's condition (Roesel and Lawlis, 1983). Chronic physical illness has an enormous impact on the family (Newell, 1976). The suspense and uncertainty of the illness contributes significantly to the difficulty in establishing a stable adjustment point (Travis, 1976). Travis states, "A long duration of any stress wears away at the capacity to cope with it" (1976, p. 328).

Families with physically handicapped members are particularly vulnerable to stress (Gallagher, Beckman, and Cross, 1983). One source of stress for parents occurs when the handicapped family member doesn't pass the developmental milestones as expected. Parents may feel social stigma when a noted difference becomes apparent between their child and peers. In addition, difficulty in managing the child, atypical behavior patterns, a slower rate of progress, and the associated financial burdens can add to the stress experienced by parents (Bristol, 1979). Drotar et al. (1984) found that the parents of children with diabetes typically became quite distressed due to the increased demands of child rearing and decreased mutual support. Increased parental conflict often resulted.

Winkler (1981) believes that the stigma frequently experienced by families in social interactions and the burden of extended care results in lifetime stressors. As a

way of compensating, families often retreat into social isolation (White, 1978), avoiding the very outlet from which they could benefit. Families tend to withdraw from their social network, embarrassed and unable to reach out for support (Turk, 1964). White (1978) outlined the perpetuating cycle of withdrawal, perceived inadequacy due to the social isolation, further retreat into isolation, etc.

The stress associated with the chronic physical illness is manifested in ways similar to those found with chronic mental illness. Disrupted marital and family relationships, increased physical illness, and symptoms of psychiatric distress are fairly common in families with a chronically physically ill family member (O'Daugherty, 1983; Shapiro, 1983).

The Impact of Chronic Physical Illness On Marital and Family Relationships

Disrupted marital relationships occur frequently when parents experience the chronic physical illness of the offspring. Marital distress in the families of chronically physically ill persons has been reported across many illnesses (Farber, 1959; Holroyd, 1974; Marcus, 1977; Peck, 1979; Cairns and Lansky, 1980). These relationship difficulties occur as a result of the continued stress, financial drain, feelings of guilt and anger, and deteriorating communication between partners (Shapiro, 1983; Lansky, Cairns,

Hassanein, Wehr, and Lowman, 1978; Gallagher, Beckman, and Cross, 1983).

Beckman (1983) found marital problems to be an indicator of the stress experienced by families with handicapped children. Using the Holmes and Rahe Scale of Recent Experiences (1967) to identify recent stressors, he identified elevated levels of marital problems and depression in the parents of 31 handicapped children. In a sample of parents with children afflicted with cancer, Peck (1979) found 25% of the couples reporting strained marital relationships. Cairns and Lansky (1980) studied two samples of parents, one whose children were victims of cancer and the other hemophilia. In comparison with a sample of 71 control couples, both samples with ill children showed significant marital disharmony. The parents of the cancer patients displayed elevated rates of marital difficulty when compared with the parents of hemophilia patients. "The present findings document the stress these parents of children with cancer and hemophilia undergo, both individually and in their marital relationships" (Cairns and Lansky, 1980, p. 40).

Tew et al. (1977) conducted a three-year study on the divorce rates in 142 families whose children were born with spina bifida. They discovered that the sample of families whose child died shortly after birth experienced a

divorce rate three times higher than that of the general population. The divorce rate increased to nine times the rate of the general population when the child survived through infancy. Thus, producing and living with a child suffering from this chronic condition for a short time period yielded significant marital problems, but not as devastating as living with a child suffering with this illness for a prolonged period.

Parents of children with cystic fibrosis identify a definite strain on their marriage as a result of the illness (Schulman, 1976). The constant stress associated with diabetes has yielded similar detrimental effects on parental relationships (O'Daugherty, 1983).

Not all research examining the effect of a chronic physical illness on parents had yielded consistently discouraging outcomes. Roesel and Lawlis (1983) found mixed results in their examination of the divorce/separation rates in families with a disabled member. Overall, the divorce rate in their experimental group was comparable with the divorced rate of the general population. They did find an increased rate of marital disharmony existing for older women when the child stricken with the chronic illness was the only/oldest child. The divorce rate for the couples participating in a genetic screening group or counseling was lower than the rate found in the general population.

An increased divorce rate serves as one indicator of increased marital disruption. Shapiro (1983) suggests that marital disruption occurs frequently in families of the chronically physically ill even when divorce is not the final outcome. Travis (1976) found distorted relationships occurring frequently in families, with the typical pattern including the enmeshment of the mother with the chronically ill family member while the father tended to abdicate his responsibility to the family. In her small sample of nine families dealing with asthma, Travis (1976) found four families living in a constant state of crisis with the parents' marriage suffering adverse effects, although not necessarily divorce. Shapiro (1973) found marital dysfunction occurring frequently, with the stress of dealing with the chronically ill child often "destroying family life." This was not necessarily reflected in an increased divorce rate.

Problematic communication in the parental marital relationship is often cited as a significant reason for the marital deterioration which often occurs. McCollum (1981) stated that parents feel alienated from one another. As noted earlier, a trend toward social isolation may occur (Shapiro, 1983; Anthony, 1970). When the increased isolation and decreased support compound, the level of communication often deteriorates, yielding a higher likelihood of

adjustment problems (Tropauer, Franz, and Dilgard, 1977). Moos (1977) writes, "A serious illness may make it difficult to keep communication lines open and to offer comfort and support at the very time when these are most essential" (p. 11). Travis (1976) notes that when the parental grief becomes substantial, "lack of communication between the parents is characteristic" (p. 56). "In response to chronic and/or fatal illness, parental communication ceases altogether as a result of psychological processes of guilt, blame, denial, and depression" (Shapiro, 1983, p. 922). Families with a child suffering from cystic fibrosis have shown communication problems in the marital dyad, although the illness may simply exacerbate preexisting marital problems rather than create them (Venters, 1981).

The family environment and other relationships within the family are often significantly affected by the chronic physical illness. "[T]he literature indicates that, regardless of its specific nature, a child's chronic health problem alters the quality and quantity of intra- and extra familial communication" (McKeever, 1983, p. 212). Although the family's response to the situation will vary, many families experience a negative result. "Serious and prolonged illness . . . is a common source of stress that poses major problems of adjustment, not only for the patient, but also for the family members" (Kaplan, Smith,

Grobstein, and Fischman, 1977, p. 8). In their study of 50 families affected by a child with leukemia, 87% failed to successfully resolve even the initial coping tasks (Kaplan et al., 1977).

Siblings of the chronically physically ill often suffer adverse consequences because of the condition. McKeever (1983) states, "the available research strongly suggests that siblings of chronically ill children are a population at risk" (p. 210). Due to the extensive devotion of the parents' time, attention, and financial resources to the ill child, the healthy siblings frequently feel ignored and isolated. The usual pattern of parental response sees the mother serving in the caretaker role for the sick child, while the father attempts to manage the remainder of the responsibilities for the healthy children (Cairns et al., 1979). Siblings are frequently kept uninformed about their family member's illness. In a study of families affected by cystic fibrosis, Burton (1975) found that over one-half of parents never discussed the illness with the healthy siblings while most of the remaining parents gave very little information to explain the situation. The healthy siblings remained isolated and confused.

"Negative" attention seeking behaviors are common ways for the healthy siblings to regain the lost attention of parents. Common among the exhibited behaviors include

enuresis, encopresis, poor school performance, disturbed eating habits, aggression, and somatic complaints (Shapiro, 1983; Cairns et al., 1979). Siblings of the chronically physically ill are more likely to experience adjustment or behavior problems than their peers (Allen, Townley, and Phelen, 1974; Gath, 1972; Lavigne and Ryan, 1979).

A detrimental impact on the family and social life for siblings has been reported in several chronically disabling conditions. "It can be argued that the family's emotional climate changes to the extent that the socialization process and general well being of healthy siblings may be jeopardized" (McKeever, 1983, p.212). In a sample of 50 families with handicapped children, McMichael (1971) found poor coping behaviors and marked jealousy in siblings. Other studies have shown siblings of children afflicted with cystic fibrosis to exhibit higher rates of delinquency, learning problems, and school adjustment problems (Tropauer, Franz, and Dilgard, 1977). "By creating social circumstances that differ from conventional norms, a child's chronic illness attenuates the family's relationships with the broader community" (McKeever, 1983, p. 212).

Although individual families and marital couples certainly use the experience of a chronically physically disabling condition as an opportunity to draw closer

together and increase the quality of their relationships, for many the situation creates much hardship.

Impact of Chronic Physical Illness on
the Family's Psychological Health

Another frequently identified effect of chronic physical illness on the family is a deterioration in the mental and physical health of other relatives. "Parents of children with chronic, life-threatening disease have been described as subject to a variety of emotional problems, such as guilt, depression, and anger" (Cairns and Lansky, 1980, p. 29). Parents are not the only family members who exhibit a detrimental outcome due to the illness. Shapiro (1983) states, "often the sibling suffers even more psychological distress than the affected child" (p. 922). The impact of the illness can be pervasive in the family.

Elevated levels of depression, anxiety, anger, and guilt stand as the most obvious areas of impaired psychological health (Leahy and Wright, 1985; Shambaugh and Kanter, 1969; Paykel, 1974). McKeever (1973) found excessive anxiety and lowered self esteem common to parents with a child diagnosed with cystic fibrosis. In another study of 240 fathers with mentally retarded children, a significant segment experienced excessive levels of depression, impaired self esteem, and dissatisfying relationships (Cummings, Bayley, and Rie, 1976). Shapiro (1983) states, "Parents of

affected children often display both psychosomatic and psychiatric illnesses, especially depressive disorders. Parents may also experience sleep disturbances, nightmares, increase in smoking, anorexia, and a need for tranquilizers and sedation" (p. 921). "There exists some research evidence to support the belief that higher levels of depression and anxiety exist in mothers of handicapped children than in the general population" (Shapiro, 1983, p. 921).

Family members are challenged to maintain their own level of psychological health when a chronically handicapping condition or illness exists within their environment. They can be susceptible to a variety of emotional difficulties because of the constant stress inherent in the situation.

Conclusion

Families of the chronically physically and mentally ill live with a burden that can easily prove excessive. Marital and family relationships are often negatively affected, along with an increase in psychological symptoms and difficulties. While families do not necessarily experience detrimental effects because of the chronic illness conditions, these negative outcomes are common. The family can avoid a devastating outcome or reduce the severity of the problems by seeking effective treatment for themselves and for their chronically ill family member.

The Parents' Role in Treatment for Their
Chronically Mentally Ill Child

Parents of the chronically mentally ill were, for many years, relegated to an observer role in the treatment process for their family member (Appleton, 1974). "In the past, the parents of schizophrenics have generally accepted passively whatever treatment was meted out to them" (Lamb, 1982, p. 91). Parents frequently complied with this role due to the prevailing beliefs concerning their role in the etiology and maintenance of the disorders, along with the accompanying guilt and shame (Lamb and Oliphant, 1978). With isolated exceptions, parents remained excluded from treatment unless the focus was to move beyond the "identified patient" to address the family dynamics assumed to have caused the disorder (Hatfield, 1984a; Spaniol, Zipple, and Fitzgerald, 1984).

Many members of the mental health community excluded parents from treatment primarily due to the noxious influence attributed to them. In addition, the commonly accepted treatment procedures followed by the classic medical model focused on the individual as patient and was typically oblivious to family involvement (Pepper and Ryglewicz, 1984). According to Lehman and Bernheim (1985), a number of additional factors help account for the mental health community's reluctance to involve families in treatment. These include the issue of confidentiality, the

professional's frequent difficulty in dealing with the family's anger and denial, and dependency needs often existing in families of the chronically mentally ill.

The exclusion of parents from the treatment process due to the unsubstantiated but often cited role in etiology (Rothman, 1971) may serve as an excuse for frustrated professionals. Uzoka (1979) found that professionals label families as dysfunctional when they do not meet the therapist's own definition of healthy family functioning. When professionals view families as, by definition, dysfunctional due to the very existence of this illness (Fromm-Reichman, 1948; Bleuler, 1985; Bateson et al., 1955), families are destined for frustration. It is not surprising then that in one survey, 57% of mental health professionals did not experience sufficient cooperation from families (Mirabi et al., 1985). While professionals may feel frustrated, families often have been left to their own devices.

A discrepancy exists between levels of empathy and the delivery of quality care as perceived by professionals and that experienced by families. A comment by Theodore Lidz (1985) exemplifies this disparity. Lidz (1985) comments on criticism directed toward his model of family functioning which finds inadequate parental relationships in all families with a chronically mentally ill person. He

states, "Indeed, recognition of the serious difficulties from which parents are apt to suffer has enabled therapists and social workers to understand them, empathize with them and help them cope with the tragedy of having a schizophrenic offspring; and perhaps, modify the noxious family transactions" (p. 227).

Families, as a rule, have not experienced this understanding and caring from professionals. Research demonstrates that the parents' satisfaction with the treatment provided to the ill family member, along with their involvement in that process, has been minimal (Bernheim and Lehman, 1985). For many years, families have felt misunderstood by the professionals in the medical and social service community (Lamb, 1982; Holden and Lewine, 1982). Parents often feel "ignored, treated as strangers, adversaries, and toxic influences" (p. 2) at the very time they need professional help the most (Pepper and Ryglewicz, 1984). In Hatfield's 1978 study of 89 families of the chronically mentally ill, other family members or friends were perceived as more helpful than the professionals working with the family and their mentally ill member.

Other studies document the family's dissatisfaction with treatment. Bernheim and Lehman (1985) surveyed 500 families to assess their view of treatment and mental health

professionals. In 91% of the 203 returned surveys, respondents expressed a primarily negative view. Over half (54%) felt that the mental health professionals did not involve families in treatment, while two-thirds of the respondents lacked confidence in the personnel making treatment decisions. The major complaints included receiving too little practical information about the illness and few useful behavior management suggestions.

The Center for Rehabilitation Research and Training in Mental Health also documented the dissatisfaction experienced by families. Approximately 75% of the 281 family members responding indicated that current treatment services were unsatisfactory (Anthony, 1983). Lamb (1982) summarized the family's plight. "Families of schizophrenics have received too little help from mental health professionals, even though in many cases families are the real primary care agents for long-term, severely disabled patients" (p. 104).

When parents do become involved in treatment, their contact with professionals often leaves them feeling guilty and defensive. There is some evidence that the family members begin to adopt the negative beliefs and attitudes conveyed by professionals and the community, adding to their levels of stress (Terkelsen, 1983). Spaniol et al. (1984) identified a major source of the family's frustration when

they stated, "Families want practical advice and information while professionals like to focus on family dynamics and emotional expression" (p. 78). While some professionals charge families with having unrealistic expectations regarding the illness, Holden and Lewine (1982) found that families typically possess a rather realistic picture of the illness and its outlook. Instead of easy answers, families struggle for information and support.

As long as the focus of etiology remains on the family and current treatment practices exclude them, parents will feel blamed (Hatfield, 1984). Involving families in the treatment process can be a significant factor in the effective management of chronic mental illness. "Accumulating evidence confirms the importance and clinical value of working with the family" (Pepper and Ryglewicz, 1986, p. 2). Graziano (1974) stressed the importance of using families as co-therapists in treatment. "Family education is a vital part of any community treatment program for schizophrenia" (Phillips et al., 1982, p. 31). Pepper and Ryglewicz (1986) contend that treatment programs for the young adult chronic patient (aged 18-35) must include family involvement, education, and support. Attempts to include the family as an ally in treatment rather than as a scapegoat "has proven much more beneficial for both the patient and the family" (Bisbee, 1983, p. 210). "Providing support to the family

frequently is as important as providing support to the patient" (Stein and Test, 1982, p. 66). Focusing on the family problems in the development of chronic mental illness typically yields nothing but alienation and defensiveness for the family (Falloon, 1986).

Family Advocacy Movement

As a result of the pervasive negative attitude encountered, the family support and advocacy movement took root in the early 1970s (Lamb and Oliphant, 1978). Families grew tired and angry as they found themselves paying for professional services that yielded poor results and, at the same time, added to the family burden (Hatfield, 1984a).

The National Schizophrenia Fellowship was formed in England in 1972, followed by the establishment in 1973 of its counterpart in the United States, Parents of Adult Schizophrenics (Lamb, 1982). Approximately 100 small independent support groups combined to form the National Alliance for the Mentally Ill (NAMI) in 1979, growing to over 300 affiliates in four short years (Torrey, 1983). These groups were initially formed with the primary purpose of exchanging practical management tips, identifying realistic goals for the ill family member, and re-establishing social networks for families (Lamb and Oliphant, 1978). Since that time, the scope has broadened beyond the mutual support and education function to address

housing issues, commitment procedures, financial resources for the patients, and advocacy in legislation (Torrey, 1983).

"The emergence of consumer self-help groups may be the most influential development in mental health over the coming decade" (Hatfield, 1984b, p. 77). Having established a more unified base of support, families became active in making the mental health community aware of their dissatisfaction with current treatment protocols. Gartner and Reisman (1977) commented,

Implicit in the self-help thrust is a profound critique of professionals in traditional models, whether in psychotherapy, education, or other services seen as outmoded for modern needs, and the traditional relationships between professionals and consumers is not only inconsistent . . . but also seems to be correlated with inefficient and ineffective service (p. 12).

Families call for the delivery of proven and efficient services by competent therapists in a respectful fashion.

Parents remain consistent in their specific requests from mental health professionals. They look for a better understanding of the illness and its symptoms, appropriate expectations for their ill family members, and management techniques to deal with the bizarre behavior typically associated with chronic mental disorders (Hatfield, 1979). In addition, the respondents sought financial assistance, respite services, understanding from relatives and friends

(as well as professionals), and support for themselves (Hatfield, 1978).

A major request voiced by families calls for a clear presentation of the available treatment options along with information regarding their efficacy (Platman, 1983). Families need information about medication and ways to ensure compliance with the medication regimen (Herz, 1984; Spaniol, Zipple, and Fitzgerald, 1984). Families can use assistance in learning to handle crises, including respite services and communication skills (Hatfield, 1979; Bernheim and Lehman, 1985). "It is clearly necessary for the psychiatric team to spend a lot more time on informing and educating the relative about the nature of the patient's illness than is customary at present" (Leff, 1983, p. 161). Platman (1983) found families expressing concern about the genetic implications of the illness for future generations within the family. Finally, families would benefit from learning strategies for managing their own interpersonal stress (Lamb, 1982).

Development of Psycho-Educational Programs

The development of family psycho-educational programs can be attributed to the combined effect of the expressed emotion research, the established role of genetics, and the expressed needs of families (Ryglewicz, 1984).

Cynthia Bisbee (1983), co-author of the psycho-educational model utilized in this study, served as a strong advocate for the educational process involving both patient and the family. Bisbee (1983) indicates that while the idea of patient and family education regarding medical illnesses has existed for many years, only recently has this treatment strategy been applied to chronic mental illness.

Many advantages have been suggested in the model of educating the family as part of the treatment process. "Family interactions are an essential component of treatment and support, both for the family and the patient" (Pepper and Ryglewicz, 1984, p. 4). Once families receive education, they can become a more integral part of treatment (Bernheim, Lewine, and Beale, 1982). Hatfield (undated) assumes that with additional information, families can become more effective as the primary caregivers. "The family education approaches are designed to give families information they need to cope with the illness at home, especially regarding environmental management to decrease stress" (Bisbee, 1983, p. 210). Once families learn to decrease stress both for themselves and the chronically ill family member, the emotionally charged atmosphere can be positively affected. "In most families this kind of information raises morale, relieves guilt, enhances cooperation, and elicits true sympathy for the patient's predicament"

(McFarlane, Beels, and Rosenhack, 1983, p. 243). An educational model assuming a lack of knowledge on the family's part rather than an inherent "sickness" in themselves enables families to respond in a more positive manner since they feel respected, helping to reduce the stigma and blame (Spaniol et al., 1984). This tenant also serves as one of the important principles in Adlerian psychology (Christensen and Marchant, 1983).

Most family psycho-educational programs utilize a group modality (Anderson, Hogarty, and Reiss, 1980; Goldstein et al., 1978; Bisbee and Mullaly, 1983). One advantage of group family education is longer retention of the information presented in the psycho-educational workshop. McGill, Falloon, Boyd, and Wood-Siverio (1983) found that families (and patients) learned and retained more information about schizophrenic disorders via a group format when compared with a sample instructed through an individual orientation. The authors stated, "A straightforward way to improve the quality of community management of schizophrenia is to educate the patients and their families about the nature, course, and treatment of the illness" (p. 934) through the group modality.

Additional benefits in educating families about chronic mental illness include increased medication compliance for the patient and a better understanding of the

ill family member. Falloon (1986) found that family education produced improved patient compliance with medication and increased the family's ability to monitor the patient's stress levels. This facilitated the recognition of early warning signs, indicating symptom exacerbation. Comstock (1978) strongly endorses this family education and involvement in the medication regimen, finding medication compliance significantly increased when the family participates in treatment. Falloon (1986) also noted a reduction of critical attitudes toward the ill member as the family's understanding of the illness increased. Goldstein and Doane (1982) concur, contending that the heightened understanding of the illness resulting from education allows the family to develop an increased appreciation for the ill member's inner experience. This can reduce the family's level of resentment and guilt.

Although specific psycho-educational programs vary in length, scope, and degree of patient involvement, they share a general format (Goldstein and Doane, 1982; McFarlane and Beels, 1982). "The education and training offered by such programs focuses on information regarding the mental disorder and on ways of handling stressful situations, problem solving, and communicating in ways that diminish rather than aggravate stress for both the family and the patient" (Ryglewicz, 1984, pp. 84-85). These content areas

include current knowledge regarding etiology (with an emphasis on physiological and genetic components to avoid implicating families), stress reduction, medication, and information about the illness, especially symptoms, course, and outcome.

Although a number of family psycho-educational programs have been developed, a limited sample stand out due to their contribution to the treatment of chronic mental illness (Goldstein and Doane, 1982; Ryglewicz, 1985). These psycho-educational programs are reviewed along with selected other programs utilized in the treatment and education for families of the chronically mentally ill.

Anderson et al. (1980) developed a psycho-educational model based on the premise that certain chronically mentally ill patients have a "core psychological deficit." This results in problems with the regulation, selection, inhibition, or recognition of stimuli. In addition, the model contends that a segment of persons with schizophrenic disorders experiences problems in the attentional process which interferes with the recall, use, storage, or integration of information. This model incorporates the genetic theory of schizophrenia with the biochemical theory, contending that the attentional/stimuli difficulties are attributed to disruptions in neurotransmitters and/or structural problems in the brain.

This psycho-educational program attempts to decrease the patient's vulnerability to stimulation via medication and a reduction in the levels of stimulation provided by the family. All patients are treated with injectable fluphenazine decanoate (prolixin) to ensure medication compliance. The psycho-educational treatment consists of clinically based family sessions every two weeks. In the first of three phases, the treatment team establishes a positive relationship and connects with the family. Phase 2 is called the Survival Skills workshop. Families receive education about the illness, management techniques, realistic expectations, limit setting, and developing support networks for themselves. The final phase of the program addresses reentry of the patient back into the home, along with the application of information and skills learned in the second phase.

The evaluation of this treatment model demonstrates a significant rate of success. In this study, 26 of 28 patients survived in the community without hospitalization for an average of 12.5 months, a relapse rate of 7%. Ten of 29 patients whose families were not involved in the education/medication program experienced a relapse within this 12-month period, a rate of 34% (Anderson et al., 1980).

The Falloon project (Falloon, Boyd, McGill, Strong, and Moss, 1981) focuses on family communication and

problem-solving behaviors. Therapists administer this individual family psycho-educational program in the family's home with the patient receiving treatment in the clinic without the family present. Treatments occur weekly for the first three months following patient stabilization (4-6 weeks after hospital discharge), then once every two weeks for the following six months, and finally once a month. Treatment and education deal with communication skills, problem solving, and crisis management.

The findings of this research have been encouraging. At a nine-month follow-up, only 7% (one of 14) of patients whose family participated in the treatment program showed any significant increase in schizophrenic symptomology, while 57% (eight of 14) of the patients in the individual treatment program without family involvement exhibited significant clinical symptoms of a schizophrenic disorder. Patients whose families participated in education and treatment exhibited better compliance with the medication regimen when compared with the individual treatment group. When hospitalization was necessary, the individually treated group averaged a 7-day hospital stay while the family psycho-education group averaged less than one day in the hospital.

Subsequent studies (Falloon, 1985; Falloon and Liberman, 1983) utilizing the same basic treatment model demonstrate a similar rate of success. In a 1985 study, 36

patients diagnosed with a schizophrenic disorder were randomly assigned to one of two treatments, behavioral family therapy or individual treatment groups. The results showed that the behavioral family therapy group experienced a greater reduction in "the clinical, social, and family morbidity of schizophrenia after nine months" (Falloon, 1986, p. 179). Falloon and Liberman (1983) noted a relapse rate of 6% in a sample of 18 patients involved in the family intervention group while 44% ($N = 8/18$) of the individual therapy group relapsed within the same nine-month period.

Goldstein, Rodnick, Evans, May and Steinberg (1978) provided a psycho-educational group which combined the use of medication with family intervention focusing on stress identification and management. They studied the effectiveness of the psycho-educational group when combined with different levels of antipsychotic medication. Utilizing a 2×2 factor design, two options for both medication and family intervention were crossmatched. The family intervention was a crisis oriented treatment focusing on the recognition of a psychotic episode, identification of stressors associated with the episode, identification of future stressors, and planning to prevent future episodes in connection with these stressors. Medication levels were indicated as high and low. One hundred and four young acute schizophrenic patients were randomly assigned to one of four

aftercare treatment conditions: levels of medication crossed with participation or no involvement in family intervention.

The results indicated that the combination of high medication dosage combined with family intervention yielded substantially reduced relapse rates (0%) at six-week and six-month followups when compared with low medication dosage and no family involvement (24% at six weeks, 48% at six months). The two remaining groups yielded results falling between the outcomes found in the first two treatment groups. The high-dose medication combined with family intervention was proven effective in reducing the patient's symptoms. The unique aspect of this study is the use of a true experimental design with random assignment of subjects to treatment. Although we might speculate that the family would experience relief and thus decreased burden in conjunction with the patient's symptom reduction, the family variables were not reported in this study.

Another study utilizing this short-term crisis intervention model (Goldstein and Kopeikin, 1981) also documented the efficacy of the treatment. In their sample of patients experiencing their first or second psychiatric hospitalization, 0% of group in the family treatment cell (N = 24) relapsed at six months, while 17% of the individual therapy cell (N = 24) had relapsed.

The family psycho-education programs cited above have demonstrated success in reducing relapse rates and symptoms for the mentally ill family member. However, little or no information is available regarding the impact of these programs on the other family members participating in the program. The available research studies addressing specific changes in other family members (excluding the chronically mentally ill family member) as a result of participation in psycho-educational programs have not followed rigorous research designs. Most studies assess outcome via participant self-report or the level of knowledge about the chronic illness acquired and retained.

One of the earliest psycho-educational groups was designed for families experiencing the recent psychiatric hospitalization of a family member (Zolik, des Lauriers, Graybill, and Hollon, 1962). It utilized an educational rather than a formal therapy format. The group's purpose was to help families understand the hospital experience as well as increase their knowledge about the chronic mental illness. In addition, Zolik et al. (1962) hoped the sharing of members' experience would produce mutual support within the group.

A total of 48 families participated in the group at various times, with individual member attendance ranging from one to nine groups. The subjective reports of the

group's effectiveness indicated a positive outcome. Many participants reported a significant personal benefit, finding relief in the mutual support conveyed in the group. Family members indicated that their increased understanding of the ill family member was quite beneficial. Participating family members reported an increased ability to further the understanding and decrease the demands of other family members who declined participation.

No specific assessment instruments were mentioned by Zolick. Information regarding the success of the group was based on the individual reports of group participants in an interview-type assessment. The problems in the evaluation of these results include a lack of objective measures, absence of a comparison group, limited comparability of subjects due to inconsistent attendance, and the self-selection of subjects. While the group did yield a positive outcome per participant self-report, we have difficulty attributing positive change to education, the passage of time, maturation of participants, or other factors. The research design makes the objective identification of change, along with its causal factors, impossible.

Thresholds, a Chicago-based treatment facility for the chronically mentally ill, provides a psycho-educational group for the parents of their residents (Dincin, Sellack, and Streiker, 1978). This program assumes that patients

indeed function better when living independently of their family of origin because of the family's attitude toward the ill member. The family's attitude typically has direct impact on the illness, rehospitalization, treatment, and post-hospitalization adjustment (Dincin et al., 1978). Their psycho-educational group averaged 12 sessions, with some latitude depending on the group's needs. This model openly supports the belief that the family contributes to the maintenance of the illness. The authors also emphasize the profoundly detrimental effects of schizophrenia on the family and that parents have a right to their own lives.

Dincin et al. (1978) report the effect of participation in this group on 24 families, mainly Anglo, middle class persons with some college education. Sixty-one percent of the subjects reported at least two of the following since the start of the group: decreased guilt, reduced friction within the family, more realistic expectations for the ill family member, increased enjoyment of the marital partner, and a sense of togetherness. No control was utilized in this study to rule out history, maturation, or other alternative explanations for the change. Results would not be widely generalizable due to the restricted demographics of the subject.

Other psycho-educational programs purposefully refrain from any family implication in the development of

chronic mental illness. Atwood (1983) utilized a family psycho-educational model which identified patients as ill, thus exonerating the family for any responsibility in the etiology or maintenance of the disorder. In this model, a schizophrenic disorder is conceptualized as an illness which families typically have little or no control over. This group legitimizes the family's role as significant other, validating the problem (as identified by the family), affirming the manageability of the illness, and enabling participants to share problems with others. The group met for eight weekly sessions of 1 and 1/2 hours each. Thirteen subjects participated in the evaluation of this model, with a core group consisting of 6-8 family members per week. The participants' subjective reports of change based on group participation include a reduction in feelings of guilt, an opportunity to do necessary grief work, and an increased social network. As is the case with many other studies in family psycho-education, no control group was used and results were based on subjective self reports.

Zelitch (1980) employed a family psycho-educational model similar in design to that used in this research study. The workshop had an educational focus, using a lecture format which included eight weekly meetings of 1 and 1/2 hours. The goals of the workshop included education about various aspects of the illness, involvement of families in

treatment, provision of mutual support and self-help, and exploration and identification of community resources. The content of the program included the usual areas of focus, along with conveying an understanding of terminology and ways to deal with the stigma and guilt often experienced. Feedback from group participants included an endorsement of the time-limited format, the recommendation of separate groups for spouse and siblings of chronically mentally ill persons, and the timing of the group, suggesting that families participate when their relative is first diagnosed and/or hospitalized "before hostilities, tensions, and fears had a chance to escalate" (p. 51).

McLean, Greer, Scott, and Beck (1982) reported the results of two and one-half years of group meetings for parents with a chronically mentally ill offspring. They provided education to over 50 families during the course of 30 months. The initial group spanned 12 weeks and later groups were reduced to a 10-week series. The participants reported a resumption of couple activities, increased esteem within the family. Results of this education were presented through selected case reports. McLean et al. (1982) state, "It has been observed that family pain can be reduced through education, speakers, and written materials. Parents can learn to feel less responsible for the illness" (p. 568). No control group was utilized in this study, and

success was based on the staff's subjective observations of changes within the family across time.

Not all studies support the finding that families of the chronically mentally ill increase and retain their knowledge of the illness after participation in a psycho-educational workshop. Shapiro, Possidente, Plum, and Lehman (1983) provided education for 1 and 1/2 hours in each of eight weekly sessions. The group was comprised of 10 members from six families. This small group was the result of extensive efforts to recruit a treatment group from a pool of 150 families, finally arriving at the relatively small group. Thus, the selection issue is a probable confounding issue in any results obtained. Education included the content areas common to all programs previously presented.

The group's effectiveness in increasing knowledge was measured by an information questionnaire. No significant changes occurred in the family members' knowledge about the chronic mental illness at the completion of the group as measured by the questionnaire. The authors did not present any information to identify the participants' level of knowledge prior to treatment. No changes between the pre- and post tests were found in the group members' attitudes towards the concepts of mental patient, mental hospital, and

psychiatrist as measured by a form of the Semantic Differential. Participants did rate the group as very satisfactory, assigning it a mean score of 5.1 on a range of 1-6 (1 = very dissatisfying, 6 = very satisfying). At an eight-week follow-up, five family members reported an improved relationship with their ill relative, five family members reported no change in the relationship, and no one reported any deterioration in the relationship. This study highlights the problem of relying on totally subjective reports as criteria for success/failures of a family psycho-educational group. A favorable impression may not necessarily translate into any measurable change in the family's level of knowledge or attitudes about the illness.

Bisbee (1983) maintains optimism regarding the effectiveness of psycho-educational groups, citing the success of the Psychological Learning Center (Osmond, Mullaly, and Bisbee, 1978) in serving and receiving approval from over 3,000 patients and their families. While the subjective testimony of patients and families is encouraging, the authors do not report specific areas of change or success based on a systematic and objective research design.

Conclusion

As indicated in this review of the literature for family psycho-educational programs, the family's involvement

in the treatment of their chronically mentally ill member through a non-blaming model of family education has only recently become a reality. Relatively few studies utilize adequate research designs permitting the determination of cause-and-effect relationships to demonstrate the efficacy of the psycho-educational program in bringing about positive changes for family members other than the patient. The majority of research addressing this component of the treatment process relies primarily on subjective self-report from participants using an interview format. A very small percentage of these studies include a control group in the research design with which to make comparisons. As a result, we do not really know if subjects experience a positive effect from the psycho-educational treatment itself, or the effects of history, maturation, or other variables (e.g., belonging to a group, being out with their spouse or other family members an evening each week, etc.) to explain any changes.

During the past century, families have witnessed a substantial change in the view of professionals related to the family's supposed role in the etiology and maintenance of chronic mental illness. The genetic and biochemical branches of research have significantly reduced the implication for the family's role in the etiology of these disorders. Families continue to be implicated in the

maintenance and course of the illness, as demonstrated by the Expressed Emotion and Communication Deviance research. With continued research and provision of services to both family and patient, there remains hope for families and their loved ones afflicted with these devastating illnesses.

CHAPTER 3

METHOD

The specific procedures described in the method section of this study include subjects, the psycho-educational group treatment, treatment objectives, method of group presentation, and group leadership. In addition, the dependent variables, research instruments, assessment schedule, research design, data analysis, and limitations of the study are discussed.

Subjects

Family members of the chronically mentally ill often seek services for themselves when they experience stress and difficulty in dealing with their chronically mentally ill relative. The family members for this study sought treatment at a large mental health clinic in the southwest. These family members were often referred to the Family Education and Support Project (FESP), and the psycho-educational group in particular, as a source of assistance. The psycho-educational group also received participants via referrals made through a network of social services agencies in the community. Advertising through local media help to reach the families of the chronically mentally ill in the

community who are not currently receiving services for themselves through one of the referring agencies. Families need not have their mentally ill relative receiving services at the mental health clinic, La Frontera Center, in order to participate in the FESP programs.

Subjects in the treatment group were recruited from the participants in the psycho-educational group. The volunteers were married, or had a similar dyadic relationship and belonged to a family with a chronically mentally ill family member. Previous groups had been comprised of parents, siblings, and children of the mentally ill, along with interested community members such as friends, neighbors, and other mental health professionals. Parents of the chronically mentally ill constituted the largest subgroup of the psycho-educational group participants. They were the family dyad studied in this research. Any subjects participating in other counseling modalities were not included in the study.

Participants in previous psycho-educational groups came from a variety of income levels, ages, ethnic groups, education levels, and religious backgrounds. The majority of program participants had been middle to upper middle class caucasians with a high school or higher education and in the 45-60 year old age bracket.

Demographic information was gathered at the pretest assessment point as part of the data collection procedures.

The data included sex, age, number in the household, educational level, religious preference, and ethnic identification. In addition, participants were asked for their current marital status, number of years married, any previous divorces or separations, employment status, approximate income, relationship with the chronically ill person, gender, birth position and age of the chronically mentally ill person, and the number of years that the family member had been diagnosed with a mental illness.

The identities of the subjects in this study were not reported to the primary group leader.

A comparison group was used in this study. The comparison group was recruited from families who have a chronically mentally ill member enrolled in the mental health center's treatment program. Staff persons identified families in which the parental relationship was intact, the mentally ill person lived with or had close contact with the parents, there were no previous participation in the psycho-educational groups, and neither parent had a known mental illness.

These comparison families were contacted by the researcher and asked to participate in the study. All comparison group subjects were offered the opportunity to enroll in the next nine-week psycho-educational group to begin no later than September 1986.

Approximately 10 couples were included in both the treatment group and comparison group. According to Jacob (1975), experimental and comparison groups should be matched on age and sex of the patient, birth order position, socioeconomic status, family size, parents age, and ethnicity. These guidelines were followed in matching the treatment and comparison groups in this study. In addition, the mentally ill relative was involved in some sort of treatment at a social service agency in the local community.

Due to the nature of the group and the recruitment of comparison subjects, random selection or assignment to treatment was not possible. Psycho-educational group subjects were self selected. They were only included in the analysis if they met the criteria for this study. The confidentiality of subjects and their responses were considered essential. Prior to data collection, subjects were assigned a code number. All assessment scales were coded with the subject's number prior to distribution. Informed consent statements were signed by all participants, but kept in a separate file with the corresponding code number. All assessment scales were kept in numbered files without any indication of the subject's name to maintain anonymity and confidentiality.

Description of the Treatment

The psycho-educational program utilized in this study was based on a model created by Bisbee and Mullaly (1983). The model was "designed to help families of schizophrenics by teaching them about the illness and how they can better learn to cope with it" (Bisbee and Mullaly, 1983, p. 3). The authors contend that chronic illness disrupts the lives of both patients and their families. They state, "Learning as much as possible about the illness will help the family in managing and in living with it" (p. 3).

This nine session psycho-educational group met two hours each week, thus totaling 18 hours of education. The Bisbee and Mullaly model (1983) was modified slightly by the coordinator of the Family Education and Support Project to best suit the needs of families seeking services at La Frontera Center. Material from the original nine session program had been condensed into six sessions in the model utilized in this study. The additional three sessions addressed the issues of substance abuse with the chronically mentally ill, involuntary commitment procedures, and a session on the chronic affective disorders (bipolar and major depression).

Psycho-Educational Group Content
and Objectives

The psycho-educational group addressed a variety of content areas pertinent to chronic mental illness. These areas are identified along with the corresponding general objectives for that session. Specific objectives are identified in Appendix A.

Week 1: Introduction/Myths and Muddles

The participants were oriented to the psycho-educational group. The group leaders presented an overview of the nine sessions and began establishing a relaxed yet academic atmosphere. The myths regarding mental illness were identified and discussed. The Facts and Findings Inventory (Bisbee & Mullaly, 1983) helped to elicit common experiences regarding the chronic illness.

Week 2: Schizophrenia: An Illness
of Perception and Mood

Schizophrenia is a serious illness which results in chemical changes in the body, affecting the perception and mood of the CMI. This session identified those changes and how they affect the patient.

Week 3: Schizophrenia: An Illness
of Thought and Action

Changes in perception and mood affect the CMI's thoughts and behavior. The links between perception, moods,

cognitions, and behavior were discussed to help families better understand the experience of the schizophrenic process.

Week 4: Bipolar Affective Disorder and Depression

Biochemical changes occurring in the body can cause unexpected changes in mood and behavior. Specific treatments for these affective disorders were discussed. The similarities and differences between these disorders and schizophrenia were reviewed.

Week 5: Substance Abuse and Mental Illness

The use and/or abuse of substances by the CMI compounds the problems associated with the illness. Indicators of substance abuse, reasons for the abuse, impact of the substance on the mental illness, and treatment alternatives for this dual diagnosis were addressed.

Week 6: Medication

Medication is an essential aspect of the treatment for chronic mental illness. This session taught families the types of medications, names, main and side effects, dosage, and suggestions for dealing with non-compliance.

Week 7: Treatment and Management

Many treatments have been found useful in the management of schizophrenia and affective disorders. These treatments were identified along with realistic expectations for each treatment utilized.

Week 8: The Role of the Family

Families have rights and responsibilities in the treatment process. They can best participate in the treatment when they understand their roles and the role of the ill person. The importance of giving and receiving support was discussed along with ways to secure this.

Week 9: The Involuntary Commitment Process/Review

At times it becomes necessary to have a family member receive treatment, even if it is against their wishes. This session addressed the decision to petition for involuntary treatment along with the process and resources available. A review of the entire nine-week program occurred along with a discussion of the continuum of services available in the community for the chronically mentally ill person and their family.

Method of Presentation

The material presented in the psycho-educational group was done via a modified academic model. The specific

content areas were structured and presented in a didactic fashion. This allowed all the material to be covered without excessive "wandering" from the weekly task. While focused information exchange and problem solving served as the vital components, a degree of ventilation was permitted. Handouts were distributed regularly to supplement the presentation. They provided additional information regarding medication, diagnosis criteria, community resources, behavior management hints, and a reading list for families.

Group Leadership

The psycho-educational group was facilitated by two leaders from the agency staff. The principal group leader was the supervisor of the Follow-up Team and coordinator of the Family Education and Support Program. She has earned an MSW degree and brought years of experience in working with the chronically mentally ill, their families, and in facilitating numerous psycho-educational groups. This group leader has been recognized throughout the state for her program development skills, frequently making presentations addressing the initiation of family programs for this population. In addition, this leader had developed new and innovative programs for the chronically mentally ill and their families.

The second facilitator was a doctoral student in Counseling and Guidance and a psychology intern at La

Frontera Center. He learned the psycho-educational program from the principal leader and had served in the capacity of co-facilitator in the two previous psycho-educational series. On both occasions these two therapists served as co-facilitators. The second facilitator served as the evaluator in this study, collecting the data, conducting the interviews, and compiling the results. The role of this facilitator in the group was to be principle presenter in the classes on Substance Abuse with the mentally ill and the Affective Disorders. In other class sessions this second facilitator served in a less active role, providing supplemental information and examples.

The group leaders presented the material, facilitated discussions, helped members to problem solve, and served as sources of information about additional community resources.

Setting

Each psycho-educational group session was conducted in the conference center located on the grounds of the mental health clinic. This setting provided a comfortable atmosphere for an educational and interpersonal exchange.

Dependent Variables

The four dependent variables examined in this study include the quality of the marital relationship, family

environment, the parent's psychological symptoms, and knowledge about the etiology, treatment and phenomena of chronic mental illness. One research instrument was utilized to assess each dependent variable.

The Dyadic Adjustment Scale (Spanier, 1976) assessed the marital relationship. The scale contains four subscales for examining factors of marital or dyadic relationships: Dyadic Consensus, Dyadic Satisfaction, Dyadic Cohesion, and Affectional Expression.

The Family Environment Scale (Moos, 1974) assessed the family's social climate. While this scale contains 10 subscales, eight of the scales were used for the purposes of this study. Those included the Cohesion, Independence, Control, Conflict, Expressiveness, Organization, Active-Recreational Orientation, and Moral-Religious subscales. The remaining two scales were excluded from use in this study because they had not been found to discriminate between treatment and control groups in previous research with similar populations. The subscales excluded from use in this study included Achievement-Oriented and Intellectual-Cultural Orientation.

The Symptom Checklist-90-Revised (Derogatis, Lipman and Covi, 1973) assessed the individual's psychological symptoms. The scale is comprised of 10 subscales. The five subscales used in this study include the Depression,

Anxiety, Hostility, Somatization, and Interpersonal Sensitivity subscales. Five subscales were deleted for the purpose of this study. They included the Psychoticism, Phobic Anxiety, Obsessive-Compulsive attributes, Paranoid Ideation, and Additional Items subscales. The items comprising those subscales were judged to potentially engender defensiveness on the part of the families who have too often been judged as "defective" because of the presence of a chronically mentally ill person in the family. It was not the purpose of this research to further offend families or put them on the defensive.

The Mental Illness Questionnaire was a 20-item true-false instrument assessing the extent of knowledge about the etiology, treatment, and phenomena of chronic mental illness. Material for the items was chosen by the author based on the Schizophrenia Questionnaire (Hill and Balk, 1985) and updated to include items relevant to the current psycho-educational group.

Research Instruments

The standardized research instruments utilized in this study include the Dyadic Adjustment Scale (Spanier, 1976), the Family Environment Scale (Moos, 1974), and the Symptom Checklist-90-Revised (Derogatis, Lipman and Covi, 1973).

The Dyadic Adjustment Scale (DAS) was designed to assess the perceived quality of marital and similar dyadic relationships (Spanier and Thompson, 1982). It was based on the Locke-Wallace Marital Adjustment Scale (Locke and Wallace, 1959). The language of the former instrument had been revised to cover non-marital relationships. This self administered 32-item paper and pencil measure elicits the individual's perceptions about the quality of their marital (or dyadic) relationship. The DAS is a multidimensional assessment.

The DAS was normed on a sample of 218 married and 94 divorced persons in the eastern United States. The DAS met the criteria for three different validity measures. Three expert judges established the content validity of the scale. Criterion-related validity was demonstrated by showing that sample means and total score means for married and divorced couples differed significantly to the $p < .001$ level. The DAS was correlated with the Locke-Wallace Marital Adjustment Scale, the previously most widely used scale for determining marital satisfaction (Spanier, 1976). This test on test validity, or construct validity, was demonstrated when the two measures were correlated at .86 for married and .88 for divorced respondents. An additional construct validity was established through the use of factor analysis on the final 32-item scale. The analysis identified the four interrela-

ted components which were judged as significant in earlier studies of marital relationship assessment (Spanier & Cole, 1974).

The DAS also met reliability criteria. Reliability was established for each component scale as well as the whole scale. Using Cronbach's Coefficient Alpha (1951), the internal consistency of the scales ranged from .73 to .93 with a total scale reliability of .96.

The DAS was selected for use in this study because of its capacity to assess the multidimensional qualities of dyadic relationships. While relationship adjustment is a process that occurs across time, that change can be studied by examining the status of the relationship dimensions at distinct points on that continuum. To date, over 30 studies have utilized the DAS (Spanier and Thompson, 1982).

The Family Environment Scale (FES) assessed the family member's perception of their family's social environment. This self administered 90-item true-false assessment was divided into 10 subscales addressing three main dimensions: The Relationship Dimension, Personal Growth Dimension, and the System Maintenance Dimension. The FES focused on the measurement and description of the interpersonal relationships among family members, emphasized direction of personal growth, and family organizational structure.

Norms for the FES were based on 1,123 normal and 500 distressed families. The normal families were selected from all areas of the United States and included single, two parent, and multigeneration families from a variety of ethnic backgrounds. The distressed sample included families of alcohol abusers, general psychiatric patients, and those with a child in a crisis situation.

The FES possesses good face validity. No other measures of validity have been reported by the author. Test-retest reliability falls in the acceptable range with individual scales ranging from .68-.88. Profiles have been shown to be consistent for up to one year (Moos, 1981). Despite the somewhat limited validity and reliability data available, a review by Busch-Rossnagel in the Ninth Measurements Yearbook (1985) stated, "the internal psychometric properties of the FES make it one of the best measures available for assessing families" (p. 574).

The Symptom Checklist-90-Revised (SCL-90-R) is a 90-item self administered paper and pencil measure. Two of the four appropriate usages of the SCL-90-R include the detection of psychological symptoms in apparently normal people and the evaluation of changes in both specific and general symptoms (Derogatis, Rickels & Rock, 1976). The instrument directions instruct the person to report the degree to which they experience the identified symptoms

during a specified time period. The SCL-90-R has been utilized in a substantial number of studies, including the assessment of the effects of psychological stress associated with events like death, chronic tension headaches, cancer, rape, and disaster (Mitchel, 1985).

The preliminary norms for the SCL-90-R were based on a sample of over 1,000 heterogeneous psychiatric outpatients. Since that original norming group, norms have also been developed for inpatient, outpatient, and nonpatient males and females.

A high level of concurrent validity was established when the SCL-90-R was administered along with the MMPI and the results compared for matched scales (Derogatis, Rickles & Rock, 1976). The SCL-90-R also possessed good face validity. The scale has proven itself to be reliable. The scales show an internal consistency ranging from .77-.90 using the Alpha Coefficient (Cronbach, 1951) and the test-retest correlation coefficients range from .78-.90 (Payne, 1985).

Payne, in his evaluation of the SCL-90-R in the Ninth Mental Measurement Yearbook (1985), states

The SCL-90-R is an interesting and reliable self-administered psychiatric symptom checklist which can be very useful in research studies. It may be particularly useful in evaluating the changes in symptoms produced in a group by some treatment regime (p. 1329).

The four research instruments were condensed onto five pages (see Appendices B, C, D and E) once the questions from the deleted scales had been removed. A pilot study was conducted to assess the condensed instruments. A sample of three couples was selected from one of the weekly support groups sponsored by the FESP and asked to complete the assessments, providing feedback about the clarity, appropriateness, and format of the instruments. Minor changes were made in the assessment materials to reflect the pilot study comments.

In addition to the four instruments identified in this section, a follow-up interview was conducted with each participant in both the treatment and control group. A structured format was used in this interview (see Appendix G). Participants were asked to identify the perceived impact of the chronic mental illness on their marital relationship, family environment, and psychological symptoms. The Life Experience Survey (Sarason, Johnson & Siegel, 1978) was used both at pretest and at the follow-up to identify any other life events that may have accounted for significant changes in the dependent variables prior to and during the treatment or follow-up period (see Appendix F). This instrument identifies positive and negative life experiences along with the perceived impact upon the person.

Assessment Schedule

All participants in this study completed the DAS, FES, and SCL-90-R on four separate occasions (see Table 1). The first set of measures were completed at the pretest point of 1-2 days before the start of the psycho-educational group. The second assessment took place at mid-treatment after the fourth session. Posttest measures were completed within two days after the end of the treatment. Follow-up assessment occurred at four weeks post treatment with the in-depth interview conducted at or slightly after the follow-up point. The Mental Illness Questionnaire was completed at the pre, post and follow-up points.

The questionnaires were hand delivered to all members of the treatment group at pre, mid, and post measurement points. At the follow-up some subjects received the assessment instrument directly while the remainder were sent through the mail. The majority of the control subjects received their packets of assessments directly from the researcher at pre, mid, post, and follow-up although a minority were unable to arrange for hand delivery. This small group received and returned their assessment instruments through pre-addressed stamped envelopes.

Research Design

The research design utilized in this study was a non-randomized comparison pretest-posttest design (Isaac and

Table 1. Assessment schedule.

	Treatment Group	Comparison Group
Pretest	DAS FES SCL-90-R Mental Illness Questionnaire Life Experience Survey	DAS FES SCL-90-R Mental Illness Questionnaire Life Experience Survey
Mid Treatment (at 4 weeks)	DAS FES SCL-90-R	DAS FES SCL-90-R
Posttest (end of 9 weeks)	DAS FES SCL-90-R Mental Illness Questionnaire	DAS FES SCL-90-R Mental Illness Questionnaire
Follow up (4 weeks post)	DAS FES SCL-90-R Mental Illness Questionnaire Structured Interview Life Experience Survey	DAS FES SCL-90-R Mental Illness Questionnaire Structured Interview Life Experience Survey

Michael, 1981) with a four-week follow-up. This quasi-experimental design differs from a true experimental design in that random assignment of subjects to groups does not occur. In this study, participants in the psycho-educational group were self-selected and participants in the comparison group were chosen to match the treatment group on selected variables. Kidder (1981) suggests that the quasi-experimental design is often the next best choice when random assignment is not possible. Cook and Campbell (1979) state that the design "is perhaps the most frequently used design in social science research" (p. 103).

Data Analysis

The statistical procedures used in this study were chosen to compare the mean scores of two correlated samples across time. The samples are considered to be correlated since they were matched on various demographic variables (Huck, Cormier, and Bounds, 1974). Subjects in both the treatment and comparison groups completed the same assessment instruments at the four measurement points: pretest, midpoint, posttest, and follow-up. A two-factor repeated measures analysis of variance (ANOVA) was employed to analyze the differences in the mean scores for these two groups. The first factor, psycho-educational group, had two levels (participation and no participation). The second

factor, time, had four levels (pre, mid, post, and follow-up).

The repeated measures analysis of variance appeared to be the most appropriate statistical tool to analyze this time series design. "The repeated-measurement design is the natural one to select when we are concerned with performance trends over time" (Myers, 1979, p. 162). According to Huck, Cormier, and Bounds (1974), the ANOVA is an appropriate statistical approach to use in analyzing correlated samples "in the two group study in which subjects are matched" (p. 53). When subjects are not randomly assigned to groups, the potential exists for non-equivalent groups. Cook and Campbell (1979) state that the ANOVA statistical technique can still be utilized in these cases as long as the pretest scores are first analyzed using the elementary ANOVA (t test) model.

The repeated measures analysis of variance permits the testing of three research questions: (1) is there a significant main effect of group participation; (2) is there any significance for the main effect of time; and (3) is there any significant interaction between group participation and time (Huck, Cormier, and Bounds, 1974). For all the above reasons, the repeated measures ANOVA appeared to be the most appropriate choice to analyze the data.

Limitations of the Study

The following were the recognized limitations of this study:

1. The couples participating in the psycho-educational group were volunteers, therefore possessing characteristics that may potentially differentiate them from the non-volunteers in the comparison group.
2. Random sampling was not feasible in the selection or assignment of subjects. This quasi-experimental design permits limited generalizability to the general population.
3. The researcher served as a co-facilitator in the treatment group. A replication study in which an independent therapist provides treatment would be necessary to eliminate this potentially confounding variable.
4. Due to the use of self-report instruments to measure change, the results were limited to the individual's perception of changes in their marital relationships, family environment, and psychological symptoms. The Mental Illness Questionnaire served as the only instrument which was not strictly a subjective self-report measure.

Summary

This study examined the effectiveness of a psycho-educational group on family members of the chronically mentally ill. The dependent variables in this study were the perceived family environment, perceived quality of the marital relationship, the parent's psychological symptoms, and knowledge of the etiology, treatment and phenomena of chronic mental illness. A quasi-experimental design was employed. Data were analyzed using a repeated measures analysis of variance (ANOVA) and t tests. The sample for this study was comprised of parents of CMI's who attended the psycho-educational group at a mental health clinic in the southwestern United States. The comparison group was selected from parents whose offspring were already enrolled in services at the agency and matched to the treatment group on selected variables. Four measures were administered at four separate intervals (pre, mid, post and follow-up) along with an in-depth follow-up interview. Participants completed a questionnaire identifying important life events occurring before and during the treatment and follow-up time period.

CHAPTER 4

RESULTS

Introduction

The purpose of this study was to examine the effect of participation in a family psycho-educational program on the following four variables for parents of the chronically mentally ill: the marital relationship, family environment, psychological symptomology, and knowledge of various aspects of the chronic mental illnesses. One general research hypothesis was generated to address each of the four variables. The results of the data analyses for each of the four research hypotheses are presented in this chapter. Each research hypothesis is analyzed sequentially, and descriptive statistics are presented to clarify the statistical tests.

A two-factor repeated measures analysis of variance (ANOVA) was employed to test all the hypotheses. The first factor was group participation (psycho-educational group or no group), and the second factor was time (pretest, midpoint, posttest, and follow-up). The dependent measures were the subscales of the Dyadic Adjustment Scale (DAS), the Family Environment Scale (FES), the Symptom Checklist

90-Revised (SCL 90-R), and a mental illness questionnaire. T tests were performed at the initial measurement point to insure that there were no significant statistical differences between the groups. Significant differences between the groups at pretest would compromise any significant differences found later in the study.

This chapter begins with a demographic description of the treatment and comparison groups. The statistical analysis for each of the four research hypotheses follows. Tables are included to further explain the findings.

Description of the Treatment and Comparison Groups

The participants in this study were 38 parents (19 couples) with chronically mentally ill offspring. These participants were divided into two groups, treatment and comparison. The treatment group consisted of 18 parents (9 couples) while the comparison group included 20 parents (10 couples). The demographic variables selected to describe the participants include age, number in household, years of education, religion, ethnicity, length of marriage, previous separations or divorces, employment status, annual salary, and the sex, age, birth position, and length of illness for the chronically ill family member. The demographic data for both groups is presented in Table 2.

Table 2. Demographic data.

	Treatment (N = 18)	Comparison (N = 20)
<u>Age</u>		
Range	39-66	43-65
Mean	50.8	56.6
Men	52.1	57.3
Women	49.4	55.9
<u>Number in Household</u>		
Range	2-5	2-6
Mean	3.0	3.4
<u>Years in Education</u>		
Range	12-16	3-17
Mean	14.4	13.8
Men	14.7	15.3
Women	13.8	12.2
<u>Religion</u>		
Protestant	6	9
Catholic	10	5
Other	1	4
None	1	2
<u>Ethnicity</u>		
Anglo	14	18
Mexican American	1	2
Asian	1	
Other	2	
<u>Length of Marriage</u>		
Range	19-39	17-38
Mean	27.6 yrs.	28.8 yrs.
Previous divorces	1	5
Separations	2	
Neither	15	15

Table 2--Continued

	Treatment (N = 18)	Comparison (N = 20)
<u>Employment Status</u>		
More than full-time	3	2
Full time	6	8
Part time	4	1
Not employed/retired	5	9
<u>Annual Income</u>		
\$30,000 plus	14	12
\$20,000-29,999		2
\$15,000-19,999	4	4
Below \$8,000		2
<u>Gender of Mentally Ill Family Member</u>		
Male	8	6
Female	10	14
<u>Age of Ill Family Member</u>		
Range	16-33	20-40
Mean	23.6	27.7
<u>Birth Position of Ill Family Member</u>		
Oldest	4	4
Middle	4	4
Youngest	8	6
Only	2	6
<u>Length of Illness</u>		
Range	1-18	1-13
Mean	7.3	6.5

The mean age for treatment group members was 50.8 years, with men averaging 52.1 and women 49.4 years. The comparison group participants averaged 56.6 years of age, with men and women averaging 57.3 and 55.9 years respectively. Treatment couples averaged 3.0 persons living in the household compared with 3.4 persons per household in the comparison group.

The treatment group members averaged 14.2 years of education, while the comparison group averaged 13.8 years of education. Men in the treatment group averaged 14.7 years of education versus 15.3 years for their male counterparts in the comparison group. Women in the treatment group averaged 13.8 years of education while the comparison group women had a mean years of education score of 12.2 years.

Most of the participants identified themselves as having religious affiliations. In the treatment group, there were 6 Protestants, 10 Catholics, and 1 in the nonspecified category. One treatment participant reported no religious affiliation. The comparison group included 9 Protestants, 5 Catholics, 4 in the nonspecified category, and 2 without religious affiliation.

The majority of participants in the study identified their ethnicity as Anglo. The treatment group contained 14 Anglo, 1 Mexican American, 1 Asian and 2 in the "other"

category. There were 18 Anglos and 2 Mexican Americans in the comparison group.

The treatment group marriages averaged 27.6 years in length while the mean for the comparison group was 28.8 years. Five members of the comparison group had been divorced previously; no one had been separated. In the treatment group, one participant had been divorced previously and two participants had experienced a separation.

A higher number of the treatment group subjects was working currently, with 3 reporting more than full-time employment, 6 working full-time, 4 part-time, and 5 either not working or retired. In the comparison group, 2 participants held more than one full-time job, 8 worked full-time, one worked part-time, and 9 were either not working or retired.

Fourteen subjects in the treatment group reported a family income in excess of \$30,000 per year. The other four stated that the family income fell in the \$15,000-19,999 range. The comparison group members identified their family income as follows: twelve in the \$30,000 plus range, two in the \$20,000-29,000 range, four in the \$15,000-19,999 range, and two at less than \$8,000 per year.

The treatment group reported that the gender of their chronically mentally ill offspring was male in 8 cases and female in the other 10. The comparison group identified

their ill family member as male in 6 cases and female in 14. The mean age for the ill family member was 23.6 years for the treatment group and 27.7 years for the comparison group. The reported length of the family member's illness was 7.3 years for the treatment group and 6.5 years for the comparison group.

The treatment group stated that the birth position of the ill family member was the oldest child in 4 cases, the middle child in 4 cases, the youngest in 8 cases, and an only child in two situations. For the comparison group, the ill member was the oldest in 4 cases, middle child in 4 cases, the youngest in 6 cases, and an only child in 6 cases.

Hypotheses

Hypothesis 1

The first hypothesis stated that couples participating in the family psycho-educational group would show a significant improvement in the perceived quality of their marital relationship (as measured by the DAS) when compared with couples who did not participate (comparison group). The DAS is comprised of four separate subscales along with a total scale score. The subscales include Dyadic Satisfaction, Dyadic Cohesion, Dyadic Consensus, and Affectional Expression. These four subscales, along with the total score, were analyzed to identify the change in the perceived

quality of the marital relationship during the course of the study.

Dyadic Consensus Subscale. The treatment and comparison groups were compared for their scores on the DAS Dyadic Consensus subscale at four points in time (pretest, midpoint, posttest, and follow-up). A t test performed at the pretest point indicated that the groups were comparable, $t(36) = .91$, $p > .370$. The overall mean scores of the treatment and comparison groups were not significantly different for the main effect of group participation, $F(1,36) = 1.84$, $p < .183$. The mean treatment group score for the Dyadic Consensus subscale was higher ($x = 48.71$) than the mean comparison group score ($x = 44.66$). Table 3 is the ANOVA summary table and Table 4 presents the descriptive statistics for this analysis.

The second main effect on Dyadic Consensus, time, was examined with an F test. This test indicated a significant difference in the combined group score over four points in time, $F(3,108) = 5.58$, $p < .001$. The overall means for all participants at pretest, midpoint, posttest and follow-up were 45.39, 47.37, 46.68, and 46.87, respectively. Refer to Table 4 for descriptive statistics. It appeared that on the average, the participants gained in Dyadic Consensus from pretest to midpoint and then declined slightly, maintaining that position at follow-up.

Table 3. ANOVA summary of treatment and comparison groups;
DAS, dyadic consensus subscale.

Source	SS	df	M	F	p
Group	620.29	1	620.29	1.84	.183
Error	12,111.26	363	336.42		
Time	82.60	3	27.53	5.58	.001*
G x T	62.47	3	20.82	4.22	.007*
Error	532.45	108	4.93		

* Significant at $p < .05$ level

Table 4. Descriptive statistics; DAS, dyadic consensus subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	46.83	4.09	48.89	4.57	49.72	4.78	49.39	5.44	48.71
Comparison	44.10	12.16	46.00	12.28	43.95	11.99	44.60	11.94	44.66
Total	45.39		47.37		46.68		46.87		46.58

The effect of the interaction of treatment and time on subjects' Dyadic Consensus subscale scores was significant, $F(3,108) = 4.22$, $p < .007$. The means of the treatment and comparison groups were examined to identify the source of the interaction (Table 4). Treatment and comparison group appeared to be similar from pretest to midpoint, but then they seemed to differ on the posttest and maintain that difference on the follow-up measure. While the mean score for the treatment group continued to increase from midpoint to posttest, the comparison group's mean score decreased during this time. From posttest to follow-up the mean score for the treatment group declined slightly while the comparison group's mean score increased slightly.

T tests were performed for the mean score at midpoint [$t(36) = .94$, $p < .353$], posttest [$t(36) = 1.91$, $p < .061$], and follow-up [$t(36) = 1.56$, $p < .127$] in an attempt to identify the source of the interaction. Although the t tests did not indicate a significant difference at any one point, the mean of the treatment group ($x = 49.72$) and that of the comparison group ($x = 43.95$) did appear to differ on visual inspection at the posttest point. Although the p value did not reach the .05 level, it was small enough to justify mention. The F test for interaction shows rather clearly that, overall, there is an interaction occurring although the t test does not specifically identify the source.

Dyadic Satisfaction Subscale. The comparison of the treatment and comparison group across time showed that the overall mean scores on the Dyadic Satisfaction subscale were not significantly different, $F(1,36) = .63$, $p < .432$. A t test performed at the initial assessment point indicated that the groups were not significantly different, $t(36) = -1.43$, $p < .162$. The comparison group scored slightly higher on the Dyadic Satisfaction subscale ($x = 36.84$) than the treatment group ($x = 35.93$). Thus, the first main effect of group participation yielded no significant difference in the treatment and comparison group participants' Dyadic Satisfaction subscale scores. Table 5 is the ANOVA summary table and Table 6 presents the descriptive statistics for this analysis.

There was no significant difference in the mean Dyadic Satisfaction scores for the main effect of time, $F(3,108) = 1.60$, $p < .194$. It appeared that the average group score increased for all participants from pre- to posttest, with a slight decline at follow-up. The interaction between group membership and time was not significant at the $p < .05$ level, $F(3,108) = 2.07$, $p < .108$.

Dyadic Cohesion Subscale. When the treatment and comparison groups were contrasted on the Dyadic Cohesion subscale across the four points in time, the overall mean scores for the main effect of group participation alone were

Table 5. ANOVA summary for treatment and comparison groups; DAS, dyadic satisfaction subscale.

Source	SS	df	M	F	p
Group	31.17	1	31.17	.63	.432
Error	1775.54	36	49.32		
Time	12.44	3	4.15	1.60	.194
G x T	16.15	3	5.38	2.07	.108
Error	280.35	108	2.60		

Table 6. Descriptive statistics; DAS, dyadic satisfaction subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	35.06	3.92	35.94	3.65	36.61	4.17	36.11	4.21	35.93
Comparison	36.80	3.62	37.25	3.42	36.70	3.84	36.60	3.39	36.84
Total	35.97		36.63		36.66		36.36		36.37

not significantly different, $F(1,36) = .18$, $p < .672$. The t test performed at pretest indicated that the groups were comparable at this point for the subscale, $t(36) = -.47$, $p < .641$. The treatment group scored higher for the mean Dyadic Cohesion subscale across time ($x = 15.65$) while the comparison group had a mean score of 15.10. Table 7 presents the ANOVA summary data and Table 8 presents the descriptive statistics for this analysis. There was not a significant difference in the mean Dyadic Cohesion subscale scores for the second main effect of time, $F(3,108) = 1.62$, $p < .188$.

The effect of the interaction of treatment and time on subjects' Dyadic Cohesion scores was significant, $F(3,108) = 7.00$, $p < .001$. The means of the treatment and comparison groups were examined to identify the source of the interaction (Table 8). Treatment and comparison groups appeared to be slightly but not significantly different at pretest. Both group mean scores increased at midpoint. The treatment group score continued to increase at both posttest and follow-up while the comparison group score progressively decreased, falling below the pretest level.

A series of t tests were performed on the Dyadic Cohesion subscale scores at the mid, post, and follow-up points to determine the source of the interaction. The t tests were not significant at any one point: midpoint

Table 7. ANOVA summary for treatment and comparison groups; DAS, dyadic cohesion subscale.

Source	SS	df	M	F	p
Group	11.58	1	11.58	.18	.672
Error	2,282.77	36	63.41		
Time	9.10	3	3.03	1.62	.188
G x T	39.20	3	13.07	7.00	.001*
Error	201.63	108	1.87		

*Significant at $p < .05$ level

Table 8. Descriptive statistics; DAS, dyadic cohesion subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	14.61	3.50	15.44	2.62	16.17	3.17	16.39	3.63	15.65
Comparison	15.30	5.25	15.60	4.76	14.95	4.77	14.55	4.45	15.10
Total	14.97		15.53		15.53		15.42		15.36

$t(36) = -.12, p < .903$, posttest $t(36) = .91, p < .366$, follow-up $t(36) = 1.38, p < .175$, although the mean of the treatment group ($x = 16.17$) and the comparison group ($x = 14.95$) did appear to differ on visual inspection at posttest. The F test for interaction shows clearly that overall there is an interaction occurring although the t test does not specifically identify the source.

Affectional Expression Subscale. The treatment and comparison groups were compared at the four points in time to identify any significant differences in the mean Affectional Expression subscale scores. A t test at the initial measurement point indicated that the two groups were not significantly different at the $p < .05$ level, $t(36) = -1.74, p < .09$. The overall mean scores of these two groups for the main effect of group participation were not significantly different, $F(1,36) = 1.34, p < .254$. Across time, the comparison group scored higher on the Affectional Expression subscale ($x = 9.24$) while the treatment group averaged 8.51. Table 9 presents the ANOVA summary information and Table 10 presents the descriptive statistics for this analysis. There was not a significant difference in the mean Affectional Expression subscale scores for the main effect of time, $F(3,108) = 2.16, p < .096$. It appeared that the treatment group gained in their score over time while the comparison group remained fairly consistent.

Table 9. ANOVA summary for treatment and comparison groups; DAS, affectional expression subscale.

Source	SS	df	M	F	p
Group	19.84	1	19.84	1.34	.254
Error	531.47	36	14.76		
Time	2.39	3	.80	2.16	.097
G x T	3.10	3	1.03	2.81	.043*
Error	39.74	108	.37		

* Significant at $p < .05$ level

Table 10. Descriptive statistics; DAS, affectional expression subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	8.22	1.83	8.33	2.24	8.61	2.12	8.89	2.03	8.51
Comparison	9.25	1.80	9.20	1.96	9.35	2.06	9.15	1.87	9.24
Total	8.76		8.79		9.00		9.03		8.89

The effect of the interaction of treatment and time on subjects' Affectional Expression subscale score was significant, $F(3,108) = 2.81$, $p < .043$. The means of the treatment and comparison groups were examined to identify the source of the interaction (Table 10). The comparison group started at a higher mean score which remained consistent throughout the study while the treatment group increased in their average group score at each measurement point.

T tests were performed on the midpoint scores [$t(36) = -1.27$, $p < .213$], posttest scores [$t(36) = -1.09$, $p < .283$], and follow-up scores [$t(36) = -.41$, $p < .682$] to determine if there was a significant difference between the group means at any one point in time. The t tests were not significantly different at the $p < .05$ level. The F test for interaction shows that, overall, there is an interaction occurring, although the t test does not specifically identify the source.

Dyadic Adjustment Scale Total Score. In addition to the four individual subscale scores, the DAS provides a total score for the overall level of relationship adjustment. The treatment and comparison groups were compared on these total scale scores at the four measurement points. A t test performed on the pretest scores indicated that the two groups were comparable, $t(36) = -.18$, $p < .859$. The

analysis of the main effect of group participation alone showed that the overall mean scores of the two groups were not significantly different, $F(1,36) = .47$, $p < .495$. The treatment group exhibited a higher mean DAS total scale score ($x = 108.82$) when compared with the average total scale score of the comparison group ($x = 105.86$). The ANOVA summary data is presented on Table 11 while the descriptive statistics for the DAS total scale are presented on Table 12.

There was a significant difference in the mean DAS total scale scores for the main effect of time. The main effect of time on the DAS total score was examined with an F test. This test indicated a significant difference in the combined group scores over four points in time, $F(3,108) = 5.81$, $p < .001$. The overall means for the combined participants at pretest, midpoint, posttest and follow-up were 105.18, 108.29, 107.87, and 107.71, respectively (Table 12). It appeared that the subjects gained in cohesion from pretest to midpoint and then declined slightly at the posttest and again at the follow-up. It appeared that the average group score for the treatment group gained progressively from pretest to posttest with a slight decline at follow-up while the comparison group initially gained from pretest to midpoint before decreasing in the subsequent two measurements.

Table 11. ANOVA summary for treatment and comparison groups; DAS, total score.

Source	SS	df	M	F	p
Group	331.33	1	331.33	.47	.495
Error	25,130.64	36	698.07		
Time	243.16	3	81.05	5.81	.001*
G x T	369.87	3	123.29	8.83	.001*
Error	1,507.84	108	13.96		

* Significant at $p < .05$ level

Table 12. Descriptive statistics; DAS, total score.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	104.78	10.07	108.56	10.30	111.11	11.73	110.83	12.65	108.82
Comparison	105.55	15.64	108.05	15.41	104.95	16.01	104.90	14.56	105.86
Total	105.18		108.29		107.87		107.71		107.26

The effect of the interaction between treatment and time on subjects' DAS total score was also significant, $F(3,108) = 8.83$, $p < .001$. The means of the treatment and comparison groups were examined to identify the source of the interaction (Table 11). Treatment and comparison group means appeared to be similar from pretest to midpoint. At posttest the comparison group declined slightly while the treatment group continued to increase in their mean DAS total scale score. The treatment group's mean score at follow-up declined slightly as did the comparison group.

Statistical tests were performed on the midpoint [$t(36) = .12$, $p < .907$], posttest [$t(36) = 1.34$, $p < .189$], and follow-up [$t(36) = 1.33$, $p < .191$] scores to determine the source of the interaction. The t tests were not significant, although the means of the treatment group and comparison group did appear to differ on visual inspection at the posttest and follow-up points. The F test for interaction shows rather clearly that overall there is an interaction occurring although the t test does not specifically identify the source.

Hypothesis 2

The second hypothesis stated that couples participating in the family psycho-educational group would show a significant improvement in the perceived quality of their family environment (as measured by the FES) when compared

with couples who did not participate in the group. The FES is an instrument comprised of 10 separate subscales. For the purposes of this study, eight of the subscales were utilized to assess the impact of the group on family environment. These subscales included Cohesion, Independence, Control, Conflict, Expressiveness, Organization, Active-Recreational Orientation, and Moral-Religious Orientation. The results of each subscale are presented.

Cohesion Subscale. The treatment and comparison groups were compared on the FES Cohesion subscale at the four points in time. A t test at the initial assessment point indicated that the two groups were comparable for this subscale, $t(36) = .81$, $p < .425$. The overall mean scores of the treatment and comparison groups were not significantly different for the main effect of group participation, $F(1,36) = .25$, $p < .623$. The comparison group had a lower mean score on the Cohesion subscale ($x = 6.84$) than the treatment group ($x = 7.04$). Table 13 presents the ANOVA summary data and Table 14 presents the descriptive statistics for this analysis.

The impact of the main effect of time on the Cohesion subscale was also examined with an F test. This test indicated a significant difference in the combined group means over the four measurement points, $F(3,108) = 3.19$, $p < .027$. The overall means for combined subjects at

Table 13. ANOVA summary for treatment and comparison groups; FES, cohesion subscale.

Source	SS	df	M	F	p
Group	1.58	1	1.58	.25	.623
Error	230.76	36	6.41		
Time	9.91	3	3.30	3.19	.027*
G x T	.99	3	.33	.32	.812
Error	111.88	108	1.04		

* Significant at $p < .05$ level

Table 14. Descriptive statistics; FES, cohesion subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	6.78	1.86	6.89	1.49	7.17	1.92	7.33	1.50	7.04
Comparison	6.35	1.39	6.80	1.40	7.15	1.53	7.05	1.19	6.84
Total	6.55		6.84		7.16		7.18		6.93

pretest, midpoint, posttest, and follow-up were 6.55, 6.84, 7.16 and 7.18 respectively (Table 14). It appeared that the subjects in the treatment group progressively gained in their mean cohesion score at each measurement point. The comparison group gained in their mean scores until the follow-up where they declined slightly.

The interaction between group membership and time was not significant, $F(3,108) = .32, p < .812$.

Independence Subscale. The two groups were compared on the Independence subscale of the FES at the four measurement points. The pretest assessment indicated that the two groups were not significantly different, $t(36) = -.91, p < .371$. The overall mean scores for the treatment and comparison group were not significantly different for the main effect of group participation, $F(1,36) = .18, p < .675$. The comparison group scored slightly higher on the Independence subscale ($x = 7.03$) than the treatment group ($x = 6.86$). The ANOVA summary data are presented on Table 15 and the descriptive statistics on Table 16 for this analysis.

There was no significant difference in the mean Independence scores for the main effect of time, $F(3,108) = .12, p < .949$. It appeared that the average score for all participants gained slightly over time. The interaction between group membership and time was not significant, $F(3,108) = 2.03, p < .113$.

Table 15. ANOVA summary for treatment and comparison groups; FES, independence subscale.

Source	SS	df	M	F	p
Group	1.02	1	1.02	.18	.675
Error	205.06	36	5.70		
Time	.24	3	.08	.12	.949
G x T	4.14	3	1.38	2.03	.113
Error	73.21	108	.68		

Table 16. Descriptive statistics; FES, independence subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	6.72	1.18	6.61	1.61	7.00	.97	7.11	.83	6.86
Comparison	7.10	1.37	7.20	1.15	6.90	1.74	6.90	1.83	7.03
Total	6.92		6.92		6.95		7.00		6.95

Control Subscale. The two groups were assessed at the pretest point with a t test to ensure that they were not significantly different, $t(36) = .16, p < .876$. The overall mean scores of the treatment and comparison groups were not significantly different for the main effect of group participation when compared across the four points in time, $F(1,36) = .10, p < .750$. The comparison group exhibited a slightly higher mean Control subscale score ($x = 4.64$) when compared with the treatment group ($x = 4.44$). Table 17 presents the ANOVA summary data and Table 18 outlines the descriptive statistics for this analysis.

There was no significant difference in the mean Control subscale scores for the main effect of time, $F(3,108) = .29, p < .830$. It appeared that the average group score changed little over time. The interaction between group membership and time was not significant, $F(3,108) = .81, p < .493$.

Conflict Subscale. The two groups were compared on the FES Conflict subscale at the four measurement points. The t test at the initial assessment indicated that the groups were not significantly different at the $p < .05$ level [$t(36) = 1.85, p < .073$]. The overall mean scores of the treatment and comparison groups were not significantly different for the main effect of group participation, $F(1,36) = 1.72, p < .198$. The treatment group presented an

Table 17. ANOVA summary for treatment and comparison groups; FES, control subscale.

Source	SS	df	M	F	p
Group	1.41	1	1.41	.10	.750
Error	491.02	36	13.64		
Time	.79	3	.26	.29	.830
G x T	2.15	3	.72	.81	.493
Error	96.23	108	.89		

Table 18. Descriptive statistics; FES, control subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	4.61	2.23	4.33	1.78	4.39	2.09	4.44	2.15	4.44
Comparison	4.50	2.12	4.85	2.03	4.45	1.79	4.75	1.94	4.64
Total	4.55		4.61		4.42		4.61		4.55

overall higher mean score ($x = 2.89$) when contrasted with the comparison group ($x = 2.29$). The analyses of this subscale are presented in Table 19 (ANOVA summary) and Table 20 (descriptive statistics).

For the main effect of time, there was no significant difference in the mean Conflict subscale scores, $F(3,108) = 2.20$, $p < .092$ although the difference does begin to approach significance. The interaction between group membership and time was not significant, $F(3,108) = 1.29$, $p < .283$.

Expressiveness Subscale. The two groups were compared at the pretest point and found to be comparable for this subscale, $t(36) = -1.08$, $p < .286$. The overall mean scores on the Expressiveness subscale for the treatment and comparison groups were not significantly different for the main effect of group participation, $F(1,36) = .02$, $p < .896$. The comparison and treatment groups had nearly identical overall mean scores, $x = 4.71$ and $x = 4.76$ respectively. Table 21 presents the ANOVA summary data and Table 22 presents the descriptive statistics for this analysis.

Over time, there was no significant difference in the mean Expressiveness subscale scores, $F(3,108) = .88$, $p < .454$. The interaction between group membership and time was not significantly different, $F(3,108) = 1.70$, $p < .171$.

Total 19. ANOVA summary for treatment and comparison groups; FES; conflict subscale.

Source	SS	df	M	F	p
Group	13.71	1	13.71	1.72	.198
Error	287.25	36	7.98		
Time	4.81	3	1.60	2.20	.092
G x T	2.81	3	.94	1.29	.283
Error	78.73	108	.73		

Table 20. Descriptive statistics; FES, conflict subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	3.33	1.91	2.78	1.31	2.72	1.93	2.72	1.49	2.89
Comparison	2.35	1.35	2.55	1.73	2.05	1.50	2.20	1.44	2.29
Total	2.82		2.66		2.37		2.45		2.57

Table 21. ANOVA summary for treatment and comparison groups; FES, expressiveness subscale.

Source	SS	df	M	F	p
Group	.10	1	.10	.02	.896
Error	207.37	36	5.76		
Time	2.56	3	.85	.88	.454
G x T	4.96	3	1.65	1.70	.171
Error	104.68	108	.97		

Table 22. Descriptive statistics; FES, expressiveness subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	4.33	1.28	5.06	1.35	4.94	1.06	4.72	1.64	4.76
Comparison	4.80	1.36	4.80	1.74	4.45	1.39	4.80	1.77	4.71
Total	4.58		4.92		4.68		4.76		4.74

Organization Subscale. The treatment and comparison groups were compared on the FES Organization subscale at four points in time (pretest, midpoint, posttest, and follow-up). The pretest scores of the t test [$t(36) = -.02$, $p < .981$] indicated that the groups were comparable at this point. The overall mean scores of the treatment and comparison groups were not significantly different for the main effect of group participation, $F(1,36) = .01$, $p < .904$. The comparison group had a slightly higher mean score on the Organization subscale ($x = 6.85$) when compared with the treatment group ($x = 6.79$). Table 23 presents the ANOVA summary table and Table 24 presents the descriptive statistics for this analysis.

In reference to the main effect of time, there was no significant difference in the mean Organization subscale scores for the two groups, $F(3,108) = 1.97$, $p < .123$. It appeared that the average group score changed little during the course of the measurement period. The interaction between group membership and time was not significant, $F(3,108) = .15$, $p < .931$.

Active-Recreational Orientation. The groups were compared at the initial assessment point and found to be comparable for this subscale, $t(36) = .79$, $p < .434$. When the treatment and comparison groups were compared on the Active-Recreational Orientation subscale across the four

Table 23. ANOVA summary for treatment and comparison groups; FES, organization subscale

Source	SS	df	M	F	p
Group	.13	1	.13	.01	.904
Error	311.83	36	8.66		
Time	2.39	3	.80	1.97	.123
G x T	.18	3	.06	.15	.931
Error	43.63	108	.40		

Table 24. Descriptive statistics; FES, organization subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	6.89	1.37	6.61	1.42	6.83	1.58	6.83	1.65	6.79
Comparison	6.90	1.45	6.60	1.79	7.00	1.62	6.90	1.62	6.85
Total	6.89		6.61		6.92		6.87		6.82

points in time, the overall mean scores were not significantly different for the main effect of group participation at the $p < .05$ level, $F(1,36) = 2.23$, $p < .144$. The treatment group scored higher on the Active-Recreational Orientation subscale ($x = 4.63$) than the comparison group ($x = 3.74$) across time. Table 25 presents the ANOVA summary data and Table 26 presents the descriptive statistics for this analysis.

There was no significant difference in the mean Active-Recreational Orientation subscale scores for the main effect of time, $F(3,108) = 1.95$, $p < .126$. It appeared that the treatment group progressively gained from pretest to posttest, declining at the follow-up while the comparison group varied up and down over time. The interaction between the group membership and time was not significant, $F(3,108) = .94$, $p < .426$.

Moral-Religious Subscale. The treatment and comparison groups were compared on the FES Moral-Religious subscale at the four measurement points. A t test performed at the pretest point indicated that the groups were comparable for this subscale, $t(36) = -1.53$, $p < .135$. Regarding the main effect of group participation, the overall mean scores of the two groups were not significantly different, $F(1,36) = 2.08$, $p < .158$. The comparison group scored higher ($x = 5.79$) than the treatment group ($x = 4.86$) on the

Table 25. ANOVA summary for treatment and comparison groups; FES, active-recreational orientation subscale.

Source	SS	df	M	F	p
Group	29.85	1	29.85	2.23	.144
Error	480.86	36	13.36		
Time	6.12	3	2.04	1.95	.126
G x T	2.93	3	.98	.94	.426
Error	112.83	108	1.04		

Table 26. Descriptive statistics; FES, active-recreational orientation subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	4.11	2.32	4.56	1.97	4.94	2.41	4.89	2.34	4.63
Comparison	3.60	1.64	3.80	1.96	3.70	1.78	3.85	1.76	3.74
Total	3.84		4.16		4.29		4.34		4.16

Moral-Religious subscale. Table 27 presents the ANOVA summary data and Table 28 presents the descriptive statistics for this analysis.

There was a significant difference in the mean Moral-Religious subscale scores for the main effect of time, $F(3,108) = 7.89$, $p < .001$. The average score for both the treatment and comparison groups' increased in each succeeding measurement. The overall means for all participants at pretest, midpoint, posttest, and follow-up were 4.97, 5.26, 5.50 and 5.66 respectively (Table 28). It appeared that the subjects in both groups gained in their Moral-Religious subscale scores at each of the measurement points.

The interaction between the group membership and time was not significant, $F(3,108) = .51$, $p < .673$.

Hypothesis 3

The third hypothesis stated that couples participating in the family psycho-educational program would show a significant decrease in their perceived psychological symptoms (as measured by the SCL-90-R) when compared with couples who do not participate in the program. The SCL-90-R is comprised of 10 separate subscales. For the purposes of this study, five of the subscales were utilized to assess the program's impact on psychological symptoms. These subscales included Somatization, Interpersonal Sensitivity, Depression, Anxiety, and Hostility. The analyses of the

Table 27. ANOVA summary for treatment and comparison groups; FES, moral-religious subscale.

Source	SS	df	M	F	p
Group	32.52	1	32.52	22.08	.158
Error	563.25	36	15.65		
Time	10.08	3	3.36	7.89	.001*
G x T	.66	3	.22	.51	.673
Error	45.97	108	.43		

* Significant at $p < .05$ level

Table 28. Descriptive statistics; FES, moral-religious subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	4.44	1.85	4.89	2.03	4.94	2.10	5.17	2.04	4.86
Comparison	5.45	2.16	5.60	2.09	6.00	2.08	6.10	2.07	5.79
Total	4.97		5.26		5.50		5.66		5.35

reported data for each of these five subscales for both the treatment and comparison groups are presented.

Somatization Subscale. The treatment and comparison groups were compared on the SCL-90-R Somatization subscale at four points in time (pretest, midpoint, posttest, and follow-up). The t test performed at the pretest point indicated that the groups were comparable on the Somatization subscale, $t(36) = -.98$, $p < .334$. The overall mean scores of the treatment and comparison groups were significantly different for the main effect of group participation, $F(1,36) = 4.48$, $p < .041$. The comparison group scored higher on the Somatization subscale ($x = .54$) than the treatment group ($x = .30$). Table 29 presents the ANOVA summary data and Table 30 presents the descriptive statistics for this analysis.

There was no significant difference in the mean Somatization subscale scores for the main effect of time, $F(3,108) = 1.23$, $p < .304$. It appeared that the treatment group progressively decreased in its mean somatization score while the comparison group initially decreased in its mean score but then remained consistent across the last three measurement points. The interaction between group membership and time was not significant, $F(3,108) = .22$, $p < .883$.

Interpersonal Sensitivity Subscale. The groups were compared on their pretest subscale scores and found to be

Table 29. ANOVA summary for treatment and comparison groups; SCL-90-R, somatization subscale.

Source	SS	df	M	F	p
Group	2.25	1	2.25	4.48	.041*
Error	18.10	36	.50		
Time	.33	3	.11	1.23	.304
G x T	.06	3	.02	.22	.883
Error	9.66	108	.09		

* Significant at $p < .05$ level

Table 30. Descriptive statistics; SCL-90-R, somatization subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	.40	.50	.31	.30	.23	.27	.26	.37	.30
Comparison	.59	.67	.54	.51	.52	.37	.53	.37	.54
Total	.50		.43				.40		.43

comparable, $t(36) = -1.32$, $p < .196$. When the treatment and comparison groups were compared on the SCL-90-R's Interpersonal Sensitivity subscale across four points in time, the overall mean scores were not significantly different for the main effect of group participation, $F(1,36) = 2.79$, $p < .104$. On the average, the comparison group scored higher on this subscale ($x = .50$) than the treatment group ($x = .32$). Table 31 presents the ANOVA summary data and Table 32 presents the descriptive statistics for this analysis.

The main effect of time on the Interpersonal Sensitivity subscale scores was examined with an F test. This test indicated a significant difference in the combined groups over four points in time, $F(3,108) = 3.90$, $p < .011$. The combined means for all participants at pretest, midpoint, posttest, and follow-up were .512, .400, .385 and .371 respectively (Table 32). On the average, the subjects progressively decreased in their level of Interpersonal Sensitivity from pretest through follow-up. The treatment group showed the greater decrease while the comparison group initially showed a substantial decrease and then maintained that level through to follow-up.

The interaction between group membership and time was not significant, $F(3,108) = .23$, $p < .877$.

Table 31. ANOVA summary for treatment and comparison groups; SCL-90-R, interpersonal sensitivity subscale.

Source	SS	df	M	F	p
Group	1.28	1	1.28	2.79	.104
Error	16.46	36	.46		
Time	.47	3	.16	3.90	.011*
G x T	.03	3	.01	.23	.877
Error	4.35	108	.04		

* Significant at $p < .05$ level

Table 32. Descriptive statistics; SCL-90-R; interpersonal sensitivity subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	.41	.36	.33	.26	.28	.23	.26	.23	.32
Comparison	.60	.49	.47	.39	.48	.46	.47	.46	.50
Total	.51		.40		.39		.37		.42

Depression Subscale. The treatment and comparison groups were compared on the SCL-90-R Depression subscale at the four points in time. The t test performed at the pretest point indicated that there was no significant differences between the subscale scores, $t(36) = -.96$, $p < .343$. The overall mean scores of the treatment and comparison groups were not significantly different for the main effect of group participation, $F(1,36) = 2.26$, $p < .142$. The control group scored lower on the Depression subscale ($x = .435$) when contrasted with the comparison group ($x = .660$). Table 33 presents the ANOVA summary data and Table 34 presents the descriptive statistics for this analysis.

The impact of the main effect of time on the Depression subscale was examined with an F test. This test indicated a significant difference in the combined group mean scores over four points in time, $F(3,108) = 3.82$, $p < .012$. The combined mean for the two groups at pretest, midpoint, posttest, and follow-up were .687, .549, .500 and .478, respectively (Table 34). It appeared that the entire sample of subjects decreased in their mean depression subscale scores, with the treatment group exhibiting a lower level of depression at each measurement point and the comparison group progressively decreasing from pretest through the posttest and increasing slightly at the follow-up.

Table 33. ANOVA summary for treatment and comparison groups; SCL-90-R, depression subscale.

Source	SS	df	M	F	p
Group	1.91	1	1.91	2.26	.142
Error	30.52	36	.85		
Time	1.00	3	.33	3.82	.012*
G x T	.09	3	.03	.34	.795
Error	9.42	108	.09		

* Significant at $p < .05$ level.

Table 34. Descriptive statistics; SCL-90-R, depression subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	.57	.51	.43	.33	.42	.29	.33	.24	.44
Comparison	.79	.86	.66	.57	.57	.52	.62	.55	.66
Total	.69		.55		.50		.48		.55

The interaction between group membership and time was not significant, $F(3,108) = .34$, $p < .795$.

Anxiety Subscale. The treatment and comparison groups were compared on the SCL-90-R's Anxiety subscale at the four measurement points. The t test performed at the initial assessment point indicated that the groups were comparable, $t(36) = -1.41$, $p < .168$. The overall mean scores for the groups were $x = .215$ (treatment group) and $x = .428$ (comparison group). Although the mean scores were not significantly different for the main effect of group participation at the $p < .05$ level, the scores approached significance, $F(1,36) = 3.69$, $p < .063$. The treatment group scored much lower on the Anxiety subscale at all four points in time, almost 50% lower in each case. Table 35 presents the ANOVA summary data and Table 36 presents the descriptive statistics for this analysis. It appeared that the average group score decreased over time.

The impact of the main effect of time on the Anxiety subscale was examined with an F test. This test indicated a significant difference in the combined group mean scores over the four points in time, $F(3,108) = 4.31$, $p < .007$. The combined group means at the four measurement points were .479, .284, .263, and .282 from pretest to follow-up. It appeared that the treatment group started with a much lower level of anxiety and continued to reduce this score while

Table 35. ANOVA summary for treatment and comparison groups; SCL-90-R, anxiety subscale.

Source	SS	df	M	F	p
Group	1.71	1	1.71	3.69	.063
Error	16.67	36	.46		
Time	1.14	3	.38	4.31	.007*
G x T	.14	3	.05	.52	.670
Error	9.53	108	.09		

* Significant at $p < .05$ level

Table 36. Descriptive statistics; SCL-90-R, anxiety subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	.32	.30	.21	.23	.18	.22	.16	.21	.22
Comparison	.62	.85	.36	.39	.34	.33	.40	.43	.43
Total	.48		.28		.26		.28		.33

the comparison group cut their anxiety score substantially from the pretest to the midpoint and then maintained that level at posttest with a slight increase in anxiety subscale score at the follow-up.

The interaction between group membership and time was not significant, $F(3,108) = .52$, $p < .670$.

Hostility Subscale. The treatment and comparison groups were compared on the SCL-90-R's Hostility subscale at the four measurement points (pretest, midpoint, posttest, and follow-up). A t test at the pretest point reflected the comparability of the two groups for this subscale, $t(36) = -1.27$, $p < .212$. The overall means scores of the treatment and comparison groups were not significantly different for the main effect of group participation, $F(1,36) = 1.34$, $p < .255$. The comparison group scored higher on the Hostility subscale, $x = .429$, when contrasted with the treatment group, $x = .305$. Table 37 presents the ANOVA summary data and Table 38 presents the descriptive statistics for this analysis.

Over time, there was no significant difference in the mean Hostility scores, $F(3,108) = 2.60$, $p < .056$. The interaction between group membership and time was not significant, $F(3,108) = .48$, $p < .694$.

Table 37. ANOVA summary for treatment and comparison groups; SCL-90-R, hostility subscale.

Source	SS	df	M	F	p
Group	.58	1	.58	1.34	.255
Error	15.63	36	.43		
Time	.25	3	.08	2.60	.056
G x T	.05	3	.02	.48	.694
Error	3.51	108	.03		

Table 38. Descriptive statistics; SCL-90-R, hostility subscale.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	.35	.42	.28	.28	.28	.34	.31	.36	.31
Comparison	.52	.42	.42	.31	.39	.39	.38	.36	.43
Total	.44		.35		.34		.35		.37

Hypothesis 4

The fourth hypothesis stated that the couples participating in the family psycho-educational group would show a significant increase in their knowledge of the etiology, treatment, and phenomena of chronic mental illness (as measured by the Mental Illness Questionnaire) when compared with the couples not participating in the group. The Mental Illness Questionnaire is a 20 question true-false measure comprised of questions taken from the course material presented in the family psycho-educational group.

Treatment and comparison groups were compared on the number of correct answers selected on the Mental Illness Questionnaire at three assessment points of pretest, posttest, and follow-up. A t test at the initial assessment point demonstrated that the groups were not significantly different, $t(36) = 1.69$, $p < .101$. The overall mean scores for the treatment and control groups were significantly different for the main effect of group participation, $F(1,36) = 12.53$, $p < .001$. Overall, the treatment group selected a higher number of correct responses on the Mental Illness Questionnaire ($x = 17.46$) when compared with the comparison group ($x = 15.18$). Table 39 presents the ANOVA summary and Table 40 presents the descriptive statistics for this analysis.

Table 39. ANOVA summary for treatment and comparison groups; mental illness questionnaire.

Source	SS	df	M	F	p
Group	147.70	1	147.70	12.53	.001*
Error	424.41	36	11.79		
Time	49.09	2	24.54	20.27	.001*
G x T	14.42	2	7.21	5.96	.004*
Error	87.11	72	1.21		

* Significant at $p < .05$ level

Table 40. Descriptive statistics; mental illness questionnaire.

Group	<u>Pretest</u>		<u>Midpoint</u>		<u>Posttest</u>		<u>Follow-up</u>		Total
	M	SD	M	SD	M	SD	M	SD	
Treatment	16.06	2.92			17.94	1.86	18.39	1.61	17.46
Comparison	14.75	1.77			15.40	2.41	15.40	2.21	15.18
Total	15.37				16.61		16.81		16.26

The impact of the main effect of time on the Mental Illness Questionnaire scores was examined via an F test. This test indicated a significant difference in the combined groups over three points in time (pretest, posttest, and follow-up), $F(3,108) = 20.29$, $p < .001$. The means at pretest, posttest, and follow-up were 15.37, 16.61 and 16.81, respectively (Table 40). It appeared that on the average the subjects gained in their knowledge about mental illness at each subsequent measurement point. The comparison group increased slightly in their knowledge from pretest to posttest, maintaining that level at the follow-up. The treatment group increased their level of knowledge at an average of almost 2 full points from pretest to posttest, with another slight increase at the follow-up measurement point.

The effect of the interaction of the treatment and time on subjects knowledge of mental illness was significant, $F(3,108) = 5.96$, $p < .004$. The means of the treatment and comparison groups were examined to identify the source of the interaction (Table 40). Treatment and comparison groups appeared similar at pretest (with the treatment group scoring one point higher).

T tests were performed on the pretest, posttest, and follow-up scores to determine if there was a significant difference between the groups at these points in time.

These tests indicated that there was not a significant difference ($p < .05$) at the pretest, $t(36) = 1.69$, $p < .101$. There were significant differences noted between the scores at posttest, $t(36) = 3.61$, $p < .001$, and at the follow-up, $t(36) = 4.71$, $p < .001$. The interaction effects between group and time seemed to occur across both points in time. The F test for interaction shows clearly that overall there is an interaction occurring. Subjects participating in the family psycho-educational group learned more about chronic mental illness as a result of group participation, and they maintained that knowledge when compared to those who did not participate in the psycho-educational group.

Life Experiences Survey

The participants in this study completed the Life Experiences Survey (Sarason, Johnson & Siegel, 1978) at the pre- and follow-up points to identify the occurrence of any major life events just prior to or during the treatment period. Significant life experiences during this time could potentially confound scores on the assessment measurements. The mean scores for the two groups seem equivalent at both measurement points. The treatment group score averaged 16.3 at the pretest and 15.8 at the follow-up while the comparison group's mean scores were 17.7 and 16.8 at the same two points. Many of the respondents had checked off items on the Life Experience Survey which seemed related to

the chronic illness in the family (e.g., serious illness or injury of close family member). While there were usually a larger number of items having a negative rather than positive impact, this seemed consistent across the two groups.

Conclusion

This chapter presented the results of the statistical analyses performed to test the four general research hypotheses. A two factor repeated measured analysis of variance (ANOVA) was employed to identify significant changes in the mean scores between the treatment and comparison groups across time. The two factors were group participation and time. T tests were performed to ensure the comparability of the groups for each subscale at the pretest points. When significant differences were identified between the two groups, t tests were performed on the midpoint, posttest, and follow-up mean scores in an attempt to identify the source of the significant interaction effect. Chapter 5 presents a discussion of these results.

CHAPTER 5

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

The final chapter of this study addresses three major topics. The first section offers a summary of the study, highlighting the important design components. These include the purpose of the study, information regarding subjects (group membership, recruitment, and demographics), the research hypotheses and dependent variables, assessment instruments, a description of the psycho-educational group treatment, and the research design and data analysis procedures. The second phase of this chapter addresses the results of the data analysis for the research hypotheses, with a discussion of the implications of these findings. Finally, recommendations for future research are presented.

Summary

Purpose of the Study

Although aspects of chronic mental illness have been studied extensively, research examining the impact of these illnesses on the family has lagged behind until recent years. During the past decade the mental health community began providing support and education for families of the

mentally ill to assist with the significant burden of care resulting from the advent of deinstitutionalization. Several psycho-educational programs have been developed to teach families the facts, as we know them, and dispel the myths that abound regarding chronic mental illness. In addition, these programs intend to teach coping behaviors toward the end of improving the daily lives of both family and patient.

While the development of these programs is encouraging, the evaluation of their impact on the family has not followed in most cases. The purpose of this study was to evaluate one such psycho-educational program, examining its effect on several variables for families of the chronically mentally ill.

Subjects

The participants in this study were parental couples with a chronically mentally ill offspring. Nineteen couples, or 38 subjects, participated in the study. The treatment group subjects were recruited from the participants attending a psycho-educational group provided at a community mental health agency in a large city in the southwestern United States. The group was advertised through the local media and within a network of community mental health agencies. It also received referrals from within the agency itself. Eighteen participants (9 couples)

were included in the treatment group as a result of this method of recruiting.

The comparison group was comprised of 20 subjects (10 couples). These participants were recruited from families whose offspring were already receiving services at the community mental health center providing the psycho-educational group.

Requirements for participation in the study included no previous attendance in the psycho-educational group, close contact with the mentally ill family member, no current participation in counseling, and an intact marital relationship.

The two groups were matched on several variables identified as significant in previous studies of families of the chronically mentally ill (Jacob, 1975). These variables included age, number in the household, level of education, religious preference, and ethnic identification. In addition, participants were matched for current marital status and previous divorces/separations, length of marriage, employment status, and family income. Finally, they were compared for the sex, age, birth position, and length of illness for the chronically mentally ill offspring.

Research Hypotheses and Dependent Variables

Four general research hypotheses were generated to assess the impact of participation in the psycho-educational

group on the four dependent variables. Each hypothesis was used to test one of the variables. The dependent variables examined in this study included the perceived quality of the parents' marital relationships, the perceived quality of the family environment, the level of psychological symptoms reported by parents, and the amount of information regarding chronic mental illness acquired and retained.

The first research hypothesis addressed the variable of perceived quality of the parents' marital relationship. It was hypothesized that couples participating in the psycho-educational group would demonstrate a significant improvement in the perceived quality of their marital relationships (as measured by the Dyadic Adjustment Scale) when compared with couples not participating in the psycho-educational group.

The second hypothesis focused on the perceived quality of the family environment variable. This hypothesis contended that the couples participating in the psycho-educational group would show a significant improvement in the perceived quality of their family environment (as measured by the Family Environment Scale) when compared with couples not participating in the psycho-educational group.

The third variable under study was the level of psychological symptoms experienced by the parents. The associated research hypothesis examining this variable stated

that the couples participating in the psycho-educational group would experience a significant decrease in their perceived psychological symptoms (as measured by the Symptom Checklist-90-Revised) when compared with couples not participating in the psycho-educational group.

Knowledge regarding chronic mental illness was the final variable under study. The fourth general hypothesis addressed the amount of knowledge that couples acquired and retained regarding chronic mental illness. It was believed that the couples participating in the psycho-educational group would show a significant increase in their knowledge of the etiology, treatment and phenomena of chronic mental illness (as measured by the Mental Illness Questionnaire) when compared with couples not participating in the psycho-educational program.

Assessment Instruments

The research instruments utilized in this study were selected to assess the dependent variables. Each dependent variable was assessed by one measurement instrument. The Dyadic Adjustment Scale (Spanier, 1976) was selected to assess the perceived quality of the couples' marital relationships. This scale is comprised of four subscales: Dyadic Consensus, Dyadic Cohesion, Dyadic Satisfaction, and Affectional Expression. Thus the DAS yields four subscale scores along with a total scale score. This self-

administered paper and pencil measure is based on the Locke-Wallace Marital Adjustment Scale (Locke and Wallace, 1976). The DAS meets the criteria for content, criterion-related, and construct validity. Reliability criteria has also been established (Spanier, 1976). The DAS was completed at the pretest, midpoint, posttest, and follow-up assessment points.

The Family Environment Scale (Moos, 1981) assessed the second variable, the quality of the family environment. The FES is comprised of 10 subscales, eight of which were utilized in this study. These include the Cohesion, Independence, Control, Conflict, Expressiveness, Organization, Active-Recreational Orientation, and Moral-Religious subscales. A score was generated for each subscale. The instrument possesses good face validity and the test-retest reliability falls in the acceptable range (Moos, 1981). The FES was completed at all four measurement points.

The Symptom Checklist-90-Revised (SCL-90-R) is a 90 item self-administered assessment used to measure the level of reported psychological symptoms. The SCL-90-R has been normed on various groups, including in-patient, out-patient, and non-patient males and females. Concurrent validity (Derogatis, Rickles, and Rock, 1976) and face validity have been established. Internal consistency and test-retest correlations have proven the reliability of the instrument.

Five subscales from the SCL-90-R were utilized for this study, with each subscale yielding its own score. These subscales include Somatization, Interpersonal Sensitivity, Depression, Anxiety, and Hostility. These subscales were administered at each measurement point; pretest, midpoint, posttest, and the four week follow-up.

A 20 question true-false paper and pencil measure was created to assess the participants' level of knowledge regarding chronic mental illness. This assessment was called the Mental Illness Questionnaire. Questions were drawn directly from the material presented during the course of the psycho-educational group. This questionnaire was completed at the pre-, post-, and follow-up points.

In addition, participants completed the Life Experience Survey at the pretest and follow-up points. This survey allowed the participants to identify various life events and rate their impact during two time periods; the previous six months and the previous year. This instrument provided a vehicle to assess any other important life events which might have influenced the participants' responses on the other assessment instruments.

Individual interviews were conducted at the 4 week follow-up point. The purpose of these interviews was to identify aspects of the family's experience of dealing with chronic mental illness which were not easily assessed via

standardized measures. Participants were able to directly comment on the impact of the family member's illness on their marital relationship, family environment, and mental and physical health. In addition, participants in the psycho-educational group commented on the perceived value of the group toward improving marital and family relationships while reducing psychological and physical symptoms.

Psycho-educational Group Treatment

The psycho-educational treatment group was based on a model created by Bisbee and Mullaly (1983). This group's approach is to educate families about various aspects of chronic mental illness without placing blame on the family. This model purports that chronic mental illness results from physiological and genetic factors. The group met for two hours each week over the course of nine weeks. The group addressed a number of topics including the myths regarding mental illness, changes (in mood, perception, thought, and behavior) experienced by the individual afflicted with a schizophrenic disorder, and the impact of substance abuse on mental illness. In addition, affective disorders, treatment and management strategies, the family's role, and the involuntary commitment process were discussed.

The group was conducted in a didactic style by two co-facilitators. Discussion of the material was encouraged

within the group meetings. Handouts were distributed to provide additional information for the weekly topic.

Research Design and Data Analysis

This study utilized a non-randomized comparison-group pre-post research design (Isaac and Michael, 1981). Subjects completed the assessment inventories at four points: pretest, midpoint, posttest, and at a four week follow-up. Random assignment of subjects to groups did not take place in this study. The treatment group subjects were selected from participants in the 9 week psycho-educational group. Comparison group subjects were chosen to match the treatment group on selected demographic variables.

The measurement instruments were hand delivered to all treatment group participants. The majority of comparison group subjects received their assessment instruments directly from the researcher, although, in a few cases, the assessment materials were sent through the mail. The individual interviews at the four week follow-up were evenly divided between face to face and telephone interviews.

The data collected in this study were analyzed using a two factor repeated measures analysis of variance (ANOVA). The two factors examined were group participation and time. The interaction between the two factors was also analyzed to identify significant differences between the group means. To insure that the groups were comparable at the pretest

point, t tests were performed to identify any significant differences at the $p < .05$ level. No significant differences between these groups were found at the pretest using this criteria.

Results

The results of the statistical analyses used to test the research questions yielded partial support for the hypotheses. The DAS, with its four subscales and total scale score, assessed changes in the perceived quality of the parents' marital relationships. For the Dyadic Consensus subscale, significant differences were noted between the treatment and comparison groups for the main effect of time and the interaction between time and group participation. A significant difference between group means was found in the interaction of time and group participation for both the Dyadic Cohesion and Affectional Expression subscales. Finally, significant differences were noted between the treatment and comparison groups for the main effect of time and the interaction of time and group participation in the total scale scores. All other main effects of time and group participation, as well as the interaction effects for the other DAS subscales, yielded no significant differences between the groups.

The second hypothesis, addressing changes in the perceived family environment, was not supported for the most

part. With the exception of the main effect of time for the Cohesion subscale and the Moral-Religious subscale, no significant differences were found between the treatment and comparison group mean scores.

The third hypothesis received partial support based on the analysis of the data. This hypothesis suggested that participation in treatment would reduce the reported psychological symptoms of participants. The analysis of the Somatization, Interpersonal Sensitivity, Depression, and Anxiety subscale scores indicated a significant difference in the combined groups scores for the main effects of time. The interaction effects for all subscales did not indicate significant differences between groups. The main effects of group participation and time for the remaining subscales did not show significant differences between the treatment and comparison groups.

The final hypothesis, stating that subjects participating in the group would learn and retain more information regarding chronic mental illness, received support based on the data analysis. Significant differences between groups were found for both main effects of group participation and time, along with the interaction between group participation and time.

Implications

The following implications are suggested as a result of synthesizing the results of the data analysis with the review of the literature.

1. A number of subscales used to assess the general research hypotheses failed to identify significant differences between the means of the treatment and comparison groups. This outcome may have resulted from insufficient exposure of the treatment group to the psycho-educational treatment program. According to Anderson, Hogarty, and Reiss (1981), substantial and lasting change in most dependent variables cannot be expected until family members have been involved in treatment, education, and support for a minimum of 18-24 months. The subjects may require more extensive exposure to treatment before experiencing the change in these variables predicted by the research hypotheses.
2. Exposure to the group psycho-educational model seems to result in a significant increase in the level (and retention) of information regarding various aspects of chronic mental illness. Families can utilize this group educational modality to increase their knowledge of the disorder and to dispel the myths. With this knowledge, family expectations,

both for themselves and their chronically mentally ill family member, may be more realistic. In addition, families may better understand the alternatives for dealing with this devastating illness.

3. Participation in a psycho-educational group for two hours per week over nine consecutive weeks seems to have a positive effect on several aspects of marital relationships. These include the areas of cohesion, consensus, and expression of affection. Since the comparison group in this study did not necessarily spend the same two hours each week involved in a joint activity, it is not certain that the psycho-educational group, as opposed to any joint activity lasting two hours in each of nine weeks, accounts for these improvements in the quality of the marital relationship. However, the results of this study indicate that shared time on a weekly basis can produce a positive effect on the marital relationships for couples dealing with chronic mental illness within the family.
4. The increased feelings of cohesiveness which developed within the marital relationships of treatment group members seemed to generalize to the family environment. Since family members were encouraged to be supportive of each other and their chronically

mentally ill family member during the course of the psycho-educational group, it is not surprising that they reported increased feelings of cohesion in both the marital and family relationships.

5. In this study, significant findings were identified for the main effect of time for several subscales in each of the measurement instruments. These include the Dyadic Consensus subscale and total scale score for the DAS, the Cohesion and Moral-Religious subscales of the FES, the Interpersonal Sensitivity, Depression, and Anxiety subscales of the SCL-90-R, and the Mental Illness Questionnaire. This indicates that the combined group mean scores were significantly different across time.

Since all participants had, on the average, already been dealing with the chronic mental illness of their family members for an extended time period (7.3 years for the treatment group, 6.5 years for the comparison group), it would not be expected that the combined group score would change significantly during this 13 week period (nine week treatment plus four week follow-up) because of a sudden increased ability to make changes measurable by the instruments. Thus, the significant differences noted for the main effect of time may have resulted

because subjects were effected by the testing procedures/instruments. Subjects may have responded differently across time simply because of repeated exposure to the measurement instruments. Another possibility is that subjects changed their behavior (resulting in changes in the dependent variables) after becoming sensitized to the variables assessed by the testing procedures. Thus, the threat of the testing effect to internal validity may account for the significant differences found in the main effect of time.

6. Several significant differences were noted between the group means for the interaction of time and group participation. One explanation for these significant differences is that psycho-educational group participation, in conjunction with the passage of time, actually does result in significant changes in the dependent variables. Another explanation for these significant differences in the interaction effect lies in the inherent differences between the groups. Since one group (treatment) was comprised of persons voluntarily seeking education while the other (comparison) was recruited, there may be important inherent differences in the subjects of the two groups. These inherent differences may

account for the significant findings. According to Isaac and Michael (1981), the main threat to internal validity in this non-randomized control-group pretest-posttest design is the interaction of the selection variable with another variable (maturation, history, testing).

7. The information obtained from the individual interviews conducted at the four week follow-up point provides a strong confirmation of the detrimental impact of chronic mental illness on marital and family relationships and the emotional and physical health of many participants. The true impact of this devastating illness on the family may not be clearly identified by standardized assessment instruments. While acknowledging the potential problems associated with subjective self reports, these testimonies regarding the impact of the illness on other family members do correspond with the findings presented in numerous research studies conducted with this population.

Recommendations for Future Research

A number of recommendations for future research are suggested to address the phenomena of the chronic mental illness, especially in relation to treatment programs provided for families of these patients.

1. The design of this study could be strengthened in a duplication study which randomly assigned subjects to treatment and control groups. This would result in a true experimental design with the capability of identifying cause and effect relationships. Random assignment would also control for any inherent differences between the samples resulting from one group voluntarily seeking education while the other (comparison group) is recruited by the researcher to participate.
2. A series of duplication studies yielding similar findings would further support the research hypotheses. Although larger numbers of participants in both treatment and comparison groups would add to the confidence in any significant differences identified, the effectiveness of psycho-educational treatments might be compromised with groups significantly larger in size than that studied in this research project. Thus, duplication studies finding similar results would provide support for the research hypotheses, while larger groups may reduce the positive impact of the psycho-educational group.
3. Studies can be undertaken to determine if the size of the psycho-educational group significantly effects the degree of change identified in the

dependent variables assessed. If the group size does result in significantly different levels of change, future groups could be conducted with the optimum level of participants.

4. This study would be strengthened through the use of more objective measurement procedures for the assessment of dependent variables. If objective measures produced results similar to those found in this study, a much stronger endorsement of the group's effectiveness would be made. These objective assessments might include behavioral checklists, videotaping (and scoring) role play situations at the various assessment points, or third party observation reports (within home observation).
5. Other treatment procedures should be studied to identify their effect upon dependent variables for families with a chronically mentally ill member. For example, enrolling the chronically ill family member in a day treatment program might also prove beneficial in improving the family environment and reducing the psychological symptoms of other family members. To date, relatively few studies have examined the impact of treatment programs on persons other than the patient. All procedures currently employed to treat the chronically mentally ill could

be studied to identify their impact on all persons within the family system.

6. Ongoing and long-term psycho-educational groups, similar in form to the Anderson, Hogarty, and Reiss project (1981), can be developed and implemented. The impact of these long term projects on specific variables for other family members can then be evaluated. These findings might provide documentation for the efficacy of comprehensive and ongoing educational programs for families of the chronically mentally ill.
7. Restricted generalizability might be one limitation of this study since most participants were white, middle to upper-middle class, educated, working persons. Similar studies should be conducted to evaluate the value and effectiveness of psycho-educational groups for families situated across the continuum of various demographic variables. These variables might include socio-economic status, ethnic background, and religious affiliation. In this way, the mental health community could match the best treatment and education procedures for all families of the chronically mentally ill.
8. Additional assessment tools can be incorporated into future studies to test the validity of the measures.

Thus, one study might utilize three different measures to assess the quality of the marital relationship. This would enable researchers to check the validity of these assessment instruments when examining the variables for this population.

9. A duplication study should be conducted in which the person(s) distributing the assessment instruments and conducting the individual interviews does not participate in facilitating the psycho-educational group program. The dual role played by a researcher in co-facilitating and collecting/analyzing data might have an influence on the responses of the participants.
10. Several studies might be conducted focusing on various relatives of the chronically mentally ill. These studies might examine the impact of psycho-educational groups on siblings, spouses, and/or children of the mentally ill. Researchers could then develop treatment programs which emphasize issues according to the particular concerns of specific family members.

Closing Comment

The findings of this study provide a hopeful sign for families of the chronically mentally ill. This research supports the contention that families participating in a

psycho-educational group can learn and retain information regarding their family member's illness. This knowledge can produce a better understanding of the afflicted family member's experience, along with more realistic expectations for all members of the family.

APPENDIX A

OBJECTIVES OF THE PSYCHO-EDUCATIONAL GROUP

OBJECTIVES OF THE PSYCHO-EDUCATIONAL GROUP

Week 1: Introduction/Myths and Muddles

1. Establish a relaxed and informal yet academic atmosphere for the group.
2. Answer any questions from participants about what to expect from the group.
3. Review material to be covered during the nine weeks.
4. Make participants aware of the commonly held myths about mental illness.
5. Give participants a chance to discuss the myths.
6. Dispell myths and provide an alternative way to view chronic mental illness.

Week 2: Schizophrenia: An Illness
of Perception and Mood

1. Present the concept of schizophrenia along with misconceptions associated with the illness.
2. Define schizophrenia as a disturbance in perception, moods, thoughts, and behavior.
3. Review DSM III (American Psychiatric Association, 1980) criteria for the diagnosis of schizophrenia.
4. Discuss the meaning of perception, how the senses work, and how minor or severe disturbances in perceptions can occur with chronic mental illness.

Week 3: Schizophrenia: An Illness
of Thought and Action

1. Discuss the meaning of thoughts and feelings, their interaction, and ways that the minor or severe cognitive disturbances associated with chronic mental illness impact the individual.
2. Discuss the meaning of behavior, behavioral principles, and ways that the minor or severe behavioral disturbances associated with chronic mental illness impact the individual.
3. Introduce the major forms of treatment for schizophrenia.
4. Introduce ways to manage schizophrenia at home.

Week 4: Chronic Affective Disorders

1. Present the concepts of bipolar and major depressive disorders.
2. Review DSM III (American Psychiatric Association, 1980) criteria for these disorders.
3. Review the theories regarding the etiology of major affective disorders.
4. Discuss differences and similarities of major affective disorders and schizophrenia.
5. Review major forms of treatment for bipolar and major depressive disorders.

Week 5: Substance Abuse and Mental Illness

1. Discuss the possible etiology of this dual diagnosis.
2. Discuss the prevalence of substance abuse in chronically mentally ill persons.
3. Review the main problems associated with this dual diagnosis.
4. Review the suggested treatment approaches available for this dual diagnosis problem.

Week 6: Medication

1. Identify the classes of medications used in the treatment of chronic mental illness.
2. Provide a general overview of the biological theory to explain the etiology of chronic mental illness.
3. Discuss how the medications work.
4. Review the most common side effects.
5. Discuss issues related to medication compliance.

Week 7: Treatment and Management

1. Introduce the distinction between a cure versus the treatment and management of the illness.
2. Outline principles of seeking, contracting, and participating in treatment.
3. Describe various treatments for schizophrenia in the community along with ways to access them.

4. Discuss management techniques for the family whose chronically mentally ill relative lives at home.

Week 8: The Role of the Family

1. Discuss the concepts of patienthood and the family working in concert.
2. Discuss the rights and duties of families.
3. Discuss the rights and duties of patients.
4. Discuss ways of communicating within families, including Expressed Emotion research.
5. Discuss the importance of families finding support for themselves and ways to seek it.

Week 9: The Involuntary Commitment Process/Review

1. Present an overview and explanation of steps in the process of involuntary commitment.
2. Identify resources in the community available to assist with the involuntary commitment process.
3. Distribute listings of community resources that provide services for the chronically mentally ill and their families.
4. Summarize the nine week group, respond to questions and direct to further resources.

APPENDIX B

DYADIC ADJUSTMENT SCALE

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	<u>Always Agree</u>	<u>Almost Always Agree</u>	<u>Occa- sionally Disagree</u>	<u>Fre- quently Disagree</u>	<u>Almost Always Disagree</u>	<u>Always Disagree</u>
1. Handling family finances	_____	_____	_____	_____	_____	_____
2. Matters of recreation	_____	_____	_____	_____	_____	_____
3. Religious matters	_____	_____	_____	_____	_____	_____
4. Demonstrations of affection	_____	_____	_____	_____	_____	_____
5. Friends	_____	_____	_____	_____	_____	_____
6. Sex relations	_____	_____	_____	_____	_____	_____
7. Conventionality (correct or proper behavior)	_____	_____	_____	_____	_____	_____
8. Philosophy of life	_____	_____	_____	_____	_____	_____
9. Ways of dealing with parents or in-laws	_____	_____	_____	_____	_____	_____
10. Aims, goals and things believed important	_____	_____	_____	_____	_____	_____
11. Amount of time spent together	_____	_____	_____	_____	_____	_____
12. Making major decisions	_____	_____	_____	_____	_____	_____
13. Household tasks	_____	_____	_____	_____	_____	_____
14. Leisure time interests and activities	_____	_____	_____	_____	_____	_____
15. Career decisions	_____	_____	_____	_____	_____	_____

	<u>All the time</u>	<u>Most of the time</u>	<u>More often than not</u>	<u>Occa- sionally</u>	<u>Rarely</u>	<u>Never</u>
16. How often do you discuss or have you considered divorce, separation, or terminating your relationship?	_____	_____	_____	_____	_____	_____
17. How often do you or your mate leave the house after a fight?	_____	_____	_____	_____	_____	_____
18. In general, how often do you think that things between you and your partner are going well?	_____	_____	_____	_____	_____	_____
19. Do you confide in your mate?	_____	_____	_____	_____	_____	_____
20. Do you ever regret that you married? (or lived together)	_____	_____	_____	_____	_____	_____
21. How often do you and your partner quarrel?	_____	_____	_____	_____	_____	_____
22. How often do you and your mate "get on each other's nerves?"	_____	_____	_____	_____	_____	_____
		Every Day	Almost Every Day	Occa- sionally	Rarely	Never
23. Do you kiss your mate?		_____	_____	_____	_____	_____
	All of then	Most of then	Some of then	Very few of then	None of then	
24. Do you and your mate engage in outside interest together?	_____	_____	_____	_____	_____	_____

How often would you say the following events occur between you and your mate?

	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
25. Have a stimulating exchange of ideas	_____	_____	_____	_____	_____	_____
26. Laugh together	_____	_____	_____	_____	_____	_____
27. Calmly discuss something	_____	_____	_____	_____	_____	_____
28. Work together on a project	_____	_____	_____	_____	_____	_____

These are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no)

yes No

29. _____ Being too tired for sex.

30. _____ Not showing love.

31. The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

.
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

32. Which of the following statements best describes how you feel about the future of your relationship?

_____ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.

_____ I want very much for my relationship to succeed, and will do all I can to see that it does.

_____ I want very much for my relationship to succeed, and will do my fair share to see that it does.

_____ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.

_____ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.

_____ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

APPENDIX C

ABBREVIATED FAMILY ENVIRONMENT SCALE

ABBREVIATED FAMILY ENVIRONMENT SCALE

NAME _____ DATE _____

DIRECTIONS: FOR THE FOLLOWING STATEMENTS, DECIDE WHICH ARE TRUE FOR YOUR FAMILY AND WHICH ARE FALSE. MARK THE ANSWERS TO THE RIGHT. MARK TRUE IF THE STATEMENT IS ALWAYS OR MOSTLY TRUE. MARK FALSE IF THE STATEMENT IS ALWAYS OR MOSTLY FALSE.

YOU MAY FEEL THAT SOME OF THE STATEMENTS ARE TRUE FOR SOME FAMILY MEMBERS AND FALSE FOR OTHERS. MARK TRUE IF THE STATEMENT IS TRUE FOR MOST MEMBERS OR FALSE IF FALSE FOR MOST MEMBERS. IF THE MEMBERS ARE EVENLY DIVIDED, DECIDE WHICH IS THE STRONGER IMPRESSION AND ANSWER ACCORDINGLY. REMEMBER, WE WOULD LIKE TO KNOW WHAT YOUR FAMILY SEEMS LIKE TO YOU. SO, GIVE US YOUR GENERAL IMPRESSION OF YOUR FAMILY FOR EACH STATEMENT.

	<u>TRUE</u>	<u>FALSE</u>
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 SPEND MOST WEEKENDS AND EVENINGS AT HOME.....	_____	_____
6. FAMILY MEMBERS ATTEND CHURCH, SYNAGOGUE, OR SUNDAY SCHOOL FAIRLY OFTEN.....	_____	_____
7. ACTIVITIES IN OUR FAMILY ARE PRETTY CAREFULLY PLANNED.....	_____	_____
8. FAMILY MEMBERS ARE RARELY ORDERED AROUND.....	_____	_____
9. WE OFTEN SEEM TO BE KILLING TIME AT HOME.....	_____	_____
10. WE SAY ANYTHING WE WANT TO AROUND HOME.....	_____	_____
11. FAMILY MEMBERS RARELY BECOME OPENLY ANGRY.....	_____	_____
12. IN OUR FAMILY, WE ARE STRONGLY ENCOURAGED TO BE INDEPENDENT.....	_____	_____
13. FRIENDS OFTEN COME OVER FOR DINNER OR TO VISIT.....	_____	_____
14. WE DON'T SAY PRAYERS IN OUR FAMILY.....	_____	_____
15. WE ARE GENERALLY NEAT AND ORDERLY.....	_____	_____
16. THERE ARE VERY FEW RULES TO FOLLOW IN OUR FAMILY.....	_____	_____
17. WE PUT A LOT OF ENERGY INTO WHAT WE DO AT HOME.....	_____	_____
18. IT'S HARD TO "BLOW OFF STEAM" AT HOME WITHOUT UPSETTING SOMEBODY.....	_____	_____
19. FAMILY MEMBERS SOMETIMES GET SO ANGRY THEY THROW THINGS.....	_____	_____
20. WE THINK THINGS OUT FOR OURSELVES IN OUR FAMILY.....	_____	_____
21. NOBODY IN OUR FAMILY IS ACTIVE IN SPORTS, LITTLE LEAGUE, BOWLING, ETC.....	_____	_____
22. WE OFTEN TALK ABOUT THE RELIGIOUS MEANING OF CHRISTMAS, PASSOVER, OR OTHER HOLIDAYS.....	_____	_____
23. IT'S OFTEN HARD TO FIND THINGS WHEN YOU NEED THEM IN OUR HOUSEHOLD.....	_____	_____
24. THERE IS ONE FAMILY MEMBER WHO MAKES MOST OF THE DECISIONS.....	_____	_____
25. THERE IS A FEELING OF TOGETHERNESS IN OUR FAMILY.....	_____	_____
26. WE TELL EACH OTHER ABOUT OUR PERSONAL PROBLEMS.....	_____	_____
27. FAMILY MEMBERS HARDLY EVER LOSE THEIR TEMPER.....	_____	_____
28. WE COME AND GO AS WE WANT TO IN OUR FAMILY.....	_____	_____
29. WE OFTEN GO TO MOVIES, SPORTS EVENTS, CAMPING, ETC.....	_____	_____
30. WE DON'T BELIEVE IN HEAVEN OR HELL.....	_____	_____
31. BEING ON TIME IS VERY IMPORTANT IN OUR FAMILY.....	_____	_____
32. THERE ARE SET WAYS OF DOING THINGS AT HOME.....	_____	_____
33. WE RARELY VOLUNTEER WHEN SOMETHING HAS TO BE DONE AT HOME.....	_____	_____
34. IF WE FEEL LIKE DOING SOMETHING ON THE SPUR OF THE MOMENT WE OFTEN JUST PICK UP AND GO.....	_____	_____
35. FAMILY MEMBERS OFTEN CRITICIZE EACH OTHER.....	_____	_____
36. THERE IS VERY LITTLE PRIVACY IN OUR FAMILY.....	_____	_____
37. EVERYBODY IN OUR FAMILY HAS A HOBBY OR TWO.....	_____	_____
38. FAMILY MEMBERS HAVE STRICT IDEAS ABOUT WHAT IS RIGHT AND WRONG.....	_____	_____
39. PEOPLE CHANGE THEIR MINDS OFTEN IN OUR FAMILY.....	_____	_____
40. THERE IS A STRONG EMPHASIS ON FOLLOWING RULES IN OUR FAMILY.....	_____	_____

41. FAMILY MEMBERS REALLY BACK EACH OTHER UP.....
42. SOMEONE USUALLY GETS UPSET IF YOU COMPLAIN IN OUR FAMILY.....
43. FAMILY MEMBERS SOMETIMES HIT EACH OTHER.....
44. FAMILY MEMBERS ALMOST ALWAYS RELY ON THEMSELVES WHEN A PROBLEM COMES UP.....
45. FAMILY MEMBERS ARE NOT VERY INVOLVED IN RECREATIONAL ACTIVITIES OUTSIDE WORK OR SCHOOL.....
46. WE BELIEVE THERE ARE SOME THINGS YOU JUST HAVE TO TAKE ON FAITH.....
47. FAMILY MEMBERS MAKE SURE THEIR ROOMS ARE NEAT.....
48. EVERYONE HAS AN EQUAL SAY IN FAMILY DECISIONS.....
49. THERE IS VERY LITTLE GROUP SPIRIT IN OUR FAMILY.....
50. MONEY AND PAYING BILLS IS OPENLY TALKED ABOUT IN OUR FAMILY.....
51. IF THERE'S A DISAGREEMENT IN OUR FAMILY, WE TRY HARD TO SMOOTH THINGS OVER AND KEEP...
THE PEACE.....
52. FAMILY MEMBERS STRONGLY ENCOURAGE EACH OTHER TO STAND UP FOR THEIR RIGHTS.....
53. FAMILY MEMBERS SOMETIMES ATTEND COURSES OR TAKE LESSONS FOR SOME HOBBY OR INTEREST....
(OUTSIDE OF SCHOOL).....
54. IN OUR FAMILY EACH PERSON HAS DIFFERENT IDEAS ABOUT WHAT IS RIGHT AND WRONG.....
55. EACH PERSON'S DUTIES ARE CLEARLY DEFINED IN OUR FAMILY.....
56. WE CAN DO WHATEVER WE WANT TO IN OUR FAMILY.....
57. WE REALLY GET ALONG WELL WITH EACH OTHER.....
58. WE ARE USUALLY CAREFUL ABOUT WHAT WE SAY TO EACH OTHER.....
59. FAMILY MEMBERS OFTEN TRY TO ONE-UP OR OUT-DO EACH OTHER.....
60. IT'S HARD TO BE BY YOURSELF WITHOUT HURTING SOMEONE'S FEELINGS IN OUR HOUSEHOLD.....
61. FAMILY MEMBERS GO OUT A LOT.....
62. THE BIBLE IS A VERY IMPORTANT BOOK IN OUR HOME.....
63. MONEY IS NOT HANDLED VERY CAREFULLY IN OUR FAMILY.....
64. RULES ARE PRETTY INFLEXIBLE IN OUR HOUSEHOLD.....
65. THERE IS PLENTY OF TIME AND ATTENTION FOR EVERYONE IN OUR FAMILY.....
66. THERE ARE A LOT OF SPONTANEOUS DISCUSSIONS IN OUR FAMILY.....
67. IN OUR FAMILY, WE BELIEVE YOU DON'T EVER GET ANYWHERE BY RAISING YOUR VOICE.....
68. WE ARE NOT REALLY ENCOURAGED TO SPEAK UP FOR OURSELVES IN OUR FAMILY.....
69. OUR MAIN FORM OF ENTERTAINMENT IS WATCHING T.V. OR LISTENING TO THE RADIO.....
70. FAMILY MEMBERS BELIEVE THAT IF YOU SIN YOU WILL BE PUNISHED.....
71. DISHES ARE USUALLY DONE IMMEDIATELY AFTER EATING.....
72. YOU CAN'T GET AWAY WITH MUCH IN OUR FAMILY.....

APPENDIX D

ABBREVIATED SCL-90-R

NAME _____ DATE _____

DIRECTIONS: BELOW IS A LIST OF PROBLEMS AND COMPLAINTS THAT PEOPLE HAVE. READ EACH ONE CAREFULLY, AND SELECT ONE OF THE NUMBERED DESCRIPTORS THAT BEST DESCRIBES HOW MUCH DISCOMFORT THAT PROBLEM CAUSED YOU DURING THE PAST 1 WEEK INCLUDING TODAY. PLACE THAT NUMBER IN THE SPACE TO THE RIGHT OF THE PROBLEM. DO NOT SKIP ANY ITEMS, AND PRINT CLEARLY.

APPENDIX D

ABBREVIATED SCL-90-R

DESCRIPTORS
0-NOT AT ALL
1-A LITTLE BIT
2-MODERATELY
3-QUITE A BIT
4-EXTREMELY

1. HEADACHES.....
2. NERVOUSNESS OR SHAKINESS.....
3. FAINTNESS OR DIZZINESS.....
4. LOSS OF SEXUAL INTEREST OR PLEASURE.....
5. FEELING CRITICAL OF OTHERS.....
6. FEELING EASILY ANNOYED OR IRRITATED.....
7. PAINS IN HEART OR CHEST.....
8. FEELING LOW IN ENERGY OR SLOWED DOWN.....
9. THOUGHTS OF ENDING YOUR LIFE.....
10. TREMBLING.....
11. CRYING EASILY.....
12. FEELING SHY OR UNEASY WITH THE OPPOSITE SEX.....
13. FEELINGS OF BEING TRAPPED OR CAUGHT.....
14. SUDDENLY SCARED FOR NO REASON.....
15. TEMPER OUTBURSTS THAT YOU COULD NOT CONTROL.....
16. BLAMING YOURSELF FOR THINGS.....
17. PAINS IN LOWER BACK.....
18. FEELING LONELY.....
19. FEELING BLUE.....
20. WORRYING TOO MUCH ABOUT THINGS.....
21. FEELING NO INTEREST IN THINGS.....
22. FEELING FEARFUL.....
23. YOUR FEELINGS ARE EASILY HURT.....
24. FEELINGS OTHERS DON'T UNDERSTAND YOU OR ARE UNSYMPATHETIC.....
25. FEELING THAT PEOPLE ARE UNFRIENDLY OR DISLIKE YOU.....
26. HEART POUNDING OR RACING.....
27. HEART POUNDING OR UPSET STOMACH.....
28. FEELING INFERIOR TO OTHERS.....
29. SORENESS OF YOUR MUSCLES.....
30. TROUBLE GETTING YOUR BREATH.....
31. HOT OR COLD SPELLS.....
32. NUMBNESS OR TINGLING IN PARTS OF YOUR BODY.....
33. A LUMP IN YOUR THROAT.....
34. FEELING HOPELESS ABOUT THE FUTURE.....
35. FEELING WEAK IN PARTS OF YOUR BODY.....
36. FEELING TENSE OR KEYED UP.....
37. HEAVY FEELINGS IN YOUR ARMS OR LEGS.....
38. FEELING UNEASY WHEN PEOPLE ARE WATCHING OR TALKING ABOUT YOU.....
39. HAVING URGES TO BEAT, INJURE, OR HARM SOMEONE.....
40. HAVING URGES TO SMASH THINGS.....
41. FEELING VERY SELF-CONSCIOUS WITH OTHERS.....
42. FEELING EVERYTHING IS AN EFFORT.....
43. SPELLS OF TERROR OR PANIC.....
44. FEELING UNCOMFORTABLE ABOUT EATING OR DRINKING IN PUBLIC.....
45. GETTING INTO FREQUENT ARGUMENTS.....
46. FEELING SO RESTLESS YOU COULDN'T SIT STILL.....
47. FEELINGS OF WORTHLESSNESS.....
48. THE FEELING THAT SOMETHING BAD IS GOING TO HAPPEN TO YOU.....
49. SHOUTING OR THROWING THINGS.....
50. THOUGHTS AND IMAGES OF A FRIGHTENING NATURE.....

APPENDIX E

MENTAL ILLNESS QUESTIONNAIRE

MENTAL ILLNESS QUESTIONNAIRE

Please answer the following statements by circling T for True or F for False.

- | | | |
|--|---|---|
| 1. Families do not cause schizophrenia or bipolar disorders. | T | F |
| 2. In causal studies, schizophrenia and bipolar disorders have been found to be caused by family environment. | T | F |
| 3. It has been shown that all families with schizophrenic or bipolar members have histories of severe pathology in them. | T | F |
| 4. Although cures are rarely documented, relapses can be prevented. | T | F |
| 5. Families with schizophrenic and bipolar members must get back to living their own lives. | T | F |
| 6. It has been shown to be necessary that a chronically mentally ill individual not live in the family home. | T | F |
| 7. A disturbed childhood is always associated with bipolar or schizophrenic disorders. | T | F |
| 8. A person with a schizophrenic or bipolar disorder is responsible for the care and control of the illness. | T | F |
| 9. People from families with a genetically determined weakness which runs in their family may be at increased risk of getting schizophrenia or a bipolar disorder. | T | F |
| 10. Although complete recovery is possible, most people with a schizophrenic disorder have some difficulties and may suffer relapses. | T | F |
| 11. The exact cause of schizophrenia is unestablished, although recent discoveries suggest an imbalance in the brain chemistry. | T | F |
| 12. It is okay for a person with a chronic mental illness to use alcoholic beverages like anyone else might. | T | F |

- | | | |
|--|---|---|
| 13. Both schizophrenic and bipolar illnesses result from "bad parenting." | T | F |
| 14. The treatment of choice for a bipolar or schizophrenic disorder is psychotherapy. | T | F |
| 15. To be most effective, lithium must reach a certain level in the blood called the "therapeutic level." | T | F |
| 16. The mentally ill family member has both rights and responsibilities while in the patient role. | T | F |
| 17. There is little overlap in the symptoms of bipolar and schizophrenic disorders. | T | F |
| 18. Common side effects of antipsychotic medications are sedation, constipation, and weight gain. | T | F |
| 19. The best way to deal with a chronically mentally ill person who has delusions (false fixed beliefs, e.g., "I am being followed by the FBI.") is to try to talk them out of the belief. | T | F |
| 20. There is no hope that things will ever get better once a family member receives a diagnosis of schizophrenia or bipolar disorder. | T | F |

APPENDIX F

THE LIFE EXPERIENCES SURVEY

NAME _____ DATE _____

The Life Experiences Survey

DIRECTIONS: Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. Please check those events which you have experienced in the recent past and indicate the time period during which you have experienced each event. Be sure that all check marks are directly across from the items they correspond to.

Also, for each item checked below, please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred. That is, indicate the type and extent of impact that the event had. A rating of -3 would indicate an extremely negative impact. A rating of 0 suggests no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.

Section 1

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
1. Marriage			-3	-2	-1	0	+1	+2	+3
2. Detention in jail or comparable institution			-3	-2	-1	0	+1	+2	+3
3. Death of spouse			-3	-2	-1	0	+1	+2	+3
4. Major change in sleeping habits (much more or much less sleep)			-3	-2	-1	0	+1	+2	+3
5. Death of close family member:									
a. mother			-3	-2	-1	0	+1	+2	+3
b. father			-3	-2	-1	0	+1	+2	+3
c. brother			-3	-2	-1	0	+1	+2	+3
d. sister			-3	-2	-1	0	+1	+2	+3
e. grandmother			-3	-2	-1	0	+1	+2	+3
f. grandfather			-3	-2	-1	0	+1	+2	+3
g. other (specify)			-3	-2	-1	0	+1	+2	+3
6. Major change in eating habits (much more or much less food intake)			-3	-2	-1	0	+1	+2	+3
7. Foreclosure on mortgage or loan			-3	-2	-1	0	+1	+2	+3
8. Death of close friend			-3	-2	-1	0	+1	+2	+3
9. Outstanding personal achievement			-3	-2	-1	0	+1	+2	+3
10. Minor law violations (traffic tickets, disturbing the peace, etc.)			-3	-2	-1	0	+1	+2	+3
11. Male: Wife/girlfriend's pregnancy			-3	-2	-1	0	+1	+2	+3
12. Female: Pregnancy			-3	-2	-1	0	+1	+2	+3

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
13. Changed work situation (different work responsibility, major change in working conditions, working hours, etc.)			-3	-2	-1	0	+1	+2	+3
14. New job			-3	-2	-1	0	+1	+2	+3
15. Serious illness or injury of close family member:									
a. father			-3	-2	-1	0	+1	+2	+3
b. mother			-3	-2	-1	0	+1	+2	+3
c. sister			-3	-2	-1	0	+1	+2	+3
d. brother			-3	-2	-1	0	+1	+2	+3
e. grandfather			-3	-2	-1	0	+1	+2	+3
f. grandmother			-3	-2	-1	0	+1	+2	+3
g. spouse			-3	-2	-1	0	+1	+2	+3
h. other (specify)			-3	-2	-1	0	+1	+2	+3
16. Sexual difficulties			-3	-2	-1	0	+1	+2	+3
17. Trouble with employer (in danger of losing job, being suspended, demoted, etc.)			-3	-2	-1	0	+1	+2	+3
18. Trouble with in-laws			-3	-2	-1	0	+1	+2	+3
19. Major change in financial status (a lot better off or a lot worse off)			-3	-2	-1	0	+1	+2	+3
20. Major change in closeness of family members (increased or decreased closeness)			-3	-2	-1	0	+1	+2	+3
21. Gaining a new family member (through birth, adoption, family member moving in, etc.)			-3	-2	-1	0	+1	+2	+3
22. Change of residence			-3	-2	-1	0	+1	+2	+3
23. Marital separation from mate (due to conflict)			-3	-2	-1	0	+1	+2	+3
24. Major change in church activities (increased or decreased attendance)			-3	-2	-1	0	+1	+2	+3
25. Marital reconciliation with mate			-3	-2	-1	0	+1	+2	+3
26. Major change in number of arguments with spouse (a lot more or a lot less arguments)			-3	-2	-1	0	+1	+2	+3
27. <i>Married male</i> : Change in wife's work outside the home (beginning work, ceasing work, changing to a new job, etc.)			-3	-2	-1	0	+1	+2	+3

	0 to 6 mo	7 mo to 1 yr	extremely negative	moderately negative	somewhat negative	no impact	slightly positive	moderately positive	extremely positive
28. <i>Married female</i> : Change in husband's work (loss of job, beginning new job, retirement, etc.)			-3	-2	-1	0	+1	+2	+3
29. Major change in usual type and/or amount of recreation			-3	-2	-1	0	+1	+2	+3
30. Borrowing more than \$10,000 (buying home, business, etc.)			-3	-2	-1	0	+1	+2	+3
31. Borrowing less than \$10,000 (buying car, TV, getting school loan, etc.)			-3	-2	-1	0	+1	+2	+3
32. Being fired from job			-3	-2	-1	0	+1	+2	+3
33. <i>Male</i> : Wife/girlfriend having abortion			-3	-2	-1	0	+1	+2	+3
34. <i>Female</i> : Having abortion			-3	-2	-1	0	+1	+2	+3
35. Major personal illness or injury			-3	-2	-1	0	+1	+2	+3
36. Major change in social activities, e.g., parties, movies, visiting (increased or decreased participation)			-3	-2	-1	0	+1	+2	+3
37. Major change in living conditions of family (building new home, remodeling, deterioration of home, neighborhood, etc.)			-3	-2	-1	0	+1	+2	+3
38. Divorce			-3	-2	-1	0	+1	+2	+3
39. Serious injury or illness of close friend			-3	-2	-1	0	+1	+2	+3
40. Retirement from work			-3	-2	-1	0	+1	+2	+3
41. Son or daughter leaving home (due to marriage, college, etc.)			-3	-2	-1	0	+1	+2	+3
42. Ending of formal schooling			-3	-2	-1	0	+1	+2	+3
43. Separation from spouse (due to work, travel, etc.)			-3	-2	-1	0	+1	+2	+3
44. Engagement			-3	-2	-1	0	+1	+2	+3
45. Breaking up with boyfriend/girlfriend			-3	-2	-1	0	+1	+2	+3
46. Leaving home for the first time			-3	-2	-1	0	+1	+2	+3
47. Reconciliation with boyfriend/girlfriend			-3	-2	-1	0	+1	+2	+3
<i>Other recent experiences which have had an impact on your life. List and rate.</i>									
48. _____			-3	-2	-1	0	+1	+2	+3
49. _____			-3	-2	-1	0	+1	+2	+3
50. _____			-3	-2	-1	0	+1	+2	+3

APPENDIX G

INDIVIDUAL INTERVIEWS CONDUCTED AT FOLLOW-UP

INDIVIDUAL INTERVIEWS CONDUCTED AT FOLLOW-UP

Each participant in the treatment and control groups was interviewed individually at the four-week follow-up assessment. The following are selected responses to some of the questions asked in the interview. These subjective comments are included to provide information about the individual's experience in dealing with a chronically mentally ill family member which cannot be easily identified using the formal assessment instruments.

1. When do you first remember finding out that your family member was afflicted with a chronic mental illness?

Control Group

"My first impression is when (name) was about seven years old. The diagnosis was given in 1986."

"My first idea of this came years before the diagnosis was actually made. I was unwilling to look at the possibility of having two handicapped children."

"I first suspected something when he was just a baby. Then in high school he wasn't able to make friends very easily. Finally he found another religion which seemed kind of strange. He was diagnosed a few years ago."

"When he was little he was listless and wouldn't say anything, like he was depressed. He was tested in (state) and diagnosed as having a thyroid problem. He later developed funny movements in his hands due to a funny 'sensation' he felt. A little while later (name) was diagnosed with a chronic mental illness."

"We really became conscious of it during his teenage years when he and his father didn't get along very well--they were painful years. He got involved in the (name) religion and they later stated that he was on the verge of a nervous breakdown, having problems concentrating and using alot of hashish."

Treatment Group

"I never had an idea that my son had a mental illness problem 'til he told us about people taking pictures of him and people on the radio giving him messages. This happened about four years ago."

"We found out when he told us that there was a plot against him because of some girl. Later he told us about lots of plots against him."

"Four years ago when she had a nervous breakdown while traveling in the west, schizophrenia was what they called it later."

"We first noticed when she had a psychotic break in 1985. Before that, we knew she was stressed and losing a lot of weight."

"We had some idea before she broke down completely in 1973. (name) said she had funny thoughts--thought broadcasting I think they call it."

"I had an idea there was something wrong with my son back when he was a child, he cut up his clothes once."

"Around age 15, his attention seemed to be flighty. He'd drift off while talking and respond to extraneous aspects of the environment."

2. Difficult events are experienced differently by different people. Some feel it more intensely, some less so. On a scale of 1-10, with one being "not difficult at all" and ten being "extremely difficult," how would you rate your experience of dealing with your family member's illness?

Control Group

"Seven, I've always been able to find a way to solve a problem before."

"A constant level of seven or eight, when he's not doing well it's a definite 10."

"Ten, her illness has been the most stressful thing I've ever experienced."

"Ten, this has no finality, it's worse than anything due to the hopelessness."

"This has had a great effect on my life, like living a nightmare. I feel everything."

"About an 11."

Treatment Group

"Before being hospitalized it was hell, a 10. Since lithium, we've had a return to normal around the house most of the time."

"Negative to some extent, positive when I found some help. There hasn't been anything as stressful though."

"Before gaining any knowledge, a definite 10. After learning a lot this has been reduced to a three."

"Ten!"

"Ten, this is the roughest thing ever in my life. It has had the worst effect on me."

"At times it's been very high, an eight or nine. Since the education group this has gone down to a five or six."

"The illness itself has been a 10. The effect has lessened due to the support of my church and the education group."

"Absolutely a 10, this has totally changed our whole life."

"Nine or ten for myself and the rest of the family. This is probably the most stressful thing we ever had to deal with."

"When she ran away it got up to 11. This has nearly ruined our marriage, definitely the most stressful thing in my life."

3. Some people blame themselves for the existence of chronic mental illness in their family. Has this been part of your experience?

Control Group

"I did blame myself. I was hard on the kids, and at times I think I felt somewhat responsible."

"I didn't blame myself because I felt I had always been there for her. I am angry at my husband's family because they didn't know this could be passed on through the generations."

"(Name) tried to make me feel guilty all the time. . . . Sometimes I do blame myself."

"I used to, thought that maybe I wasn't firm enough and should have put my foot down more. I don't do that anymore."

"I do feel partly to blame and . . . wish I could have been a more perfect father. I take blame, a bad reaction to a bad situation."

"I never blamed myself. "We've never hid the fact that (name) had a problem."

Treatment Group

"Before the diagnosis we felt very guilty and blamed ourselves. After getting the diagnosis and information, this took away the blame because of the biological explanation."

"At the beginning I did feel very guilty. My guilt didn't last long--I tried my best."

"Yes I certainly did feel guilty immediately after the bad times. Not now though, the time perspective and knowledge about the illness have changed that. Sometimes doing too much can be as bad as doing too little."

"In the past I certainly did, I don't know why. The guilt has subsided. If I did anything wrong, I did the best I could."

"I'm embarrassed to say that I didn't feel this way."

"For a long time prior to the diagnosis, we asked ourselves what we had done wrong. We felt guilty and blamed ourselves."

"I felt that way in the past. Now I understand that I had no control over the illness. Therefore, I don't feel guilty any more."

4. Sometimes even in the most difficult situations people find something good occurs. Has this happened to you? If so, in what ways?

Control Group

"I've been real pleased with our family's response of pulling together. In a way, it's been confirming for our family."

"My wife and I work together more closely although we can disagree about how to deal with things. It has brought us closer together for the most part."

"Not yet it hasn't."

"I can't see anything good."

"Nothing good has happened for (name) or us."

"My husband and I have learned to lean on each other and to be good friends. We may be more dependent on each other than is healthy."

"Nothing good has happened in my relationship with my son. From a philosophical point, things in my life are beyond our control sometimes. I have become more accepting in social and political things."

Treatment Group

"Good communication has resulted. (Name) is better able to handle what's happening with her. There has been a positive impact across the board. My wife and I have rallied together."

"A lot of things have improved. Our marriage is closer. There are no longer barriers between my daughter and myself. But one son has withdrawn from the family a bit."

"A tremendous amount, I think I got much closer to my son than ever before, and closer to my husband too."

"I feel stronger and, as a family, we are more united than ever."

"Nothing really good ever came of it."

"Something good has happened, I feel fortunate to have a husband to support me through this and be understanding."

"I've gotten to be a lot closer to my son. I think our relationship now is better than it has ever been."

"Absolutely, I grew as a person and learned that I'm much more compassionate and stronger than I ever imagined. Our marriage has grown."

"Yes, I have become more patient. Some things just don't come easily."

"The rest of us are much closer, more patient and understanding of each other."

"Nothing good on my part."

5. Has your family member's mental illness affected your marital or family relationships?

Control Group

"It goes back and forth, sometimes the marriage is good, other times not so good. The illness has a lot to do with it."

"Oh yes indeed. I gave my husband the option of moving out with her or having her get some help. The family has suffered because another member of the family left home due to the illness."

"It may have, we don't have the desire to do anything anymore. Our other son withdrew more into himself."

"Yes, I definitely think so. Our marriage has had lots of rocky moments. In our family the older children didn't understand. They would get angry with (name). There was a terrible strain between my older daughter and me."

"The illness put our marriage under strain. It was difficult for my wife to see my anger. My temper was 99.9% of the problem. It put me in a bad state of mind."

Treatment Group

"My wife and I have grown closer, nothing negative has happened to our marriage. However, our son has suffered a negative impact. He doesn't want to believe that an illness is responsible for his sister's behavior. He hates (name) for the way she has treated us."

"We have a better marriage. Until last week, (brother's name) was very angry with (ill member's name). He was getting teased alot at school because of his sister's behavior."

"Yes, I think the family has suffered some negative things because we used to be extremely close. Now we aren't so close. We go with what's best for (name). Certain things that we might usually do don't get done because (name) is sick."

"There is more tension in the family, with misunderstandings about the best way to treat the problem."

"I think both positive and negative. At first it was negative, we were trying to make the situation change. We'd be going in different directions, accusing each other and placing blame. In the positive light, we are now both on the same wave length. We are supportive of each other."

"At one point our marriage almost fell apart. Initially we blamed each other. We didn't like ourselves or each other. His psychotic episode was tearing us to pieces. We couldn't have friends over. Initially the family really suffered too. Now we have a better relationship than it might ever have been. We learned lots of compassion."

"It got in our way due to the financial pressures since we were retired. We were really shook up initially."

"Yes in the sense that there was tremendous tension all the time. . . . The illness had us zeroing in on the crisis and missing any fun we might have together."

"Fortunately for me, my wife is a very understanding woman. The illness certainly put strain in our marriage several times. It required lots of adjustment on the family too."

6. Have you had any physical health problems since the time the illness was first identified in the family member?

Control Group

"Yes, I had a heart attack in (date). I had no symptoms until coming to Tucson when our son returned on the scene. Symptoms returned after two months of his living with us. I suffer angina when walking or quietly talking with him at the table."

"My arthritis has flared up with my son's recent stay at home . . . I compulsively eat, which is definitely related to the stress and strain."

"Oh yeah, I have an irritable colon which I know is due to the stress."

"I get tired much more easily. The illness drains you emotionally and it can devastate you physically."

"Sleeplessness, tiredness, and weight loss."

"I've had to slow down due to high blood pressure."

"I think it's probably been one of the determinants of my unhealthy weight gain."

Treatment Group

"My physical health has been okay. At times I cry and get emotional very easily."

"It probably has, I haven't slept good in years . . . I've experienced stress, tension, feel irritable, and defensive."

"Definitely, I feel that I have reached the closest point to total wipeout in many years. It has aged me at least 10 years. The mental strain has been so great for so many years that I still haven't recovered."

"Yes, I have psoriasis which started with his illness."

"Yes, I feel nervous and an inability to deal with the stress. I'm exhausted at night. There is a great loss of energy, it drains you physically. It's taken a toll."

7. Of all the things you have had to cope with regarding this illness, what has been the most difficult?

Control Group

"I hate to see her wasting her life, it makes me sick. She threw it all away."

"My anxiety about what's down the road."

"Fear and worry about the future, feeling the hopelessness that she'll never find a real life."

"The fact that he won't get treatment and is not in the system."

"The frustration that no matter how hard I try, I can't solve this problem."

"The embarrassment of knowing that all your neighbors know and are keeping an eye out."

Treatment Group

"Just trying to understand it, I still don't know why . . . still get nervous . . . walking on eggshells."

". . . my son's not understanding the illness. He felt like such a failure. I want to save him the embarrassment."

"Wondering what's going to happen to him, and if he will always be dependent."

"When he's in his lows and he comes out, he'll ask 'Why am I like this?', wanting to lash out. I don't know what to tell him."

"The sadness of seeing someone you love hurting and not being able to do anything about it. I can't stand to see him suffer."

"Trying to explain when he's doing something to work against himself. His inability to comprehend and consider make it difficult to penetrate his thought process."

". . . his outbursts and unreasonable anger. I don't know quite what to do. I am torn between his sickness and my duty as a parent."

"For two years I would go to bed with the fear that I wouldn't wake up, afraid that he'd stab us in our sleep."

8. Has participating in the family education group been useful in helping you to deal with your family member's illness? If yes, in what ways?

Treatment Group

"Absolutely, psychologically a tremendous help . . . an absolute must that programs like this be created across the country. Hearing how others are coping made it easier."

"Yes, the group was very supportive. It helped me understand that I don't need to feel guilty. . . . It helped us stick together and try to fight this."

"The group enlightened me about how serious these disorders are, and straightened out my knowledge about the illnesses."

"The group was definitely a help. Talking with different people who had different experiences and successes made it easier. I needed to hear helpful things because I was so full of pain."

"The group was helpful in opening our eyes to another world. We didn't realize what our son was afflicted with. The group helped our family and marriage because we now understand our situation better."

"The group was very helpful. I learned things I didn't know, like how to manage (name) when he starts getting unmanageable."

"I sure did, we now understand the problem better and know how to cope with the situation. We can see the symptoms, it's easier for us to visualize what's going on in her mind."

"It was helpful to hear the opinions of others . . . to learn the part about the legal system and how it works with commitment procedures."

"The information was very helpful. At times I would get depressed thinking that (name) would get as bad as some of the other children. One of the best things from the class was that we identified the list of behaviors that are signs of her getting sick."

"Before the group we felt like we were the only people in the whole world with a kid with a bipolar disorder. The group was very helpful, giving us information and being supportive when we really needed it."

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