INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 9207055

The Maimonides Family Support Demonstration Project, 1986–1989: A study to evaluate a two-year course of psycho-educational multi-family treatment

Carney, John A., D.S.W.

City University of New York, 1991

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

H

THE MAIMONIDES FAMILY SUPPORT DEMONSTRATION PROJECT 1986 - 1989: A STUDY TO EVALUATE A TWO-YEAR COURSE OF PSYCHO-EDUCATIONAL MULTI-FAMILY TREATMENT

by

JOHN A. CARNEY

A dissertation submitted to the Graduate Faculty
in Social Welfare in partial fulfillment of the
requirements for the degree of Doctor of Social
Welfare, the City University of New York.

1991

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

9/5/91
Date

Chair of Examining Committee
for Rebecca Donovan

9/5/91
Date

Executive Officer

Rebecca Donovan

Reva F. Holtzman

Mildred Mailick

Supervisory Committee

The City University of New York

ABSTRACT

THE MAIMONIDES FAMILY SUPPORT DEMONSTRATION PROJECT 1986 - 1989: A STUDY TO EVALUATE A TWO-YEAR COURSE OF PSYCHO-EDUCATIONAL MULTI-FAMILY TREATMENT

by

JOHN A.CARNEY

Adviser: Professor Rebecca Donovan

This three-year long controlled study successfully demonstrates the effectiveness of a tri-partite treatment intervention comprised of psycho-educational multi-family treatment, lowest-dose prescription of neuroleptic medications and clinical case management with individuals who have long-term schizophrenia.

The study's statistically significant findings indicate that, during a two-year course of treatment, experimental cohort patients' symptoms were ameliorated, their rates of re-hospitalization reduced, their community tenure extended and their rehabilitation promoted. Further, experimental cohort family members' emotional reactivity to their ill relatives was substantially reduced, their appreciation of their ill relatives' efforts to overcome the adverse impact of their illnesses increased and their own social functioning greatly improved. These findings coincide with those of the major

psycho-educational family studies carried out in this country over the last several years.

Other findings of particular interest include the following:

1.- The highly individualized course of illness and recovery experienced by each patient subject, as documented in comprehensive individual case studies.

2.- The failure of both the Community Mental Health Center where the study was undertaken and New York City's mental health system to foster the rehabilitation of the study's patient subjects, as documented in a thorough cost-benefit analysis of all treatments received by them.

3.- The interactive and synergistic nature of the three treatments which, in combination, comprised the study's treatment intervention.

4.- The cumulative impact of the three-part treatment, with its benefits more readily apparent during the second year of treatment.

5.- The interactive nature of the phenomenon popularly known as "expressed emotion", with family anxiety and patient symptomatology found to be mutually exacerbative.

To facilitate understanding by readers, each treatment intervention is fully described as is the treatment context, i.e., the organizational characteristics of the community mental health center where the study was carried out.

ACKNOWLEDGEMENTS

The author wishes to dedicate this dissertation to his wife, Diane Cuff-Carney, for her unwavering support during the seven years it required to bring this work to completion.

The author also wishes to acknowledge the following collaborators and colleagues whose help during the same period of time proved invaluable:

- Marian Schaal, C.S.W., the author's responsible and totally reliable PEMFT co-therapist;

- Moise Shyster, M.D., Jaweed Husain, M.D., Sudharam Idupuganti, M.D., and David Marsh, M.D., the study's psychiatrists;

- Joan Raphael, C.S.W., Myriam Sadowski, R.N., Estelle Hammond, R.N., the study's raters;

- Max Heinrich, Ph.D., Director of Maimonides' Partial Hospital Service, for his assistance in developing the dissertation proposal;

- Claude Dekeyser, C.S.W., Carol Spinella, R.N., Richard, Erle, Ph.D., and the staff of the Partial Hospitalization Service;

- Marvin Lipkowitz, M.D., Director, Maimonides Department of Psychiatry, without whose support and approval the study could not have been conducted;

- Mark Tarail, D.S.W., former Director, Maimonides Community Mental Health Center, who encouraged the author to enter doctoral studies many years ago;

- Ellen Lukens, M.S., Director of Research for William McFarlane's New York State-wide Family Support Demonstration Project, for her generous technical support at the study's initiation and conclusion;

- Rebecca Donovan, D.S.W., the author's dissertation advisor, whose quiet support and pragmatic advice boosted the author's morale and belief in the study;

- Eleanor Bromberg, D.S.W., and Rose Starr, D.S.W., Associate Professors at the Hunter College School of Social Work, whose encouragement considerably shortened the time it took to complete this work;

- Anita Pernell-Arnold. M.S.S.W., New York State Office of Mental Health consultant to the New York City Intensive Case Management Program, for her practical wisdom.

Special thanks must also go to the dozen families, including all experimental and control group members, who participated in the study from its beginning to end, and to Ms. Ann Marie Gigante, who typed every word of every paper written by the author during his doctoral studies.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

A.- The Maimonides and McFarlane Studies:

The Maimonides Family Support Demonstration Project (MFSDP) was prompted by two principal concerns: the tremendous burden of families, one or more of whose members has been diagnosed as having chronic schizophrenia, and the corresponding need to introduce a new treatment technology into Maimonides Department of Psychiatry to address this problem.

The former is well documented (Goldman, 1982; Hatfield, 1978), is a crucial issue for family advocates (Hatfield, 1987; Hatfield, Lefley, 1987), and had been witnessed by this writer and my Project co-therapist for the many years we had worked at Maimonides. During our lengthy careers there, no program had been developed to help these families. A demonstration project appeared to represent a sound strategy clinically (Bachrach, 1980) and politically (Brager, Holloway, 1978) to institute a needed service.

As finally implemented, the MFSDP was distinguished by the following key characteristics:

1st - its focus on the individual course of treatment of its patient participants;

2nd - its utilization of a three-part treatment intervention with the Project's experimental group patients, comprised of Psychoeducational Multi-Family Treatment(PEMFT), Clinical Case Management (CCM) and neuroleptic medications;

3rd - the development of a social support network for experimental group family member participants; and

4th - its replication, at least in part, of William McFarlane's New York State Family Support Demonstration Project (McFarlane, 1984).

The first two are unique to our study. The third is a goal shared by the MFSDP and McFarlane's project. The latter was carried out from 1985 through 1989 and involved almost two hundred patients diagnosed as having chronic schizophrenia and their families at five State psychiatric centers and one New York City municipal hospital. An initial report of McFarlane's findings was recently issued and will be discussed in succeeding chapters of this dissertation (McFarlane, et al, 1991).

The Maimonides study, a more modest endeavor, took three years to complete, from December, 1986, through December, 1989. It involved sixteen patients diagnosed with chronic schizophrenia and their families, divided into experimental and control groups. It was conducted for the most part in a community mental health center, one of its singular aspects, attached to a New York City private voluntary hospital. As a replication, it shares with McFarlane's study several common elements. First, both have the same basic aim, viz., to test the efficacy of PEMFT in reducing families' social isolation and favorably affecting the course of illness of individuals diagnosed with chronic schizophrenia.

Second, both also incorporate certain suppositions regarding individuals with chronic schizophrenia and their vulnerability to stress. One is that such individuals have an attention arousal dysfunction, i.e., that they can be cognitively overwhelmed by environmental stimuli (Anderson, et al, 1980). A complementary notion is that such individuals are particularly sensitive to environmental stressors, which increases their susceptibility to clinical relapse and rehospitalization (Zubin, Spring, 1977).

In both studies, the first year of recovery from relapse and hospitalization is considered the period of greatest vulnerability to further relapse for individuals with chronic schizophrenia (Anderson, et al, 1986). During this time, the single greatest potential source of environmental stress for them is thought to be their families' high expressed emotion (EE), conceptualized as hostile, critical and derogatory comments directed at them by family members and for which a causal link to relapse has been posited (Vaughn, Leff, 1976; Leff, Vaughn, 1981). The more benign or stress-free the family home environment, where individuals with chronic schizophrenia can be expected to spend much of that first year, their corresponding lower risk of relapse.

PEMFT has been designed in both studies to lower family EE and reduce environmental stressors and the risk of relapse for individuals with schizophrenia. As a family-focused treatment intervention, it begins with the bringing together of several families, each of which has at least one member who is severely and persistently mentally ill, and seeks to instruct them regarding the biological nature and possible course of their relatives' illnesses. Once possessed of such information and of one another's mutual support, most families are gradually able to discard notions of self-blame and to moderate feelings of guilt and acts of self-recrimination (McFarlane, 1983).

PEMFT's ultimate aim is to afford families a sense of empowerment and underscore their ability to manage and ameliorate the impact of severe and long-term mental illness on all family members, including those who are ill. Thus, PEMFT sessions serve as a forum for family members to share their trials and tribulations and their successes, and to receive feedback and support from the other participants. They are also occasions for PEMFT leaders or therapists to teach problem-solving and communication skills to enhance families' coping abilities.

In both studies, the teaching, which is more experiential than didactic, and the PEMFT itself are informed by values and practice principles which the therapists openly share with PEMFT participants from the outset. First, it is the responsibility of mental health professionals and their agencies to help to relieve families of the burden of caring for their ill relatives, which previously has been theirs alone. Second, families are not to be regarded as obstructive to their ill relatives' treatment but must be enlisted as allies in the treatment process by the treating professionals. Further, professionals are obliged to foster such alliances by informing families that they did not cause an illness which has essentially biological origins. They must seek to alleviate families' sense of guilt and obviate any inclination on their part to blame families for the professionals' own frustrations in treating a patient population which often proves treatment resistant and refractory.

To the contrary, families are to be informed that they can have a profound and beneficial effect on the course of their relatives' illnesses. Mental health practitioners must explain to families the concept of expressed emotion and the function of problem-solving and other coping skills in maintaining family EE at low, benign levels. Finally, professionals are to adopt a stance of hopefulness in their work with families and their ill relatives, providing them with the latest findings which indicate that schizophrenia, for the great majority of those who suffer from it, does not have a deteriorative course (Harding, Strauss, 1985; Bleuler, 1978). In sum, the Maimonides and McFarlane studies place primary responsibility for the success or failure of PEMFT and the other biopsychosocial interventions utilized in each Project squarely on the professionals who undertook to carry them out.

Other elements of similarity in the intent and design of the two studies include the following:

- family members and their ill relatives were provided un-qualified acceptance and support by therapists in each Project;
- the study populations were comprised of individuals who met DSM III criteria for chronic schizophrenia (American Psychiatric Association, 1980) and their families;

- interrupted time series designs were used to assess patient subjects' symptomatology at six month intervals and their family members' rejection of and enmeshment with them at twelve month intervals over the two year course of each study.
- the ultimate aim of treatment was the restoration to effective instrumental and social functioning of all PEMFT patient and family member participants;
- finally, the outcome data would be so compelling as to promote the speedy adoption of PEMFT and accompanying interventions as a treatment of choice with this population.

B.- <u>Individual vs. Family Focus</u>:

There are several key differences between the studies, stemming in large part from the limited resources available for the Maimonides' study, the organizational context in which each study was carried out and the organizational change aims pertinent to each. These contextual factors greatly affected the MFSDP's hypotheses, to be discussed in the following section of this Introduction. Similarly impacted were our study design and treatment focus, which together constitute the essential difference between the two studies.

McFarlane's study, with its `N' of 185 patients and their families, investigated the outcome data of two comparison groups, viz., one whose members participated in PEMFT versus one whose members received psycho-educational <u>single</u> family therapy (PESFT). His foremost "scientific" aim was to isolate the influence of the social support presumably inherent in PEMFT and determine its influence in effecting favorable treatment outcomes (McFarlane, et al, 1991).

Our study population was divided into experimental and control groups, comprised respectively of those study subjects who received our three-part treatment intervention, which included PEMFT, and those who received "regular" Maimonides CMHC aftercare treatment.

Our aim was to demonstrate the superiority of our three-part treatment to the treatment that CMHC patients with chronic schizophrenia customarily received subsequent to a psychiatric hospitalization. Since we had no funding to carry out the study, our study cohorts and the Project's staff were necessarily small in number. The latter was comprised of this writer and another social worker, who shared all clinical responsibilities, and four staff psychiatrists, three nurse clinicians and an additional social worker, who carried out medication management and data collection tasks. We all served the Project on a part-time basis, from two to ten hours weekly, with little diminution in our regular workloads.

Out of simple expediency, our study subjects were limited to sixteen individuals with chronic schizophrenia and their families, divided into the experimental and control cohorts. Our low `N' essentially qualified the study as "quasi-experimental" rather than experimental in design. To offset our low `N' and enhance the validity of our findings, we employed non-parametric statistical measures in our data analysis, specifically, the Mann-Whitney U Test (Pfeiffer, Olsen, 1985). Further, we attempted to turn the low `N' to our advantage and track the course of treatment and treatment outcomes of each of our study subjects via individual case studies. In sum, we added an individual focus to the study while maintaining its family focus.

Chapter VI contains the case studies of the six experimental and six control patients who eventually completed the two-year study period. Each of the six had a distinct course of illness and experienced a singular treatment outcome. Weiss argues that in large clinical studies individual differences in treatment outcomes and course of illness are often considered anomalous and tend to "wash out" or disappear from view (Weiss, 1989). He supports the utilization of individual case studies to examine the heterogeneity of response of a group of individuals to the same treatment intervention.

Mendel, in Treating Schizophrenia (1989), which is based on his clinical experience with almost five hundred patients followed by him over much of his long career, contends that a practitioner cannot appreciate what works and what does not with individual patients until he/she follows each for a given period of time. This serves to put the focus of both treatment and study on the individual patient as well as on the relationship between patient and practitioner (Goering, Stylianos, 1988).

Similarly to McFarlane's and the other renowned psycho-educational family studies (Anderson et al, 1986; Falloon, et al, 1984; Leff, et al, 1982), my co-therapist and I had initially adopted a family-focus and paid little attention to the individual treatment relationships we would necessarily have to have with our experimental patients. From the Project's outset, we had been clear that we would work closely with our experimental family subjects and enlist them as allies in their ill relatives' treatment. It had not been so readily apparent what the nature and the importance of our relationships with those ill relatives would be nor how crucial a function their individual treatment would play.

In the original study proposal, we assumed that PEMFT, together with medication, was to be the principal treatment intervention. Individual treatment, which included case management, was described as an "ancillary treatment", much like in the psychoeducational studies just referred to. However, no sooner did we begin attempting to recruit study subjects than the relationships we would have with them became critically important. Both experimental and control patients, whom we first approached while they were hospitalized in one of the agency's in-patient units, wanted to trust us and be reassured that we would stick out the Project's two year course with them. For the most part, they had not had good experiences with mental health professionals in the past and were realistically skeptical. We also realized that without their involvement and cooperation there would be no study.

In response, we adopted a hopeful, supportive and straightforward stance with them. Employing a disease model concept, we informed that they were suffering from a persistent, long-term illness called schizophrenia, the first professionals to ever do so unequivocally. We then described to the experimental patients the treatment regimen we had to offer them, viz., medication, PEMFT, clinical case management and day treatment, the last of which was optional. We further advised them that this regimen, if adhered to, could help them avoid relapse and rehospitalization and enable them to regain improved and possibly normative functioning. We utilized a different yet apt approach with the control patients, to be described in a later Chapter.

In effect, we outlined to the experimental patients and their families a psychiatric rehabilitation program modified to fit the Project's capacities and organizational context (c.f. Anthony, 1979), and grounded in "state of the art" knowledge about schizophrenia, including the several recently published longitudinal studies which challenged the conceptualization of the illness as necessarily deteriorative (Bleuler, 1978; Harding, 1985). Once we began to successfully engage them, we decided to capitalize on their involvement and interest. We cast ourselves in the roles of "therapists as case managers" espoused by Lamb (1980, 1981), which obliges the mental health practitioner to be supportive, educative about a patient's illness, and responsive to the practical problems and needs presented by the patient.

While this treatment model has disadvantages as well as advantages, to be discussed at greater length in Chapter II, it fit our needs organizationally. Our study design called for the Project to be carried out in accordance with agency structure and norms. Since the Project was administratively located in the agency's Adult Outpatient Service (AOS), my co-therapist and I were _ipso facto_ regarded as "case-carrying therapists." Our interpretation of the therapist role was within our discretion, so long as it did not overtly contradict established agency clinical practice.

Much like other AOS therapists, we saw our Project patients at least once weekly, arranged medication evaluations for them by the Project psychiatrist, and followed the progress of those who entered the Day Hospital or Continuing Treatment programs. As Project therapists, however, we also promptly called our patients if they failed appointments, made home visits when a patient's mental status required it, helped them secure social welfare entitlements, and made ourselves available to them and their families for emergency contacts twenty-four hours a day, seven days a week.

We quickly came to appreciate the importance of these individual sessions for the patients and their pursuit of individual goals and for us in monitoring their progress. It also became apparent that the individual treatment, i.e., the clinical case management, and the PEMFT interacted with one another and seemed to have a mutually reinforcing effect. One of the three patients who regularly attended PEMFT sessions spoke of having two forums, each with different respondents, where he could discuss his problems and successes and obtain feedback. For those patients who did not utilize the PEMFT, their families' regular attendance appeared to concretely signify their continued interest in the patients' well-being.

In sum, we came to regard PEMFT as only one element of a three-part treatment intervention which, along with medication and individual clinical case management, constituted a psychiatric rehabilitation strategy. Ultimately, our study is not so much an evaluation of a single treatment intervention as of a rehabilitative model for individuals with severe and persistent mental illness. A true measure of the Project's success is the extent to which individual patients were rehabilitated, i.e., made progress towards the resumption of normative social and instrumental functioning, by the time of its conclusion. This will be discussed at length in Chapter IV, when all Project outcome data are presented and evaluated.

C.- Aims and Hypotheses:

The MFSDP's ultimate goal was to have our tri-partite treatment technology adopted and utilized by our agency. Toward this end, we trusted that the study would amply demonstrate the superiority of PEMFT, coupled with medication management and clinical case management, to more traditional treatment interventions with individuals with chronic schizophrenia. Nonetheless, our recognition of the study's limitations and of our positions as line workers within the agency obliged us to decide on the following aims:

- First, for us to become experts in PEMFT and psychiatric rehabilitation and be recognized as such by our clinical colleagues and administrative superiors.

From our reading of Brager and Holloway (1978), we knew that to "bring change from below" and introduce a new treatment technology into the agency we had to become acknowledged experts in working with severely and persistently mentally ill individuals and their families. In other words, only if we were credible could we gain the support to attempt the study, report our findings to a willing audience and push for the changes that the findings might indicate.

- Second, to accordingly disseminate information about our treatment intervention, its underlying values and philosophy and its technology and techniques to our clinician colleagues via in-service training sessions with individual service units, reports to staff at agency-wide staff meetings and "grand rounds" presentations.

Actually, in-service training sessions and staff reports were undertaken by us well before the study's starting date in order to recruit staff volunteers and to enlist their help in identifying study subjects.

- Third, to improve the status of social workers within the agency.

For several years prior, social workers, who constituted the single largest professional discipline in the Adult Outpatient Service (AOS), had been consistently scapegoated by the agency's director for the failure of the AOS to meet ever-increasing productivity goals. Line social workers also formed the single largest group of unionized professionals within the agency and were invariably subjected during bi-annual contract negotiations between union and management to charges denigrating their work performance.

Consequently, Department of Psychiatry social workers considered themselves to be powerless. It was our hope that the successful completion by two social workers of the first clinical research ever attempted in the agency would boost our colleagues' morale and collective professional pride and reverse the process initiated by agency administrators to belittle social workers and their contributions to the agency.

- Fourth, to accumulate sufficient data to determine whether experimental study subjects were helped or not by our three-part intervention as regarded patients' symptomatology and community tenure and both their and their family members' social and instrumental functioning.

This was directly dependent on the study's context, i.e., the agency's organizational style and structure, and on our ability to satisfy our superiors' periodic queries about time spent on the Project and to maintain our volunteer data collection and treatment staff intact for the three years needed to complete the study.

- Fifth, to assist experimental group families, at the completion of their two-year course of PEMFT, to organize themselves into a family self-help/advocacy group, preferrably affiliated with the National Alliance for the Mentally Ill (NAMI).

Before we began recruiting study subjects in December, 1986, we made two suppositions regarding post-study prospects for the incorporation of PEMFT and a psychiatric rehabilitation treatment approach into the agency's repertoire. We assumed, first, that there would probably be few financial incentives for the agency to do so, either in the form of additional funding or alterations in third-party reimbursement formulas. Second, without such incentives, our "change from below" strategy would fail unless we enlisted as allies our PEMFT families and other interested families whose ill relatives were being treated at the agency. Indeed, we concluded that the formation of a NAMI-affiliated family support and advocacy group at the Project's completion would be the single most important criterion by which to assess the Project's ultimate success or failure.

- Sixth and finally, to determine whether our treatment intervention represented a cost-effective treatment or not, as measured by increased psychosocial treatment and medication compliance by experimental group patients and their decreased utilization of psychiatric emergency and hospitalization services.

Falloon and his colleagues, upon completion of their study of the impact of a two-year long course of Psychoeducational Behavioral Family Treatment carried out at U.C.L.A., asserted a significant cost-benefit ratio for their study subjects, as measured by greater treatment compliance, reduced use of emergency services and lower rates of hospitalization (Falloon, et al, 1984).

During the course of our study, this issue of cost-effectiveness attained greater significance than we could have anticipated. Reduced third-party reimbursement rates for psychiatric hospitalization by the Federal government for Medicare patients and by the State for Medicaid recipients correspondingly increased the importance of third-party funding generated by outpatient treatments. The latter included individual therapy and medication visits and Day

Treatment and Continuing Treatment visits. High rates of outpatient treatment compliance by Project patients would, we hoped, provide us with additional leverage in persuading the agency's Director and his administrators to make our treatment intervention widely available to severely and persistently mentally ill individuals and their families.

In pursuit of these aims, we developed the following hypotheses, viz., that a two-year long course of Psychoeducational Multi-Family Treatment, in conjunction with prescribed medications and clinical case management for patients with chronic schizophrenia, will ...

1.- Ameliorate and control the positive and negative symptoms of individuals diagnosed as having chronic schizophrenia;

2.- Consequently, prevent relapse on their part;

3.- Promote their improved social and instrumental functioning;

4.- Lower their family members' levels of expressed emotion(EE);

5.- Promote the improved social and instrumental functioning of their family members; and

6.- Prove comparatively more beneficial in terms of treatment outcomes for experimental study subjects at comparatively lower costs, i.e., have a more favorable cost-benefit ratio than the standard Maimonides CMHC aftercare treatment regimen.

D.- <u>Dissertation Outline</u>:

The intent of the foregoing was to convey some sense of the conceptualizations by this writer of the problems to be addressed and of the treatment interventions and study design with which to do so as they evolved over time. The preceding sections also represented an attempt to introduce the organizational context in which the study was carried out, i.e., the several intervening structural variables over which the Project team had little control.

These, together with the study design that was finally decided upon, the treatment interventions ultimately utilized and their outcomes will be treated at length in the chapters that follow.

- CHAPTER II - STUDY CONTEXT AND TREATMENT VARIABLES:

Mosher and Keith (1980) assert that the credibility and replicability of clinical research and its utility for other clinicians depend on a clear exposition of the research/treatment context and the treatment interventions employed. At the outset of Chapter II, a more complete description of Maimonides' Department of Psychiatry will be made, followed by a thorough description of our independent treatment variables, particularly PEMFT and Clinical Case Management.

The former will include an update of the most recent findings of the leading psychoeducational family investigators, Anderson, Hogarty, et al, Falloon and McFarlane, and a discussion of the Expressed Emotion (EE) construct and recent studies that have sought to expand upon the seminal work by Brown, et al (1962, 1972), and Leff and Vaughn (1976, 1985). Regarding clinical case management, our application of which is virtually identical to Lamb's "therapist as case manager" (1980), the conceptualizations of Kanter (1985, 1988) and Harris and Bergman (1988) will be examined, as will the work of Anthony and others (1982, 1983, 1986, 1989) in the area of psychiatric rehabilitation.

In addition, the "regular" AOS aftercare treatment provided our control patients, already briefly touched on, will be described in greater detail.

- CHAPTER III - STUDY DESIGN AND IMPLEMENTATION:

Our original research design, including data collection and research methodology, its rationale and conformity to

Department of Psychiatry organizational requisites will be described.

- CHAPTER IV - STUDY OUTCOME DATA:

Data collected over the three-year course of the study from both study cohorts will be presented and evaluated.

- CHAPTER V - INDIVIDUAL CASE STUDIES:

Case studies of the six experimental group patients who completed a two-year-plus course of PEMFT and medication and clinical case management will be presented, as will brief descriptions of the course of treatment of the six control group patients who completed their two-year commitment to the Project.

These studies are designed to complement the findings reported in Chapter IV.

- CHAPTER VI - SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR SOCIAL WORK EDUCATION:

All data, including the individual case studies, will be summarized and conclusions will be drawn regarding the extent to which the Project's aims were attained and the study's hypotheses validated. Recommendations to change social workers' perceptions about working with severely and persistently mentally ill individuals and their families and to recruit them for such work, via state government/university collaboration, will be outlined.

APPENDICES A and B complete the dissertation. The former contains a brief review of the work of the principal psychoeducational family investigators working in this country, the latter a description of a course recently taught by this writer at the Hunter College School of Social Work entitled "Innovations In Working With Severely And Persistently Mentally Ill Individuals."

CHAPTER II

STUDY CONTEXT AND TREATMENT VARIABLES

As per Mosher and Keith (1980), the hallmark of good clinical research and effective clinical practice is their replicability in other locales by other investigators and clinicians. This requires a thorough description of the research and clinical setting as well as of the treatment technologies in question. That is the task of this chapter.

Maimonides Medical Center's Department of Psychiatry, its component service units, its organizational functioning and leadership styles will be outlined. The several treatment technologies employed in the study - PEMFT, the lowest effective dose medication strategies, clinical case management, and psychiatric rehabilitation - will also be discussed, including their value bases, practice principles, research origins and the manner in which they were adapted to Maimonides' organizational and treatment structures.

It should be noted that a literature review of the research outcomes of the several principal psychoeducational family investigators - Goldstein, Anderson and Hogarty, Falloon - from which much of the McFarlane's PEMFT is devised, will not be treated here. The reader is referred to a earlier review of pertinent literature done by this writer in Appendix "A" to this dissertation.

A.- MAIMONIDES DEPARTMENT OF PSYCHIATRY:

Maimonides Department of Psychiatry is part of Maimonides Medical Center, a large teaching hospital in the Boro Park section of Brooklyn, affiliated with Downstate University Medical Center.

It is comprised of several clinical and service components, the largest of which is the Community Mental Health Center (C.M.H.C.) founded in 1967, which serves over 250,000 people in west Brooklyn. The C.M.H.C. contains a 9.39 or emergency acute psychiatric inpatient unit, an Adult Outpatient Service (A.O.S.), a Child and Adolescent Outpatient Service (CAOS), a partial hospitalization service or a Day Hospital, a Continuing Treatment Program (CTP) for severely and persistently mentally ill patients, and a Consultation and Education (C&E) or community outreach service. All are Federally mandated services that all C.M.H.C.'s, free-standing as well as hospital-based, must provide. The staff in all these units is highly trained and experienced, with a great majority having more than ten years tenure in the agency.

The same can also be said of staff in the other component units of the Department of Psychiatry, which include a private psychiatric inpatient unit known as the Jane B. Aron Unit, the Developmental Center, which provides evaluation and referral services to mentally retarded individuals and their families, and the Residency Training Program in Psychiatry.

Since 1975, when the C.M.H.C.'s original Federal funding grant expired and New York City nearly went bankrupt, the Department has had to function in an increasingly problematic organizational environment (Okin, 1984; Biegel, 1982). In addition to having its budget slashed by one-third and losing three quarters of the C.M.H.C.'s outreach programs and outreach staff in 1975, the Department was advised by the New York City Department of Mental Health and the Medical Center to promptly and dramatically increase revenue by increasing its third-party insurance reimbursements, i.e, by serving more Medicaid and Medicare patients.

Both the City Department of Mental Health and the Medical Center also began exercising stricter regulatory controls of the Department, particularly of the C.M.H.C. The City Department of Mental Health set service standards, i.e., patient service quotas for the Department to meet or risk additional budget cuts. MMC administrators, beset by more regulations from a growing number of regulatory bodies (C.F. Starr, 1982), such as the Joint Commission for the Accreditation of Hospitals (JCAH), quickly moved to thoroughly integrate the Department's administrative functioning with the Medical Center's, succeeding in inhibiting the administrative and staff autonomy in the Department.

One immediate consequence was to focus all the Department's energies on productivity. Indeed, as one financial crisis has followed hard on another since the mid-1970's, increased productivity as the ready albeit short range solution was principally relied upon to resolve these crises by M.M.C. and Department of Psychiatry administrators. In such an atmosphere, it is virtually impossible to undertake new treatment technologies or to conduct the research needed to evaluate their clinical effectiveness, since no one has the time or energy to do either.

Within five years of the 1975 crisis, the C.M.H.C.'s then Director, who had secured the C.M.H.C.'s Federal seed money ten years earlier and who was known as a progressive innovator with a maverick, i.e., hard to control, leadership style, found himself marginalized. Allowed little say in the future of the agency, he resigned in 1984. Firmly established in his place was the Director of the Department, a psychiatrist hired in 1976 to counterbalance the Director of the C.M.H.C.

His agenda was essentially a narrow one, aimed at returning psychiatrists to a position of predominance in the agency. He appeared to be motivated, at least in part, by the concerns voiced by members of the American Psychiatric Association (A.P.A.) in the late 1970's that psychiatry was abdicating its leadership position in the public sector, i.e., in state hospitals and C.M.H.C.'s, and, in the process, abandoning its traditional patient constituency, the severely and persistently mentally ill (Biegel, 1984).

To remedy the former at Maimonides, the Director of the Department developed a two fold plan: on the one hand, to establish a private inpatient unit, one of the few in Brooklyn, which could serve to attract Brooklyn psychiatrists in private practice, to whom attending status and admission privileges would be granted; on the other, to reform the Department's Psychiatry Residency Training Program and attract more and better qualified candidates. The latter, upon graduation, would remain affiliated with the Department as either staff or attending psychiatrists. He also sought to promote research by either the residents themselves or Department clinical staff in an effort to enhance the program.

As for the severely and persistently mentally ill patients treated by the agency, he initially promoted the expansion of the Day Hospital and Continuing Treatment Programs in order to provide aftercare for patients recovering from acute psychotic episodes that had required hospitalization. Since nearly all such patients are Medicaid or Medicare recipients, productivity goals would also be served. Subsequently and largely as a consequence of M.M.C.'s own fiscal crisis, he pushed the establishment of a seven day a week socialization program for this population.

None of these initiatives met with more than limited initial success and prospects for their eventual success remained poor. Indeed, the Director's position was in jeopardy, largely because of the Medical Center's financial predicament. As a result of the plant expansion undertaken in the first half of the 1980's and short falls in income occasioned by Federal regulatory mechanisms governing reimbursements, primarily the DRG's in relation to Medicare, the Medical Center, like many other hospitals, was experiencing a liquidity crisis and often had no money to pay its bills (Jencks, et al, 1985). A new Chief Executive Officer (CEO), hired in 1988 to confront this problem, promptly instituted classic and painful measures in response to demands for increase productivity accompanied by financial cutbacks, principally staff lay-offs.

When my colleague and I first approached the Director of the Department of Psychiatry regarding our Project proposal, the organizational exigencies were less extreme and we had some reason for optimism. Following the Brager/Holloway (1978) paradigm, we sounded out line staff and directors of various service units within the Department before we met with him and found a good deal of enthusiasm for our plan. It should be noted that both of us were regarded as excellent clinicians and responsible and loyal staff members.

When we finally met with the Director, we began our appeal for his support by emphasizing the research aspect of the Project, noting that it was the first clinical research ever undertaken in the Department. We also noted that the Project would serve to benefit severely and persistently mentally ill patients and their families. In short, we pitched our appeal to areas of interest and concern to him.

We very consciously attempted to estimate the long- and short-range cost and benefits for the agency. We speculated that if McFarlane's study was successful, the State could well make money available for psycho-education and rehabilitation programs. As events have proved, the State has totally committed to the psycho-social rehabilitation of its SPMI patients and is obliging private voluntary agencies, via financial incentives and/or penalties, to revise their clinical programs and service delivery accordingly (N.Y. State Office of Mental Health, 1989).

In addition, we predicted greater treatment compliance and service utilization by our experimental cohort patients, which would mean increased revenues and less lost therapist time for the agency. Indeed, the agency's administrators, including the Director, demonstrated their greatest interest in our PEMFT and clinical case management interventions when such actually occurred.

More immediately, we presented to the Director a modestly scaled Project and study designed to be implemented at little cost to the agency. Our intent was to demonstrate not only our flexibility but the facility with which both the study and new intervention could be adapted to the agency's existing organization and structure.

Sixteen patients and their families, divided into experimental and control groups, would be recruited for the study. The post-hospitalization treatment of the eight control patients would be virtually the same as for all other CMHC patients. They would continue working with their Adult Outpatient Service (A.O.S.) therapists of record, but would be seen by a Project psychiatrist who would take charge of their medication management. The same psychiatrist would also administer the Project's PRS/SANS interview schedule to them at six month intervals.

My colleague and I would become the A.O.S. therapists of record for the eight experimental patients, and conduct regularly scheduled PEMFT sessions with them and their families. Another Project psychiatrist would take charge of administering both their medication and PRS/SANS interviews.

Two other psychiatrists in the C.M.H.C. inpatient unit, where the study cohort was to be initially recruited, would screen all prospective study candidates to ensure they met DSM III criteria for chronic schizophrenia (Spitzer, Williams, 1985). They would also conduct the base-line PRS/SANS interviews when Project patients were discharged from their indexed hospitalizations.

Finally, the SAS family interviews were to be carried out at 12 month intervals by four Department of Psychiatry staff professionals termed "raters", three nurses attached to the inpatient unit, and a social worker who coordinated the agency's Community Support Services.

My colleague and I estimated that we would require seven to ten hours per week to carry out our study and related clinical responsibilities, entailing a corresponding reduction in our assigned work duties. The four psychiatrists simply agreed to incorporate their additional tasks into their existing workload; and the four "raters" would take time off equivalent to their time spent on the Project.

We also projected for the life of the Project a budget of $500 dollars. This would enable us to purchase a videotape by McFarlane on the biology of schizophrenia, to be shown to families at the all day workshop which would signal the start of the PEMFT sessions; to pay McFarlane's Director of Research to train the Project psychiatrists and "raters" in the use of the PRS/SANS and SAS interview instruments; and to assemble a library of books, pamphlets and videotapes for the use of experimental group patients and their families.

While the Director of the Department readily acceded to our requests and helped us secure the approval of M.M.C.'s research Committee, the conditions under which we would carry out the study ultimately proved quite problematic.

First of all, our decision to design the Project in accordance with the agency's structure and organizational exigencies - e.g., our decision to locate the Project administratively in the A.O.S. and to serve as therapists for the experimental cohort patients - precluded the possibility of a double blind study. Everyone in the agency, including all the Project's study subjects, knew who belonged to which cohort.

Secondly, the need to take into account the heavy workload of the Project's psychiatrists and "raters" and to spread Project tasks among four psychiatrists instead of two and among four "raters" instead of two jeopardized inter-rater reliability and the validity of the data collected. In fact, the great discrepancy in scoring experimental and control patients negative symptoms on the SANS by the two A.O.S. Project psychiatrists caused us to totally disregard that information.

Finally, all the agency staff members involved in carrying out the Project, including my colleague and I, ultimately added Project responsibilities to their regular work-loads. Psychiatrists and "raters" rarely took compensatory time off, and my colleague and I, with the unrelenting productivity demands by the agency and outside forces, never experienced a reduction in our workload. That everyone did all that was asked of them for the three years it took to complete the study is testimony to their commitment to the project.

B.- PSYCHO-EDUCATIONAL MULTI-FAMILY TREATMENT (PEMFT):

PEMFT, as developed by McFarlane, has borrowed much from the psychoeducational family treatment interventions designed by Anderson, Hogarty and colleagues in Pittsburgh (1986) and Ian Falloon and colleagues in Los Angeles (1984). It shares with them much of the same aims, values and practice principles, with one notable exception: in PEMFT, several families meet together in a group for purposes of self-help and mutual social support (McFarlane, 1983).

Precisely like the other psycho-educational treatments, however, PEMFT is essentially a learning experience for families and, to a somewhat lesser extent, their mentally ill relatives. In each PEMFT session, mental health professionals, who serve as leaders in the group's formative stages, inform families of the biological theories regarding the etiology of chronic mental illness, particularly schizophrenia, describe for them the short- and long-term courses their ill relatives' illnesses are likely to take, and instruct them in illness management techniques.

AIMS: PEMFT sets out, as do the Anderson/Hogarty and Falloon approaches, to debunk the notion that families cause mental illness. It rests on the converse assumption that families can help their ill relatives recover from acute psychotic episodes and embark on a course of rehabilitation.

A principal aim of PEMFT is to enlist the family as an ally in their ill relatives' treatment. A second, complementary aim is to relieve the family of its emotional burden of caring for an ill relative and provide emotional support by involving the family with others facing the same set of problems. The group setting is also designed to relieve families' social isolation and to promote family members' return to normative social functioning (McFarlane, 1983).

Other PEMFT aims, that focus more on the patients or ill relatives, include preventing or at least forestalling their relapse , remediating their social skills and problem-solving deficits, and promoting their rehabilitation and restoration to appropriate social and instrumental role functioning (McFarlane, 1984; McFarlane, et al 1991).

VALUES: PEMFT is a family-focused intervention resting on the assumption that information about chronic mental illness will empower families and relieve them of self-ascribed notions of blame and guilt. Following from this, PEMFT subscribes to a disease model of mental illness, viz., that mental illness, principally schizophrenia, has yet to be uncovered biochemical as opposed to psychological causes; that, while still incurable, its symptoms can be ameliorated and controlled and those who suffer from it restored to an adequate - if not normative or pre-morbid - level of social functioning.

PEMFT also embraces the findings of the longitudinal outcome studies of the course of the illness of individuals with chronic schizophrenia completed and publicized in the last several years by Bleuler (1978), Harding and others (Harding, Strauss, 1985; Ciompi, 1980) which demonstrate that outcomes for the majority are not deteriorative.

In sum, PEMFT is a hopeful and optimistic intervention, stressing not pathology but the potential of individuals with schizophrenia to be rehabilitated and restored, along with their family members, to appropriate and productive role functioning.

PRACTICE PRINCIPLES: In the treatment of families with relatives suffering from chronic schizophrenia, PEMFT has a set of practice or guiding principles identical to the other psycho-educational family interventions.

First, schizophrenia is a brain disease of biochemical origins, whose course is profoundly influenced by environmental and psychosocial stressors. The latter is best illustrated by two complementary hypotheses that appear to be supported by clinical observations. The first, advanced by Anderson, Hogarty and colleagues (1980;1986), is that individuals suffering from chronic schizophrenia appear to have an attention arousal dysfunction, i.e, they have an impaired ability to distinguish between simultaneous environmental stimuli and are unable to screen out those that are extraneous to the particular task at hand. Consequently, they become cognitively overwhelmed and either withdraw into themselves and seek to isolate themselves from others in order to reduce the barrage of stimuli or they misperceive and distort the surrounding reality. Zubin and Spring (1977) attribute such behavioral responses to environmental stresses by individuals with schizophrenia to an innate biological vulnerability to psychosocial stressors on their part, which Falloon has termed a "stress-diathesis" model for understanding the illness (Falloon, et al, 1984).

Neuroleptic or anti-psychotic medication is considered the key bio-chemical agent to protect individuals with chronic schizophrenia from excessive environmental stimulation and psycho-social stressors, particularly during the first year post-acute episode, their period of greatest vulnerability and susceptibility to relapse. Nonetheless, while medication compliance is crucial to the treatment success of PEMFT and other clinical treatments, it is not alone sufficient to prevent or even forestall relapse and eventual rehospitalization. As the research completed by Hogarty and colleagues in the 1970's and described in greater detail below demonstrates, neuroleptic medication's protective capabilities decline as patients begin to reinvolve themselves in the world, which most begin to do by the second year post-acute episode (Hogarty, et al, 1973; 1974a; 1974b; 1979).

When patients pursue anew social and romantic relationships and vocational and educational goals, psychosocial stressors increase accordingly. To continue what can only be described as a process of rehabilitation, patients must not only be medication compliant but require psychoeducational training in illness and stress management, social skills training to negotiate stressful interpersonal transactions and social support from family, friends and other concerned individuals, including mental health professionals (Hogarty, et al, 1986).

Finally, in the first two years post-acute episode, family support and understanding are also considered crucial, particularly if the patient resides with or has substantial contact with his or her family. In psycho-educational family treatment and parlance, high family expressed emotion (EE), i.e., highly critical comments by key family members, usually the patient's parents, directed at the patient, as well as emotional over-involvement or intrusiveness on their part in the patient's life is considered to cause psychiatric relapse (Vaughn, Leff, 1976; Leff, Vaughn, 1981, 1985).

As previously indicated, this is a source of contention for those who participated in this study and is hotly disputed by family advocates and representatives of the National Alliance for the Mentally Ill, who perceive the alleged causal link between family EE and patient relapse as an updated version of blaming the family (Hatfield, Lefley, 1987). This, too, will be discussed in greater detail in the section that follows.

RESEARCH ORIGINS: Psycho-educational family work originated with the British in London in the early 1960's (Brown, et al, 1962). When deinstitutionalization of long-term mental patients began in Britain in the 1950's, it was noted that 50% of those with a diagnosis of schizophrenia who had been discharged to their family homes were re-hospitalized in less than six months time. This was in sharp contrast to the 15% re-hospitalization rate within that same six month period for individuals discharged to board and care facilities.

Brown and his colleagues, who were the first to investigate this phenomenon, developed the concept of Expressed Emotion (EE) to explain it. They described EE as consisting of a combination of critical comments (CC) directed by family members towards their ill relatives and family members' emotional over-involvement (EOI) and intrusiveness with ill relatives, and posited a causal link between what they termed "high" family EE and relapse and re-hospitalization for family members diagnosed with schizophrenia.

Replications of the original study by Brown and colleagues ten years later (Brown, et al, 1972) and by Vaughn and Leff in the mid-1970's (Vaughn, Leff, 1976) produced identical findings regarding relapse and rehospitalization rates and appeared to validate the hypothesized causal link with high family EE. All the investigators also found that family EE level was not education and social support. When "high" EE families were placed in treatment groups with "low" EE families, the former appeared able to learn from the latter how to respond to their ill relatives with less emotional reactivity (Vaughn, Leff, 1976).

After several months participation in these groups, "high" EE families' EE levels were lowered to those of "low" EE families, with a corresponding drop in the relapse rates for their ill relatives equal to those found in "low" EE family households.

In this country, Anderson, Hogarty and colleagues at the Western Psychiatric Institute in Pittsburgh reached similar conclusions regarding the effectiveness of family psychoeducation in an equally serendipitous fashion. Throughout the 1970's, Hogarty and colleagues conducted a series of controlled studies to measure the effect of medication compliance in preventing or forestalling the clinical relapse of individuals diagnosed with chronic schizophrenia (Hogarty, et al, 1973; 1974a; 1974b). All study subjects prescribed placebo medication subsequent to hospitalizations for acute schizophrenic episodes suffered relapses during their first year in the two-year study. In contrast, only 20% of study subjects administered fluphenazine injections to insure medication compliance fluphenazine injections to insure medication compliance relapsed during that first year. Nonetheless, the remaining 80% had all relapsed by the end of the study's second year.

A third study group was comprised of individuals who received fluphenazine injections plus a psychosocial treatment intervention termed Social Treatment (ST), described by Hogarty as social casework combined with periodic family interviews. This cohort also experienced a 20% relapse rate during its first year post-hospital discharge, but no member of that group relapsed during the second year.

Hogarty drew the following conclusions from these findings:

1.- Medication compliance was essential during the first year following hospitalization for an acute schizophrenic episode to prevent relapse. The 100% relapse rate for the placebo cohort appeared to coincide with the British EE study findings that individuals with schizophrenia were most vulnerable to relapse during their first year of recuperation from an acute episode.

2.- Medication alone was not sufficient to prevent relapse for two years post-hospital discharge. It was during the second year that most individuals had improved sufficiently to attempt to assume normative social functions - return to work, to school, to resume friendship and romantic relationships, etc. While medication afforded protection for biological vulnerability, psychosocial interventions were required to buffer individuals from environmental stressors as well as to equip them to effectively respond to them.

The psycho-educational family treatment developed by Anderson, Hogarty, et al, in the late 1970's was essentially designed to secure medication compliance plus reduce environmental stress, particularly during that first year of greatest vulnerability. Since the great majority of severely and persistently mentally ill individuals returned after hospitalizations to live with their families of origin (Minkoff, 1978), psychoeducation, particularly the psycho-educational or "Survival Skills" workshop (Anderson, et al, 1986), became a vehicle in which to teach family members the biological and psychosocial features of schizophrenia, to impress on them the importance of medication compliance, and to enlist them as allies in the treatment of their ill relatives. Conceptualized in accordance with the EE paradigm, the overall intent was to lower family EE and maintain family home environments as stress-free as possible.

As with the earlier British interventions, successful outcome is measured in terms of relapse prevention and lowered family EE, as scored on the Camberwell Family Interview (CFI) schedule (Leff, Vaughn, 1985). While Anderson, Hogarty and colleagues initially assumed uni-directional correlation between the two, i.e., expressed emotion determining recrudescence of symptoms and the relapse of ill relatives, Hogarty recently reported that EE appeared to be more an interactive process than an uni-directional phenomena; that it was not clear which precipitated which, i.e., onset of symptoms or high EE; and that high EE itself was not significantly predictive of relapse (Hogarty, 1985; Hogarty, et al, 1988).

Earlier, Goldstein and colleagues had reported similar findings, principally that EE was interactive and predictive of relapse primarily with young men 25 years of age and younger (Miklowitz, et al, 1983). Goldstein also observed that the CFI was ultimately inadequate to resolve this "chicken and egg" question of whether an upsurge in family EE predicted ill relatives symptomatology or vice versa, since the CFI only measured family attitudes and not behavior.

However, this issue is not so easily resolved. Falloon claimed a cross-cultural replication in Los Angeles of the British studies (Falloon, et al, 1982). Australian researchers, on the other hand, found high family EE to be predictive of relapse only where two other variables coincided, viz., a chronic or long-term course of illness for ill relatives living in one-parent homes (Parker, et al, 1988). More recently, Goldstein and several colleagues in

California found EE to be not only interactive but to be predictive of relapse only when family members' highly expressive "affective style"(AS) was matched by an ill relative's equally expressive and complementary "coping style" (CS) (Miklowitz, et al, 1989; Strachan, et al, 1989).

Our own impression, drawn from our two-plus years work with our experimental group families and patients, was that we had witnessed a truly interactive process. It appeared to us that family members, particularly parents, had become so attuned over the years to their ill children's behavior and moods that the slightest change for the worse in either triggered a quick upsurge in parental anxiety. It was usually not clear what had prompted the behavioral and/or mood changes in the first place. Nonetheless, PEMFT appears to interrupt or at least retard the process and forestall a quick and steady accumulation of mutually exacerbative patient symptoms and family reactivity.

MFSDP ADAPTATIONS OF McFARLANE'S PEMFT: McFarlane's PEMFT borrows heavily from the Anderson, Hogarty and Falloon psycho-educational family treatment models (Anderson, McFarlane, 1985). However, it differs from them in its focus on the issue of families' social isolation, postulating a correlation between the length of time a family has cared for an ill relative and the extent of the social isolation.

The multi-family group format is seen as affording a practical and effective response to families' sense of isolation or emotional cut-off. Families are brought together to provide one another social support and alleviate their emotional burdens and feelings of stigma. They are encouraged by the therapist-group leaders to network with one another outside PEMFT session in order to generalize the mutual support experience into their day-to-day lives.

Similarly to the Anderson/Hogarty and Falloon models, families are engaged as allies in their ill relatives' treatment, are instructed in the biology of schizophrenia and are taught problem-solving skills to enhance their coping abilities. The course of treatment and each PEMFT session are structured to foster the acquisition by family participants of these skills and to utilize them beyond the PEMFT.

In the Maimonides FSDP, the two-year long course of treatment outlined by McFarlane was faithfully replicated. Specifically, we began our PEMFT with an all-day Psycho-Educational Workshop, virtually identical to the Anderson/Hogarty Survival Skills Workshop, attended only by family members. This was to allow family members the opportunity to express strong and angry feelings, often directed at their ill relatives and mental health professionals, before patient members joined the group.

Members of six of the eight families - all parents - recruited to the PEMFT experimental cohort attended the Workshop. The mother of one patient, who ultimately failed to engage in the PEMFT, and the parents of another, who were called out of town to Florida to handle a family emergency there, were not able to attend. An abbreviated version of the Workshop was held for them a month after the all-day affair.

The morning session of the Workshop was devoted to the biology of schizophrenia. A special educational video-tape prepared by McFarlane and made available to us was shown with several breaks to allow for discussion. A psychiatrist from the C.M.H.C. inpatient unit, who was involved in determining whether Project patient candidates met DSM III criteria for chronic schizophrenia and who administered the PRS/SANS interviews at their discharge, was available to provide further explanations and answer questions.

COURSE OF PEMFT

MAIMONIDES FSDP

Figure 1.

1987		
January to April	-	Recruitment of and Joining with Experimental Cohort Family Members and Patients.
April	-	All-day Psychoeducational Workshop for Experimental Cohort Family Members.
May to mid-June	-	Six Weekly 1&1/2-Hour PEMFT Sessions to Promote Group Cohesion.
July to October, 1988	-	Thirty-two Bi-weekly 1&3/4-Hour PEMFT Sessions to Promote Patients'Stabilization and Illness Management Via Group Problem-Solving and Support.
thru		
April 1989	-	Six Monthly 2-Hour PEMFT Sessions Wherein Participants Discuss Continuation of Monthly Sessions Beyond Conclusion of Project and Possible Affiliation with N.Y. State Alliance for the Mentally Ill (A.M.I.). and Project's Conclusion for Experimental Cohort.

It should be noted that the psycho-educational process with PEMFT families had actually begun earlier. My co-therapist and I had each met individually with our assigned families on at least four and as many as ten occasions prior to the Workshop. Four months were required to recruit the original eight PEMFT families and patients, and each was met on an almost weekly basis from the time of entry into the Project until the Workshop, which marked the beginning of the PEMFT sessions. These individual family sessions were used to obtain relevant information and history, to explain the goals and principal feature of the Project and the PEMFT and family member and patient roles in both, and to join with family and patient and engage them in treatment.

During the Workshop's afternoon session, the focus shifted to a discussion of problem-solving techniques, communication skills building and guidelines to be followed by family members to diffuse emotionally charged situations at home. These were to be the themes and subject matter of the PEMFT sessions, and family members were encouraged to raise specific and concrete issues of concern during the Workshop by way of preparation. Family members, in other words, were being exposed to the notion of reducing stress by creating a relatively benign in-home environment, particularly during the Project patients' first year post-hospital discharge in order to lower the likelihood of their ill relatives' relapse.

Toward this end, a very explicit connection was made by Workshop leaders between schizophrenia's biology, the theme of the morning session, and psychosocial and environmental stressors.

However, the fundamental aim of the Workshop was to foster a sense of group membership and cohesion. Family members, when introducing themselves at the Workshop's outset, were asked to share as much of their stories of personal travail as they chose in order to establish a premise of commonality. As per Anderson and Hogarty, morning and afternoon sessions of the Workshop were divided by lunch for all participants, and each session was punctuated by coffee breaks to afford family members an opportunity to socialize and begin to get to know one another personally. The Workshop leaders' tasks were to promote interaction and to ensure a warm, open and informal atmosphere.

To judge by the enthusiasm manifested by family members during the course of the Workshop and by their ultimate commitment to PEMFT and to one another, which is to be discussed in the chapters to follow, the "coffee-break" strategy proved successful and a group identity began to emerge. It should be noted that the only true drop-out from the PEMFT was the mother who did not attend the Workshop, which again coincides with Anderson and Hogarty's findings (Hogarty, 1985).

The Workshop ended with a final description of the Project and the PEMFT, with family members reminded of the schedule of meetings. The first six PEMFT sessions of one and one-half hours each were held on consecutive weeks to continue the process of group formation. Thereafter, sessions of one hour and forty-five minutes duration occurred on an every other week basis for the next sixteen and one-half months. During the Project's final six months, sessions occurred monthly for two hours to allow for group termination.

Project patients were invited to all PEMFT sessions. Two of the six patients who completed the Project attended virtually every session and reported themselves to have benefitted greatly from the experience. This will be discussed at greater length in a later chapter. One other patient attended with some regularity, which afforded him and his father their only substantial relationship time together. Still another, the most deteriorated of the six, who rarely left his home, attended only when hospitalized in the C.M.H.C.'s inpatient unit. Of the two remaining patients, one attended only one session; both were essentially too anxious and suspicious to attend.

STRUCTURE OF BI-WEEKLY PEMFT SESSIONS

MFSDP

Figure 2.

First 15 minutes - Socialization: to lower anxiety and sharpen social skills.

15 to 60 minutes - Group "go-around", with each family providing an account of preceding two weeks' events.

60 to 90 minutes - Group focus on family or families presenting most stressful problem(s), accompanied by group problem-solving.

90 to 105 minutes - Socialization: to reduce stress and conclude session.

Each PEMFT session, regardless of duration, was highly structured, with the first and last 15 minutes given over to small talk and socializing, and the middle and greater part of the session given to an update by each family of its current circumstances and the selection by the group of a problem presented by a particular family member to be addressed. In this latter, we departed from McFarlane's model by conducting problem-solving more informally rather than in the step-by-step fashion advocated by Falloon (Falloon, et al, 1982, 1983). Rather than "brainstorming" a wide range of problem definitions and solutions or options, with the group and family ultimately selecting one for the family to attempt for the one to two week time period until the next session, we favored an open, free-flowing discussion. In my estimation, we sacrificed the modelling and practicing of cognitive problem-solving, with its enhanced likelihood of extra-session generalizability, for a low-key socialization experience which, during its course, addressed problems and proffered solutions but essentially promoted in- and extra-session networking.

Families and those patients who participated regularly reported great satisfaction with this approach, and many did establish friendships which continue until the present, more than one year after the Project's conclusion.

Our second major point of departure from McFarlane's model occurred during the Project's last six months. Rather than using the final six sessions to focus on termination, we discussed the following options with the Project's participants - whether to continue the PEMFT sessions beyond the Project's two years; whether to utilize the existing group as the nucleus of family advocacy group, modelled on and probably affiliated to the N.Y. State Alliance for the Mentally Ill, to be housed in the Department of Psychiatry.

All PEMFT participants readily agreed to the former, continuing to meet monthly past the April 1989, Project termination date, and eventually agreed to undertake the task of organizing other families in a broad-based advocacy group. This had been our ultimate aim, and the PEMFT participants' decision appeared to constitute concrete proof of the importance which the group had assumed in their lives and of the corresponding reduction in their sense of social isolation.

C.- MEDICATION COMPLIANCE AND THE LOWEST EFFECTIVE DOSE STRATEGY:

Neuroleptic medications are integral to McFarlane's - as well as Anderson/Hogarty's and Falloon's - psycho-educational family treatment model, constituting the biological complement of the psychosocial PEMFT intervention.

AIM: Recent research regarding medication dosage has indicated that neuroleptic medications prescribed at lower doses are equally as effective in controlling psychotic symptoms in individuals diagnosed with schizophrenia as when prescribed at high doses (Kane, 1983; Schooler, 1985). This lower-dose procedure has the added and crucial advantage of causing fewer medication side effects in patients and, correspondingly, invariably results in greater medication compliance, the essential aim of this treatment strategy.

PRACTICE PRINCIPLES: The lowest effective dose strategy in the prescription of neuroleptic medications to individuals ill with schizophrenia is a trial-and-error exercise, requiring the full cooperation of the patients in question. It is largely via their reports, supplemented by observations by the treating psychiatrists, therapists and family members, that the lowest effective dose, i.e., the dose that controls symptoms yet produces the fewest side effects, can be determined.

Successful implementation of this strategy, as described in the research literature, requires the following:

1.- Patients sufficiently skilled and cooperative to recognize and report the onset of prodromal signs of illness;

2.- A patient-physician partnership;

3.- The use of depot medications.

MFSDP ADAPTATION: Our circumstances at Maimonides differed in two important respects from those of the low-dose studies. First, we were not conducting a medication study, and did not require Project patients to submit to depot medications, viz., Prolixin Decanoate and Haldol Decanoate, for purposes of uniformity. Second, the C.M.H.C.'s medication prescription practice placed great weight regarding medication route, i.e., oral or intra-muscular injection, on patient preference.

Therefore, while we were committed, Project therapists and psychiatrists, to the lowest effective dose strategy, our medication practice was marked by the following characteristics:

1.- the utilization of the lowest practical medication dose to control medication, i.e., the lowest dosage factored against an individual patient's medication compliance and that patient's willingness and ability to report prodromal signs. It should noted that experimental group patients were instructed by Project therapists from the outset regarding the significance and recognition of prodromal signs in both controlling medication dosage and averting relapse. The success of the instruction was varied, with two patients becoming quite expert, three occasionally alert to and one unable to grasp the concept. Control group patients received no consistent instructions in this area.

2.- Medication route, i.e., oral or I.M., was determined by patient preference, as per agency practice. Where there were none at the Project's start, by the time of its conclusion three patients in each cohort were being maintained with depot medications.

3.-Each cohort of Project patients were assigned its own C.M.H.C. staff psychiatrist for outpatient medication evaluation and maintenance in an attempt to establish inter- and intra-group consistency regarding medication prescription practices.

D.- CLINICAL CASE MANAGEMENT:

As stated above, the principal psycho-educational family treatments referred to in this dissertation appear to pay little attention to the engagement of the identified patients in the treatment process nor to the importance, potential or actual, of individual treatment relationships. There are, of course, caveats against involvement by patients in traditional psychodynamically-oriented individual and group therapies, since these might confound the outcome data of the studies being conducted to evaluate the effectiveness of psychoeducational family treatments.

The supposition appears to be that patients will become engaged in treatment along with their families, i.e., as members of their families. Such was not our experience, and clinical case management was the approach we utilized to involve experimental group patients in both treatment and the Project. While family engagement in the Project and the PEMFT certainly promoted the patients' engagement, we chose to attempt to establish individual relationships with both experimental and control group patients, although the latter were Project- rather than treatment-related. The PEMFT model seemed to require this individual engagement, since the patients were depicted as the ill persons and distinct from their family members. Patients, in their efforts to maintain their own identities, also seemed to prefer to be regarded individually as adults and not as merely their parents' children (c.f. Harris, Bergman, 1988; Bryan, 1990). Finally, Maimonides' treatment structure obliged us to function as individual therapists with each of our PEMFT patients. It should be remembered that each control group patient had an assigned individual therapist.

Although we, too, as evidenced in our study protocol, had underestimated the importance of individual relationships with the patients, we had decided before the Project's start to function as "therapist case-managers," as per Lamb (1980, 1981). We believed that this would enable us to fulfill agency requirements as individual therapists but not detract from the impact of the PEMFT, since we would not be providing psychodynamically-oriented psycho-therapy. Ours would rather be a traditional social work focus, viz., the person-in-environment, and our tasks would be to secure for each individual patient a "congruence of fit" with his/her surroundings (Germain, 1979).

AIMS: In retrospect and with certain modifications, we practiced clinical case management. As per Harris and others (Harris, Bergman, 1988; Harris, Bachrach, 1988; Kanter, 1985, 1988, 1989), clinical case management with individuals with severe and persistent mental illness has the following aims:

1.- to teach patients illness management skills as well as coping skills for environmental stressors;
2.- to assure continuity of aftercare for patients and to assist them to overcome barriers to service and community resources;
3.- to promote patients' rehabilitation, i.e., their restoration to appropriate social and instrumental role functioning.

It is important to note that these goals either complement or coincide with those of the PEFT's.

PRACTICE PRINCIPLES: The same can be said of the practice principles that inform clinical case management. Specifically, the approach embodies the following characteristics:

1.- It is pro-active, i.e., anticipatory. Thus, patients are taught to recognize and report prodromal signs, and therapists are expected to contact their patients immediately after missed appointments to determine why an appointment was failed.

2.- It is integrative, i.e., holistic. Therapists concern themselves not only with patients' emotional well-being but with all aspects of patients' lives that might require intervention. These can include such areas as social welfare entitlements, housing, medical care, etc.

3.- It is rational, promoting step-by-step problem-solving by patients as a necessary coping skill and as a therapeutic antidote to any conceptual disorganization they might be experiencing.

4.- It is highly individualized, with case management interventions confined to satisfying the expressed needs of patients and to helping them achieve the goals that they establish for themselves.

<u>MFSDP ADAPTATION:</u> Unfortunately, our many Project and extra-Project responsibilities kept us agency- and office-bound. Clinical case management is most effective when the case manager can accompany the patient into the community in order to access a variety of resources and to overcome whatever barriers to these resources the patient might encounter.

The principle consequence of this key limitation was to restrict our range of interventions, particularly as regarding needed resources, to the confines of our agency and the mental health system in general. This did not appear to adversely affect our three most functional patients who, on their own, with only emotional support and encouragement from us and the PEMFT group, were respectively able to secure independent housing and employment, admission to Kingsboro Community College, and transitional employment via Fountain House.

The other three less functional clients, who could have benefitted from supported employment or psycho-social rehabilitation programs, were instead obliged to rely solely on our Continuing Treatment Program.

E.- PSYCHIATRIC REHABILITATION:

This chapter will conclude with the repetition of a contention stated earlier, viz., that each of our treatment interventions - PEMFT, medications, clinical case management (CCM) - operated interactively and synergistically and collectively constituted a psychiatric rehabilitation construct and model.

AIMS: As per Anthony and others (Anthony, 1979; Anthony, Lieberman, 1986; Farkas, Anthony, 1989), psychiatric rehabilitation's aim is to promote the restoration of individuals with severe and persistent mental illness to appropriate social and instrumental functioning. This aim is, of course, consistent with those of PEMFT and CCM, both of which could be conceptualized as means to a rehabilitative end.

PRACTICE PRINCIPLES: Psychiatric rehabilitation is based on many of the same principles that underpin PEMFT, viz.,

1.- It is grounded in a disease model, specifically on the notion that severe and persistent mental illness is an illness like any other and those who suffer from it can therefore be rehabilitated.

2.- It places great emphasis on the identification and remediation of patients' deficits, particularly as regards social and vocational functioning.

3.- It acknowledges the patient as an equal partner in the rehabilitation process.

4.- It also acknowledges and seeks to make use of patient strengths.

5.- The rehabilitation process itself is conducted so as to conform with the goals established by the patient.

MFSDP ADAPTATION: Our adaptive use of psychiatric rehabilitation in the Project consisted primarily in our differential application of its precepts. With the three more functional PEMFT patients referred to in the previous section who were able to make ready use of community resources, we were able to recognize and appeal to their strengths, support their goals and encourage their efforts to relinquish patient, dependent roles.

We were unable to proceed similarly with our less functional patients. Much like many other C.M.H.C.'s in the United States(Emery, Gopelrud, 1988; c.f. Anthony, et al,1982), Maimonides does not subscribe to a psychiatric rehabilitation philosophy and, consequently, has neither rehabilitation programs nor roles other than that of patient for severely and persistently mentally ill persons entering treatment there. Even though two of these three patients were able to achieve the only personal and Project goals fully supported by the agency, namely, control of their psychotic symptoms and avoidance of relapse, they proved unable to move beyond the confines of the agency and their patient roles.

It is our belief that this is less a reflection of the patients' own limitations and more a comment on the PEMFT therapists' role constraints, described briefly in the preceding section, and the absence of vision and misallocation of resources on part of both the agency and New York City's mental health system.

CHAPTER III

STUDY DESIGN AND IMPLEMENTATION

A. - RESEARCH DESIGN:

The Maimonides Family Support Demonstration Project's (MFSDP) basic intent was to illustrate the effectiveness of a three-part treatment intervention with severely and persistently mentally ill individuals and their families. Toward this end, we developed the following hypotheses: that a two-year long course of Psycho-Educational Multi-Family Treatment (PEMFT), in conjunction with prescribed neuroleptic medications and clinical case management for study subjects diagnosed as having chronic schizophrenia, will:

1.- Ameliorate and control the latter's positive, i.e., flagrantly psychotic, and negative symptoms;

2.- Consequently, prevent or forestall relapses on their part;

3.- Promote their improved social and instrumental role functioning;

4.- Lower their family members' levels of expressed emotion(EE) or emotional reactivity to them;

5.- Promote their family members' improved social and instrumental role functioning; and, 6.- Prove comparatively more beneficial in terms of treatment outcomes for experimental Project participants at comparatively lower costs, i.e., have a more favorable cost-benefit ratio than Maimonides C.M.H.C.'s "standard" aftercare treatment regimen.

To enhance the credibility of our findings, we proposed to recruit sixteen patients diagnosed as having chronic schizophrenia and their families and divide them equally and sequentially into experimental and control cohorts. Specifically, we intended to assign the first eight to the experimental cohort and the remaining eight to our control cohort, thus enabling us to initiate the PEMFT expeditiously.

Entry into the Project was governed by strict admission criteria, designed to exclude those patients who did not fully satisfy DSM-III criteria for chronic schizophrenia (American Psychiatric Association, 1980) or whose illnesses might be attributed to substance abuse or organic factors. The specific criteria will be described in greater detail in Section B of this chapter.

Once each cohort was fully constituted, experimental and control subjects' symptomatology and social functioning were to be compared at regularly specified intervals over the course of their two year's stay in the Project. As per Figure

3. in Section D of this chapter, patient study subjects' levels of symptomatology were evaluated at discharge from their indexed hospitalizations and at six month intervals thereafter. Similarly, family members' levels of emotional reactivity were measured at their entry into the Project, which coincided with their ill relatives' indexed discharge, and subsequently at the twelve and twenty-four month marks of their Project careers.

The low "N" of only 8 patients plus their families in each cohort would, of course, mitigate against the validity and generalizability of our outcome data. Hence the quasi-experimental albeit controlled nature of the study, and our decision to utilize individual case studies of all Project patients for illustrative purposes and non-parametric statistical measures for data analysis. The case studies constitute the contents of Chapter V and the statistical measures will be described in this chapter's Section E.

Experimental group patients were to receive the three treatment interventions described at length in the preceding chapter and which collectively constituted a regimen of psychiatric rehabilitation, viz., PEMFT, lowest "practical" dose medication maintenance, and clinical case management. If they chose, they could also participate in the C.M.H.C.'s partial hospitalization and Continuing Treatment Programs.

Their families would, of course, take part in the PEMFT sessions as well as single family therapy (SFT) sessions with their ill relatives and the pertinent Project therapist when such were indicated.

Control group patients were to receive "standard" C.M.H.C. aftercare treatment i.e., individual psychotherapy and medication evaluation and maintenance. They and their families could participate in single family therapy (SFT) sessions, provided their therapists offered SFT; they could also participate in the partial hospitalization and/or Continuing Treatment Programs if they chose. Provision of direct treatment services for their families was not planned or prescribed but was totally dependent on the aftercare practice subscribed to by the A.O.S. therapist of record for each control group patient.

However, implementation of the Project suffered unforeseen difficulties in securing the participation of patients and their families in the study, particularly as regards the control cohort, requiring us to make adaptations which blurred somewhat the distinctions between experimental and control groups. Specifically, we found it necessary to join with the patients and family members of both groups in precisely the same way, viz., by forming relationships with them, allowing family members to air grievances against their ill relatives and mental health practitioners, and providing them with a psycho-educational introduction and rationale for the Project. In effect, we replicated a treatment intervention pioneered by Goldstein and his colleagues several years earlier, whose implications for the Project will be described below (Goldstein, Kopeikin, 1981).

During the course of the Project, experimental group patients and their families, with one exception, did receive the array of services planned for them. As mentioned earlier, five of the six patients who participated in the MFSDP from beginning to end attended at least one PEMFT session and two attended PEMFT regularly. All were uniformly compliant regarding individual, case management and medication management appointments. Four of the six participated for varying lengths of time in the partial hospitalization program; one of those four plus the two remaining patients also attended the Continuing Treatment Program, again for varying lengths of time.

PEMFT sessions were attended by their parents - only on three occasions did a patient's siblings or family friends participate in these meetings - at a similarly high rate, as were SFT sessions. These latter were usually held at the request of parents or at the suggestion of Project therapists to address crises and issues that required prompt and additional attention beyond that provided via the regularly schedule PEMFT. They proved to be exceptional occurrences, with five of the six experimental families averaging three such contacts over the course of two-plus years. With the sixth family, comprised of a somewhat frail 72 year old mother and her 31 year old son, the most functionally regressed of this cohort of patients, SFT sessions were held regularly in an attempt to enlist the patient's treatment compliance and to provide additional support to his mother.

As mentioned above, we found it necessary to join with control group members much as we did with their experimental group counterparts in order to recruit them into the Project and to sustain their interest and cooperation for the ensuing two years. At the same time, we decided it would be appropriate to help them as much as we possibly could, given our limited resources and the constraints imposed on us by the study's design. To have done otherwise would have been to ignore patients and families whose plight we were best equipped in the agency to address.

In practice, this required that I, who had assumed sole responsibility for control group recruitment, function virtually as an ancillary staff member of the C.M.H.C. inpatient unit, where the entire control group was recruited. During the course of a control group patient's indexed hospitalization, I visited the patient regularly; worked in conjunction with the inpatient therapist and staff psychiatrist to involve the patient in inpatient treatment and prepare him or her for discharge; provided a brief psycho-educational overview of schizophrenia and encouraged the patient in aftercare treatment compliance to avoid rehospitalization.

Once control group patients were discharged, my treatment relationship with them ended, although I did have fairly frequent contacts with two patients who attended the partial hospitalization service, where I customarily worked, and a third who attended a week-end socialization program initiated by the Department of Psychiatry during the study's third and last year. I also had occasion to advocate on behalf of two control group patients, at their parents' request, who later required re-hospitalization. My research relationship, however, with each of the six who completed the Project did not end and endured for the Project's two year length, with all completing the five PRS/SANS interviews required of them.

A treatment relationship with each of the six was continued by the Project's psychiatrist assigned to maintain their medication once they were discharged from their indexed hospitalizations. He was very much aware of how little by way of support and services they as a group were receiving in comparison to the experimental group patients. He, therefore, spent more than the customary time in medication evaluation sessions with them, attempting to provide them additional support and encouragement, called them promptly when they failed appointments, and made himself available to inquiries from their parents regarding their progress or lack of same. It must be noted that this was not "standard" C.M.H.C. practice and, consequently, was not the Project's treatment protocol for control group patients. By the Project's conclusion, he had succeeded in securing medication compliance from four of the six and was maintaining three of the six on depot medications.

Their families were also afforded additional support and attention during the course of the control patients' indexed hospitalizations. Consonant with the joining process employed for experimental group families, I met with each control group family on at least six occasions to secure their consent to enter the Project, obtain patient and family history and other pertinent information, explain the ramifications of the Project, and provide a psychoeducational overview regarding schizophrenia, its hypothesized origins and its management.

By far the greater part of these sessions, held usually without the patients, was taken up with psycho-educational and illness management. This latter involved the identification of the stressors surrounding the current and past hospitalizations and relapses, possible steps to be taken to prevent the reemergence of these same stressors or ameliorate them if they did, and management of family members' own upset, frustration and disappointment with their ill members and the mental health professionals purporting to help them.

The six family sessions, particularly their illness management aspects, largely mirrored the family focused treatment regimen devised by Goldstein and colleagues at U.C.L.A. in the mid-1970's to prevent relapse in individuals diagnosed as "first-break" schizophrenic (Goldstein, Kopeikin, 1981). Despite their relative brevity, i.e., six family sessions in six weeks or less, Goldstein reported a "powerful" effect for them, i.e., no reported relapses at six months, but virtually no effect, i.e., a substantial number of relapses or symptom recrudescence, at two years subsequent to the final family session.

Since the mean rate of change in first year PRS scores for control group patients, which reflected their level of psychiatric symptomatology, was actually superior to that reported for experimental group patients, +10% vs. +11.9%, it could be argued that my six session intervention with these families had a therapeutic impact similar to that reported by Goldstein from his treatment cohort. Such a conclusion is nonetheless highly speculative, given the poor comparability of the two groups - Goldstein's relatively unburdened parents of first-break schizophrenics on the one hand, and our control cohort of overwhelmed and relatively hopeless parents of individuals with long-term mental illness on the other.

However, the six session regimen did prove to be an effective joining model, enabling me to form relationships which lasted throughout the Project's duration with all families in both groups. As with the control group patients, any treatment relationship ended with their families once the patients were discharged to aftercare treatment from their indexed hospitalizations. Two families, as indicated above, did request my assistance in intervening with the Project's control group psychiatrist to have their children hospitalized. A third called me on occasion for advice. As with their children, my research relationship with each parent involved in the study persisted throughout the Project's two years, resulting in across the board compliance by all with the three SAS interviews to which each had agreed when they consented to join the study.

In sum, our joining methodology, employed with all study subjects, enabled us to secure 100% cooperation from all who participated in the Project from beginning to end and to collect all the data related to study subjects we had originally intended. It also enabled us to provide psychoeducation and, in concert with the Project's control group psychiatrist, additional support to family members and patients who sorely needed such help. Finally, while our joining might have blurred the demarcation between our experimental and control groups, with the latter perhaps more accurately characterized as a comparison group, the two groups nonetheless remained separate and distinct: experimental group patients received PEMFT and, most significantly, the social support afforded by PEMFT; control group parents did not; experimental group patients received a comprehensive psychiatric rehabilitation package of PEMFT, clinical case management and lowest practical dose medication management; control group patients did not.

B. - STUDY SUBJECT RECRUITMENT:

The recruitment of study subjects proved more arduous than anticipated, particularly as regards experimental and control group patients. One year was required to recruit all study subjects, four months for the experimental cohort, twice that long for the control cohort. Two hundred and four hospitalized patients were screened from December, 1986 to December, 1987, and forty interviewed extensively, of which sixteen consented to enter the Project.

The following factors largely account for this. First, admission criteria and procedures were quite restrictive, designed to screen in those individuals with a thoroughly supported diagnosis of schizophrenia and to exclude those whose psychotic episodes could be attributed to organic factors or substance abuse. All candidates, therefore, had to satisfy DSM-III criteria for chronic schizophrenia as determined by our scaled down version of the Structured Clinical Interview for DSM-III-Psychotic Disorders Version (SCID-PDV) (Spitzer, Williams, 1985; Lipkowitz, Carney, 1986), administered by one of the Project's two inpatient psychiatrists. Admission also required that patient subjects be willing to participate in the MFSDP and give their written informed consent; that they speak English and be at least 18 and no older than 45 years of age; that they reside or spend substantial time with at least one family member who was also willing and able to participate in the MFSDP and the PEMFT sessions; that they evidence no organic brain disorder, nor alcohol or drug dependence, nor have had episodes of substance induced psychosis.

Family members also had to give their written informed consent. While they had to satisfy no diagnostic criteria, they did have to evidence interest in their ill relatives' well being, present as having at least a modest capacity for reflection, and be willing to commit themselves to the MFSDP for its two-year length. In addition, the experimental group family members had to speak English since PEMFT sessions were conducted solely in that language.

In contrast to the patients interviewed for admission, their families universally expressed an eagerness to enter the Project. It appeared to allow them, to judge by their comments, to hope that their and their ill relatives' lives might someday improve. All 40 interviewed patients were wary if not openly suspicious of having to commit themselves to an unknown set of procedures for two years. Experimental group candidates invariably expressed skepticism regarding the supposed benefit of treatment compliance. In actuality, 23 candidates who had met the basic eligibility criteria refused to enter the Project; another was ultimately rejected by us since his home situation was often marked by severe marital conflict with an equally psychotic spouse. The eight experimental group patients who eventually entered the Project did so largely for the same reasons offered by their family members, viz., the Project's hopefulness and optimism that they could change their lives and break the cycle of rehospitalization and relapse in which they often found themselves.

Control group patients, to whom we had comparatively little to offer, appeared to join the Project in response to the concern shown and the help provided by me during their indexed hospitalizations. In retrospect, the few benefits available to them via the Project initially dampened my own recruiting efforts with this group. Indeed, recruitment became more directed once we initiated the joining process with these patients and their families described earlier.

Nonetheless, recruitment of a complete control cohort did take eight months and was complicated by two principal factors. One concerned my relationship with the inpatient therapists, comprised of either psychiatry residents, who rotated through the service every six months, or psychology interns, whose tenure on the unit was only four months. By the time I began to recruit control group subjects in earnest, the original group of residents and interns who had been instrumental in helping us recruit the experimental group patients and with whom I had good working relationships, had been replaced by a new cadre. Given my initial ambivalence regarding recruiting control subjects, it took me some time to establish similarly productive relationships with the new treating staff.

Further complicating recruitment was our decision to pair experimental and control group patients across three dimensions: severity and chronicity of illness, marital status and place of residence. This was in accordance with our stated aim to conduct non-parametric statistical analyses utilizing the Wilcoxson Signed Ranks Test, to be described in Section E of this chapter. It had the unanticipated effect, however, of further narrowing our admission criteria and any pool of potential candidates.

As per Fleiss (1981), matching study subjects from separate groups in terms of three identifying characteristics is ordinarily sufficient to permit the analysis we proposed. However, while we were able to assemble two groups whose members are highly comparable clinically and demographically, matching only three intervening variables left unaccounted such equally important variables as pre-morbid functioning. Further, our definition of "illness severity" in terms of number of hospitalizations and initial PRS/SANS scores proved incomplete. Consequently, the last two control group patients who entered the Project did so primarily for having met the basic eligibility criteria.

In concluding this section, it must be noted that each cohort lost two patient and parent subjects in the Project's early months. The first experimental group drop-out was a patient who, the day after discharge from his indexed hospitalization, returned to Rhode Island where he had been living and did not return during the life of the Project. Although his parents expressed interest in continuing, and had attended the Psycho-

Educational Workshop, they were dropped as study subjects and PEMFT participants.

The second experimental group drop-out was a parent who stopped attending PEMFT sessions after the Project's first month. Apparently, she could not tolerate the tumult of the early PEMFT sessions, which were often rancorous events, with much anger directed at the PEMFT therapists by one family member whose daughter was causing much family upset. The parent drop-out, it should be noted, did not attend the all-day Psycho-Educational Workshop and never became a full-fledged member of the PEMFT group. While her daughter, who was relatively treatment compliant, remained in treatment with my colleague, both were dropped as study subjects within the Project's first six months.

The first control group drop-out was a young man who eloped from the C.M.H.C. inpatient unit, where he had been hospitalized for almost two months, while awaiting placement in an adult proprietary home. He reportedly hitched-hiked to Washington, D.C., and then Florida, returning to his mother's home and C.M.H.C. treatment one year later, by which time he had been dropped as a study subject. The second was also a young man who did not return for aftercare treatment once discharged from his indexed hospitalization, at which point he was dropped as a study subject. Unfortunately, he decompensated in less than six months an embarked upon a series of several hospitalizations over the course of the next eighteen months.

C. - STUDY SUBJECTS' CHARACTERISTICS:

In the tables that follow, the prominent demographic characteristics of the study subjects, patients and their parents, who remained in the Project for its two year length, and the clinical characteristics of the twelve patient subjects will be presented for purposes of inter-group comparison.

Demographic information will include subjects' age, sex, marital status, place of residence and their life attainment scores, in accordance with the Hollingshead 4-Factor Index (Hollingshead, 1976). The latter category involves study subjects' total years of formal education and the highest work level obtained by each, and highest level of social status achieved. Work levels are categorized on a one to nine, lowest to highest, continuum. There are five social status levels, I to V, highest to lowest. Social status is the sum of values assigned to each of the Hollingshead Four Factors - an individual's sex, mental status, education and occupation.

PATIENT PROFILES:

Demographics - Experimental Group

Table 1.

			ATTAINMENTS			
AGE	SEX	MARITAL STATUS	YEARS EDUCA.	WORK LEVEL*	SOCIAL STATUS*	RESIDENCE
31	M	S.	8	1	11-V	c. mother
29	M	S.	13	5	40-II	c. mother
38	F	S.	17	8	61-I	own apt.
28	F	S.	13	6	45-II	c.parents
25	M	S.	11	2	19-V	c.parents
29	M	S.	13	5	40-II	c. mother
M-30			12.5	4.5	36-III	

****

Demographics - Control Group

Table 2.

			ATTAINMENTS			
AGE	SEX	MARITAL STATUS	YEARS EDUCA.	WORK LEVEL*	SOCIAL STATUS*	RESIDENCE
41	F	S.	12	1	17-V	c.parents
34	M	S.	13	3	30-III	own apt.
42	F	Sep.	10	3	24-IV	own apt.
27	M	S.	10	3	24-IV	c.parents
29	M	S.	10	3	24-IV	c.parents
35	M	Sep.	12	4	32-III	c. mother
M-34.6			11.1	2.8	25-IV	

* - As per Hollingshead 4-Factor Index (Hollingshead,1976)

The clinical profiles of both cohorts of patients contain the following information: age, sex, diagnosis, age of illness onset, duration of psychiatric history in years, and number of psychiatric hospitalizations; the average interval between each; past and present incidences of substance abuse.

As per the tables, the experimental patients as a group are younger than the control patients, with mean ages of 30.0 and 34.6, respectively. Each group of six is comprised of four men and two women; none of the experimental group patients and only two members of the control group had ever been married. The forty-two year old woman's marriage was short-lived, and she had last seen her husband several years before entering the study. In contrast, the thirty five year old man's wife had left him less than six months prior to his indexed hospitalization and returned to Puerto Rico with his children. The prospect of their reconciliation remained remote throughout the Project in the face of the increased frequency of his relapses and rehospitalizations.

Experimental group patients appeared to have achieved substantially more than their control group counterparts. Four experimental group patients attended college, with one of them attending but not completing graduate school. Only one control patient attended college, while two others completed high school. As a group, experimental patients had a mean of

12.5 years of education as compared to 11.1 for the control group. Experimental patients also evidenced a mean work level, as per Hollingshead, of 4.5, control group patients 2.8. One had worked briefly as a school teacher, another as an executive secretary; two others held clerical positions; another had worked in a grocery store; only one had never worked. Two of the six control group patients had held low-level clerical jobs; two had worked as security guards; one had never worked; and one had been employed as a fork-lift operator, the only one in that group who had worked within the six month period prior to his indexed hospitalization.

The higher educational and vocational levels attained by the experimental group are reflected in their higher mean social status classification, III with a 36 raw score as opposed to the IV/25 of the controls. It is essential to note, however, that experimental patients' accomplishments were achieved prior to or in the early stages of their illnesses. This superior pre-morbid functioning certainly constitutes an important factor in accounting for the superior outcomes they achieved at the Project's conclusion (Strauss and Carpenter, 1979). This should not be construed as mitigating against the impact of our treatment intervention but rather as testimony to its eventual effectiveness in enabling these patients to utilize strengths long submerged under a myriad of symptoms.

Clinical Profiles - Experimental Group

Table 3.

AGE	SEX	DX.	ONSET	CHRONICITY	HOSPS.	INTERVAL	SUB.ABUSE	
				YRS.			PAST	PRES.
31	M	Undif	22	9	6	16 mos. (4/last 5)	E	E
29	M	Para.	21	8	10	6 mos.	E	O
38	F	Para.	24	14	21	7 mos.	O	O
28	F	Para.	20	8	8	8 mos.	E	O
25	M	Undif	20	5	6	7 mos.	E	O
29	M	Para.	24	5	3	20 mos.	E	O
MEAN 30			22	8	9	8.6mos.		

****

Clinical Profiles - Control Group

Table 4.

AGE	SEX	DX.	ONSET	CHRONICITY	HOSPS.	INTERVAL	SUB.ABUSE	
				YRS.			PAST	PRES.
41	F	Undif	28	13	16	8 mos.	O	O
34	M	Para.	24	10	10	12 mos.	E	E
42	F	Undif	15	27	7	50 mos.	O	O
27	M	Para.	24	3	3	17 mos.	E	O
29	M	Para.	20	9	7	11 mos.	E	E
35	M	Para.	30	5	7	10 mos.	A	E
MEAN 34.6			23.5	11	8.3	18 mos. (11.6)		

A = Addicted
E = Episodic
O = None

The final item of demographic information concerns the patients' places of residence. At the outset of the Project, one experimental patient was living in her own apartment and had been for many years. Two control patients ostensibly had their own apartments but spent very little time there, virtually living with their parents on a full-time basis.

As the tables illustrate, the clinical profiles of both groups were quite similar although they differed in several important aspects. While both groups were equally matched as regards diagnosis, with four in each group diagnosed as having paranoid and two undifferentiated schizophrenia, the experimentals' mean age of onset was younger - 22 versus 23.5; their mean length of psychiatric history shorter - 8 versus Il years; yet with a greater mean number of hospitalizations - 9 versus 8.3; and most importantly, with a substantially shorter interval between hospitalizations - 8.6 versus 18 months.

Given their younger age, shorter psychiatric histories yet greater number and frequency of hospitalizations, the impact of their illnesses on them would appear to have been quite severe at the time of their admission to the Project. This constellation of clinical characteristics also gives them a profile comparable to that of the "young chronic" patients described by Pepper and Ryglewicz (1982) and of the patients considered eligible for New York State's Intensive Case

Management (ICM) Initiative (1988): paranoid, treatment resistant and heavy users of psychiatric hospitalization and emergency services.

As regards substance abuse, however, another identifying characteristic of "young chronic" and ICM patients, the control group evidenced a higher incidence of past and current abuse. It should be noted that most of the information regarding patients' substance abuse was obtained from them over the course of their participation in the Project and not at the time of their admission.

While five experimental patients had used marijuana periodically in the past, only one, who had smoked marijuana excessively during his adolescence, continued expressing an interest in it once he entered the Project. Consistent with Test's findings (Test, et al, 1989), he explained he wanted to smoke in order to feel better; it was also an indication that his psychotic symptoms were remitting when his urge to smoke was strongest. During the course of the Project, he periodically drank beer, having been dissuaded by me and the Project psychiatrist to cease smoking dope.

FAMILY PROFILES:

Demographics - Experimental Group

Table 5.

RELATION.	AGE	MARITAL STATUS	YEARS EDUCA.	WORK LEVEL*	SOCIAL STATUS*
Mother	72	W.	6	3	18 - V
Mother	55	W.	13	6	45 - II
Mother	64	M.	12	6	43.5-II
Father	68	M.	13	6	43.5-II
Mother	49	M.	12	6	43.5-II
Father	51	M.	13	6	43.5-II
Mother	54	M.	6	2	18 - V
Father	60	M.	6	4	18 - V
Mother	53	D.	12	4	32- III
MEAN	58.4		10.3	4.7	33- III

Demographics - Control

Table 6.

RELATION.	AGE	MARITAL STATUS	YEARS EDUCA.	WORK LEVEL*	SOCIAL STATUS
Mother	72	M.	12	3	29.5-IV
Father	77	M.	12	4	29.5-IV
Mother	65	M.	12	3	34.5-III
Father	66	M.	12	6	34.5-III
Mother	75	M.	10	3	24.5-IV
Father+	81	M.	6	4	24.5-IV
Mother	62	M.	6	3	18.5-V
Father+	55	M.	10	2	18.5-V
Mother	57	W.	6	3	18-V
Mother	55	Sep.	6	3	18-V
MEAN	66.5		9.2	3.4	23.3-IV

(* - As per Hollingshead, 1976; + - Did not participate in FSDP)

Three control group patients also admitted past marijuana use, and a fourth had been an I.V. heroin drug addict, ceasing his drugs schizophrenia. Of the group of three, two admitted to continued marijuana abuse, again largely to feel good. One of the two also abused crack periodically. When he was eventually persuaded midway through the Project by the control psychiatrist to stop his crack and pot abuse and comply with his medication regimen, his symptoms ameliorated and his instrumental functioning improved dramatically.

The ex-addict patient continued to abuse alcohol periodically throughout the Project, largely to counter his feelings of depression. He was the individual whose wife had left him several months prior to the Project's inception. Midway through it, his brother, a former addict with whom the patient had shared needles, died of complications resulting from AIDS. A little more than six months later, he himself tested as HIV positive.

Similarly to their children, experimental group parents, as a group, were much younger, with a mean age of 58.4 years as compared to the controls 66.5; better educated, with a mean of 10.3 years of education compared to the controls 9.2; with a higher mean work level, 4.7 versus 3.4; and higher social status achievements - mean classification of III with raw scores of 33 versus IV/23.3 - for control group members.

The age differentiation between the two groups was sufficiently substantial to allow one to conclude that control group parents, older with older children with longer psychiatric histories, had borne the burden of caring for their ill children for a longer period of time. This could well explain their higher scores in the initial SAS III interviews conducted at the Project's outset.

On the other hand, four control group families were comprised of intact married couples as compared to three married couples in the experimental group. Nonetheless, three of the four fathers appeared to maintain themselves distant from their ill children in contrast to the experimental group fathers, with two declining to participate in the Project. Two of the experimental group fathers had been involved with their children since the onset of their children's illnesses, and the third became involved during the course of the Project, thus providing a good deal of support for their wives.

The three experimental group single mothers were a 72 year old woman, widowed in her late 40's, who had spent the last 25 years living with her ill and only son; a 55 year old, widowed ten years earlier, who had lived those years alone with her ill son, the second of three children; a 53 year old, divorced fifteen years earlier, who had lived the last ten alone with her ill son, the youngest of three. As the outcome data that will be described in the following chapter will attest, these women, isolated and heavily burdened for years, benefitted greatly from their involvement in PEMFT, which constituted a tremendous source of support and understanding for them. Indeed our outcome data clearly indicate that all family members who participated in these sessions benefitted from them.

In addition to the four control group mothers and fathers already referred to, the two other control group participants were a 57 year old woman, widowed a year earlier, who had lived in an apartment upstairs from that occupied by her ill son, whose identical twin was highly functional and had never been ill; and a 55 year old woman, separated from her husband about 10 years earlier and never legally divorced, who had been caring for her ill son, whose wife had left him six months earlier. Viewed retrospectively, control group family members appeared much more isolated than their experimental group counterparts at the Project's outset. There is no reason to believe that they, too, would not have benefitted substantially from PEMFT participation.

D. - MEASUREMENT OF OUTCOME VARIABLES:

Our research design, data collection methodology and evaluation procedures closely followed McFarlane's and were developed in consultation with his Director of Research

(McFarlane, 1984). As per McFarlane, the principal source of data for the Project was the study subjects themselves. Information was obtained about their progress or lack of same primarily via structured interviews conducted at regularly scheduled intervals with each study subject as described below. Additional information concerning treatment service utilization and treatment compliance was obtained by a monthly review of all study patients' clinic charts. Supplemented by monthly tally sheets and reporting forms filled out by Project therapists and the control group patients' A.O.S. therapists, the statistics drawn from the monthly chart review also enabled us to determine per patient treatment costs and a cost-benefit ratio for experimental group patients' treatment as compared to that for control group patients. Finally, the data review for the latter, along with periodic brief interviews with their therapists, also allowed us to monitor their course of treatment and their referral to and use of community resources, all of which will be described in the following chapter.

The study subject interviews, as per McFarlane, were conducted in an interrupted time series. After an initial, baseline interview, held with patients and parents at the time of each patients' discharge from his/her indexed hospitalization, four subsequent interviews were held at six month intervals with all patients, and two at one year intervals with parents. It should be noted that experimental group patients' and parents' follow-up interviews were carried out six months and one year, respectively, subsequent to the PsychoEducational Workshop and the commencement of the PEMFT sessions. This was to allow the data collection from experimental group subjects to coincide with the two-year course of PEMFT so as to measure its full impact.

MEASUREMENT SCHEDULE

MFSDP

Figure 3.

TASK	INSTRUMENT	TIME TABLE
Patients' positive symptomatology	Psychiatric Rating Scale (PRS)	At hospital discharge, 6, 12, 18, 24 months
Patients' negative symptomatology	Schedule for the Assessment of Negative Symptoms (SANS)	At hospital discharge, 6, 12, 18, 24 months
Family members' levels of emotional reactivity	Social Adjustment Scale, III (SAS)	At entry into Project, 12, 24 months
Family members' assessments of patients' social functioning	SAS, III	At entry into Project, 12, 24 months
Treatment cost-benefit analysis	Treatment Control Reports	Monthly and quarterly

Consequently, first follow-up interviews for experimental group patients were conducted six to nine months subsequent to an individual patient's discharge/baseline interview, and twelve to fifteen months subsequent for their parents. Correspondingly, experimental group subjects' tenure in the Project ranged from twenty-four to twenty-seven months. This is, of course, in contrast to control group subjects, who were interviewed as planned at the scheduled six and twelve month intervals and none of whose tenure in the Project exceeded twenty-four months.

Nonetheless, data for both groups is reported in tables in Chapter IV under "one year" and "two year" headings to permit comparison of the two groups. Only in the tables concerning treatment service utilization is each patient's precise tenure specified. It will also be noted that, again for purposes of comparison, only "first year" and "second year" data for patients and parents are reported in Chapter IV. This is consistent with the findings of Anderson, Hogarty and colleagues (1986), where the first year post-discharge is considered the time of greatest vulnerability to stress and relapse for all patients and the second year that of greatest functional improvement for those receiving psycho-educational family treatment. However, six month patient outcomes are reported in Figures 6 and 7 in Chapter IV to demonstrate the nature of each patient's course of illness during the Project's two years.

The instruments used to obtain the bulk of the Project data were derived directly from McFarlane, whose Director of Research personally trained our data collectors, the four psychiatrists and four raters, in their use. The first of these, used to obtain data regarding patient symptomatology, is the combined Psychiatric Rating Scale (PRS) and the Schedule for the Assessment of Negative Symptoms (SANS). The former is itself an expanded version of the Brief Psychiatric Rating Scale (Manuzza, et al, 1983; Overall, Gorham, 1962), which contain sixteen items supplemented by ten items borrowed by McFarlane from the Schedule for Affective Disorders and Schizophrenia (SANS) (Endicott, Spitzer, 1978). Each of the twenty-six items represents a psychiatric symptom and is scored on a 1-7 scale measuring the rater's assessments, ranging from "cannot be assessed" or "not observed" to "very severe."

The reliability of the first sixteen items, i.e., those taken from the Brief Psychiatric Rating Scale (BPRS), is consistently high. As cited by Overall and Gorham (1962), inter-rater reliability ranged from lows of .56 and .62 on the "tension" and "emotional withdrawal" items, respectively, to the .86 and .87 attained for "anxiety", "hostility", "guilty feelings" and "hallucinatory behavior".

An equally high and consistent reliability for summary scale scores in the Schedule for Affective Disorders and Schizophrenia (SADS) is reported by Endicott and Spitzer (1978). Specifically, inter-rater procedures showed a reliability of .94 and better for six of the seven summary scores, ranging from .82 for "formal thought disorder" to .97 and .99 for "suicidal ideation and behavior" and "manic syndrome", respectively. Test-retest and internal consistency reliability scores were lower; yet, even here, six of the seven summary scores achieved .58 reliability and higher, with five of the seven at .78 and higher. The one exception on the test-retest and internal consistency procedures proved to be "formal thought disorder", which attained reliability scores of .49 and .47, respectively.

The rate of change in each patients' global or total PRS score, which is the sum of the scores assigned to each item, from the first year to the second and from the beginning to the end of the Project, is reported in Chapter IV for purposes of group comparison. It should be noted that the PRS was also employed to determine patient relapse. As per McFarlane's protocol (1984), a patient was considered to have suffered a clinical relapse when the patient evidenced a frank reemergence or a marked increase in psychotic symptoms, regardless of whether he/she was hospitalized as a result.

Relapse was measured utilizing the PRS as follows:

- a patient score of 5 or more - on a scale of 1-7 - on the psychotic-level items, number 4, "conceptual disorganization", and number 12, "hallucinatory behavior";
- a score of 6 on number 11, "suspiciousness"; and/or
- a score of 4 on number 15, "unusual thought content".

Relapse and its determination will be discussed at greater length in Chapter IV.

The SANS, developed by Andreasen (1982) and revised by McFarlane (1984), consisted of twenty-five items, each of which represents a negative schizophrenic symptom derived from one of five symptom complexes: affective flattening or blunting; anergia; aversion-apathy; anhedonia-associality, and attentional impairment. Similarly to the PRS, each item can be considered a discrete outcome and is scored on a six-point, 0-5 scale, with patient behavior, self-report and report by others rated from "no evidence of ..." to "severe ..." However, the SANS also provides for several types of scores, including global, sub-scale, summary and composite, the first of which or global was to be utilized in our study.

A global rating is contained is each symptom complex, which reflects the overall severity of the symptoms contained therein, with particular weight given to the one or two symptoms which appear most prominent. According to Andreasen, "... the global rating for each of the five symptom complexes will probably provide the best index of the severity of each symptom, whereas the sum of the global ratings (composite score) may be used to assess the severity of the negative symptom syndrome as a whole" (ibid.)

Regarding SANS' reliability, which Andreasen assessed on the basis of inter-rater reliability, all items, including the global ratings in the five symptom complexes, attained scores superior to .701, with fifteen items achieving a reliability of .832 and better.

The combined PRS/SANS was first administered to each patient at the time of discharge from his/her indexed hospitalization by one of the Project's two inpatient psychiatrists and one of the Project raters assigned to work with the patient and his/her parent(s) for the two-year course of the Project. All four subsequent PRS/SANS interviews were to have been administered at six month intervals by either the Project's experimental or control group psychiatrists and the patient's assigned rater. Expedience and a modicum of common sense dictated a change in that procedure.

At McFarlane's Research Director's suggestion, psychiatrists and raters had been paired to enhance inter-rater reliability. How- ever, since the first two rounds of interviews with experimental group patients indicated a complete concordance between psychiatrist and rater scores, and since heavy workloads made conjoint scheduling highly problematic, sole responsibility for conducting the third through fifth PRS/SANS interviews for all patients was assigned to the experimental and control group psychiatrists. This decision was made in consultation with McFarlane's Director of Research.

Another problem that surfaced during the administration of the PRS/SANS interviews by the experimental and control group psychiatrists, requiring additional consultation with McFarlane's Research Director, was the wide discrepancy in their scoring of the SANS. Continued pairing of each with a rater would have probably made little difference, since the latter readily deferred to the psychiatrists' assessment of patient symptomatology. While both psychiatrists' scoring of the psychiatric symptoms specified in the PRS appeared to coincide with clinical observations reported by Project and A.O.S. therapists, the control group psychiatrist's scoring of the SANS negative symptoms seemed comparatively much too low and could not be supported by those same clinical observations. This is probably attributable to the relative novelty of the concept of negative symptoms, compounded by our failure to conduct additional training sessions until inter-rater reliability was achieved. As a result and with the concurrence of McFarlane's Director of Research, all SANS data were disregarded and are no- where reported in our study outcomes.

Our second principal reporting instrument was the Social Adjustment Scale: Family Version (SANS III) (Kreisman, Blumenthal, 1984), administered only to family members at indexed hospitalization discharge and at 12 and 24 months subsequent to it by the family's assigned rater. The SANS was also used by McFarlane, but principally to supplement the findings of the Camberwell Family Interview (CFI) (Leff, Vaughn, 1985). As mentioned above, the CFI was ruled out for our use from the Project's inception as much too costly, since it requires three to six months of fairly rigorous training and ongoing supervision to utilize it properly. It is a highly regarded and internationally applied instrument, designed to measure, via the detailed study of the content of video- or audio-taped family interviews, a family's level of expressed emotion (EE). This is defined, in turn, as the number and intensity of critical comments (CC) directed by family members towards their ill relative and the extent to which they are enmeshed or emotionally over-involved (EOI) with him or her.

The SAS III (Kreisman, Blumenthal, 1984) is similarly well regarded. Embedded in its 160 items is the 45-item Rejection Scale, encompassing items 88 to 132. The Family Rejection Scale was originally developed and can still be utilized as a discrete instrument to measure family members' critical comments (CC) and their emotional over-involvement (EOI) or enmeshment with their ill relatives. It has grown from an 11-item, self-report inventory to its present length, which now requires that it be administered to respondents by an independent rater. Its reliability, as measured by its internal consistency, has also grown correspondingly, from .78, reported when the scale first appeared in 1979 (Kreisman, et al, 1979), to a reliability of .89 (personal communication with Dr. Kreisman, 1984).

The remaining items contained in this structured interview can be used to determine family members' perceptions of their ill relatives' functioning and the extent to which they are satisfied with it or not. In the chapter which follows, the rate of change in the perceptions of experimental and control group parents from the Project's inception to its conclusion are reported over four dimensions - rejection, burden, satisfaction and patient functioning - as is each's "total" rate of change.

E. - DATA ANALYSIS:

Outcome data in all the other areas of concern to us are also detailed in Chapter IV - patient rates of relapse and rehospitalization, patient outpatient medication compliance, patient instrumental and social functioning and their aftercare treatment utilization; and in Chapter VI - the cost of all treatment, inpatient and outpatient, and the cost-benefit ratio for each group of patients.

Since several intervening variables are involved, principally the intra and extra-organizational context in which we functioned and over which we had little control, data in each category is simply listed and compared arithmetically for illustrative purposes. However, in order to determine the statistical probability of our interventions favorably affecting patient symptomatology and family members' perceptions of their ill relatives, we decided to employ two non-parametric statistical tests specifically designed to work with low "N" study populations.

The first is the Mann-Whitney U Test (Pfeiffer, Olsen, 1985) a non-parametric counterpart of the two-sample independent T test. It is utilized when study subjects from two separate yet comparable groups can be rank-ordered in terms of an independent variable, in this instance PEMFT for family members and our psychiatric rehabilitation regimen for patients. It is employed specifically to test the null hypothesis that the two groups do not differ with respect to the dependent variable. In practical terms, the Mann-Whitney is used to measure the differences between groups after one of the two has been exposed to the independent variable and determine whether the size of the difference is statistically significant. This requires that the null hypothesis be not proved, i.e., that the value of the U statistic, which is determined by the number of scores from one group that precede or rank higher than each of the scores of the other group, be higher for the experimental group.

The second is the Wilcoxson Signed-Rank Test (Pfeiffer, Olsen 1985), which is also a non-parametric substitute for the two-sample independent T test and is used to test the null hypothesis that statistically significant differences between experimental and control groups do not exist. It can be utilized when study subjects and their outcome scores of the two-sample populations can be paired and when the paired scores are provided from the same subjects who have been tested before and after the introduction of an independent variable. It serves to determine both the direction and the size of the differences between paired subjects and out-comes.

It was to be used in our study to test the null hypothesis that treatment outcomes from PEMFT and psychiatric rehabilitation participants would be the same as those for control group members, who would undergo standard treatment regimens. However, since statistical probability of <.05 and <.01 was achieved on all outcome measures by utilizing the Mann-Whitney U Test, and as the next section will demonstrate, too many intervening variables confounded the appropriate matching of experimental and control group subjects, the Wilcoxson was not used in our outcome data evaluation.

As per the foregoing, the outcome data collected were used to determine the impact of our treatment intervention on Project participants in terms of the several treatment outcomes or dependent variables posited in our hypotheses: patient symptomatology; patient relapse and re-hospitalization; patient treatment compliance; patient social functioning; and family members' sense of burden, rejection of patients, and estimation of patients' functioning.

The data were also used to measure the changes experienced by each Project participant at each of our stipulated six and twelve month intervals. The two figures that follow illustrate both processes.

IMPACT OF THREE-PART TREATMENT INTERVENTION

Figure 4.

	OVER TIME - INTERRUPTED TIME SERIES MEASUREMENTS					
RANK ORDER OF EXPERIMENTAL AND CONTROL GROUP MEMBERS IN TERMS OF EACH OUTCOME VARIABLE	0 months	Hospital Discharge	6 mos.	12 mos.	18 mos.	24 mos.
	1st		CHANGE IN			
	2nd	RANK ORDER OF EXPERIMENTAL - VS - CONTROL				
	3rd		GROUP MEMBERS OVER TIME			
	4th					
	Etc.					

INDIVIDUAL TREATMENT OUTCOMES

Figure 5.

CHANGE OVER TIME - INTERRUPTED TIME SERIES MEASUREMENTS						
EACH PROJECT PARTICIPANT IN TERMS OF EACH OUTCOME VARIABLE	0 months	Hospital Discharge	6 mos.	12 mos.	18 mos.	24 mos.
	1		STATISTICAL			
	2		CHANGE			
	3		FOR			
	4		EACH			
	Etc.		OVER TIME			

CHAPTER IV

STUDY OUTCOME DATA

In this chapter, data for both experimental and control groups will be reported regarding the following: the course of patients' illnesses over the Project's two years; patients' rates of relapse and rehospitalization; patients' rates of change in psychiatric symptomatology; their instrumental and social role functioning; medication compliance; outpatient treatment compliance and treatment service utilization; and, finally, the rates of change of family members' perceptions of their ill relatives.

The data verify the positive impact of our treatment interventions on the experimental group patients, particularly that of PEMFT on experimental family subjects, and essentially validate the several hypotheses posited at the Project's outset. However, patient subjects' outcome data concerning relapse and re-hospitalization rates do not conform to the outcomes reported by the principal psychoeducational family investigators in the United States.

Falloon and colleagues (1984) reported an 8% relapse rate at one year and 17% at two years for 18 family-treatment patients as opposed to one- and two-year relapse rates of 54% and 83%, respectively, of 18 individually treated patients. Anderson, Hogarty and colleagues (Hogarty, et al, 1986) reported one-year relapse rates of 19% for family-treated patients, and 0% for family-treated patients who also received social skills training, as compared to a 41% relapse rate of 29 individually treated patients. In yet another study, they reported two-year relapse rates of 26% for family-treated patients (Anderson, et al, 1986). Finally, McFarlane, issuing the first results of his state-wide study, reported two-year relapse rates of 16.3% for PEMFT participants and 25.6% for PESFT subjects (McFarlane, et al, 1991). The latter results are virtually identical to those of the Anderson/Hogarty study.

In contrast, three experimental group patients relapsed and required hospitalization during our study's first year, as compared to only one control group member who suffered a relapse but did not need to be hospitalized. During the second year, one of those experimental patients also experienced two additional relapses and hospitalizations, as did one other experimental group patient, while three control patients relapsed and had to be hospitalized, two on three separate occasions. Such statistics certainly do not support the above-stated contention concerning the effectiveness of our tri-partite treatment regimen.

However, it must be noted that these relapse rates reflect our broad application of the term, with relapse defined as a frank re-emergence of psychotic symptoms as measured on the Psychiatric Rating Scale (PRS), regardless of its duration. When a "seven-day" relapse criterion is employed, i.e., the persistence of newly emerged psychotic symptoms for seven or more days, our relapse rates drop accordingly to one patient per cohort in each of the two Project years. As per McFarlane, the seven-day criterion is that utilized by the above-mentioned psychoeducational family investigators to define relapse (ibid., page 8). Experimental and control patients' relapse data as per both criteria, "broad" and "seven-day", will be reviewed in Section B of this Chapter.

In addition, our relapse and re-hospitalization data, whose import will be described in greater detail below, offer testimony to the highly idiosyncratic and often very painful paths followed by all patient study subjects during their two years involvement with us. It is the intent of this and the following chapter to clearly depict the individual Project careers of both experimental and control patients, particularly the former, as well as to present sufficient evidence to support our study's hypotheses.

A.- COURSE OF ILLNESS:

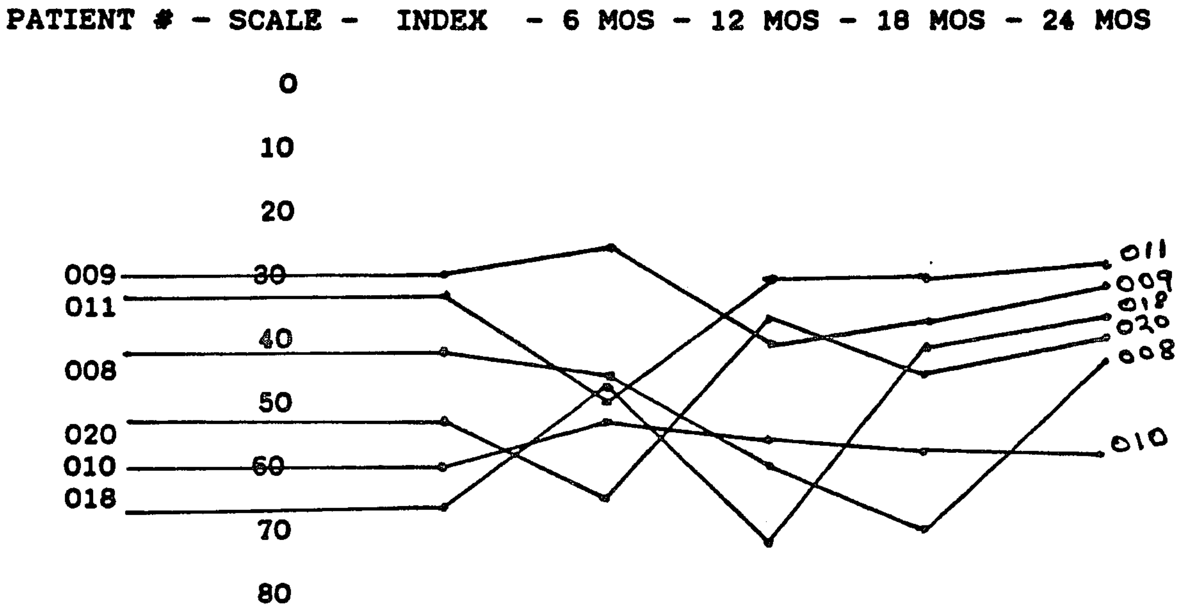
The highly individualized responses of Project patients to both the exigencies of their illnesses and to the treatment they received are well illustrated in the erratic two-year patterns of symptom amelioration and exacerbation depicted for each in Figures 6. and 7. below.

In his longitudinal study of patients diagnosed with schizophrenia over a span of 35 years, Bleuler writes of the undulating nature of the course of their illnesses (Bleuler, 1978). While the duration of time between each rise and drop in symptomatology differed for each individual, all experienced periodic fluctuations as their illnesses waxed and waned. Mendel (1989), reviewing his long clinical experience, states that these undulations in illness severity not only correspond to the presence or absence of a wide array of life stressors, but are often primarily a function of the schizophrenia itself and its underlying genetic and biological processes. Appropriate treatment cannot put an end to this process, but rather as Hogarty, et al (1986), argue, only interrupt or forestall its inexorability.

The five periods delineated in the figures below, "index" through "24 months," correspond to the five PRS interviews conducted with each patient, with the severity of psychiatric symptomatology signified by the score assigned, i.e., the

PRS SCORES - EXPERIMENTAL GROUP

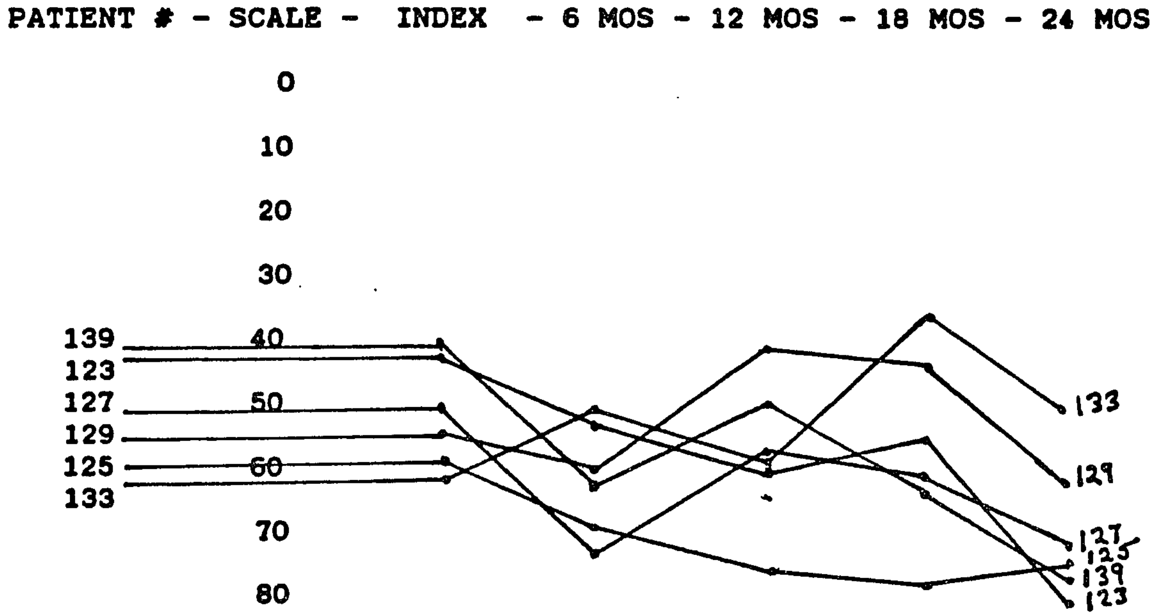
Figure 6.



Summary - As per Bleuler(1978), 4 of 6 = UNDULATING COURSE.

PRS SCORES - CONTROL GROUP

Figure 7.



Summary - As per Bleuler(1978), 4 of 6 = UNDULATING COURSE.

higher the score the more severe the symptoms. It should be noted, first, that the initial rank order of patients in both groups, which is based on scores achieved in their initial or "index" interviews, fluctuates over two years and is thoroughly altered, particularly as regards the controls, by the time of their final or "24 month" interviews.

As per Strauss and Carpenter (1979), severity of symptoms during a hospitalization and their sequelae immediately subsequent to it are not predictive of short- or long-term outcome. The latter is more heavily influenced by an individual's pre-morbid functioning, the life stressors he/she experiences, and the personal skills and social support he/she can muster in response.

The second noteworthy phenomenon is that all sharp downturns, i.e., symptoms exacerbations, are largely a consequence of study patients' treatment non-compliance, particularly as regards medication. Treatment noncompliance, in turn, appeared to be the result of intrapsychic emotional processes on the part of Project patients, indicative of either their ambivalence towards treatment, lack of or loss of faith and hope in its immediate and/or eventual efficacy, and lack or loss of trust in the treating professionals.

Life stressors experienced either immediately before the Project commenced or during its course appeared to adversely affect four patients, three control and one experimental. The first, identified by Project number 139, experienced a sharp downturn at the twelve-month mark when he found out that his brother, an ex-I.V. heroin addict with whom he had shared needles, had died of AIDS, and that he, himself, was H.I.V. positive. He became intermittently depressed and psychotic, particularly the former, stopped appearing at the C.M.H.C. for his Haldol Decanoate injections, and was hospitalized three times in less than nine months.

The second was the patient identified by Project number 133. His relative medication compliance - he missed only one Prolixin Decanoate injection at twelve months, which coincided with symptom exacerbation and a brief hospitalization - was offset by his increased use of crack during and up to his inpatient hospitalization at 13 months. His drug use, however, appeared to be his attempt to cope with feelings of depression occasioned by the death of his father six months prior to his admission to the Project.

Another control group patient, Project number 127, who remained treatment compliant throughout, experienced a sharp exacerbation of symptoms at six months - a combination of visual hallucinations and perceptual distortions - when her 81 year old father had his foot amputated as a consequence of long-term diabetes. When he returned home after surgery, she felt obliged to devote increasing amounts of time to helping her 75 year old mother care for him.

Finally, one experimental group patient, Project number 009, was initially able to channel his upset and anger at his mother's decision to retire from her job and move away from Brooklyn and from him to live with her married daughter in New Jersey, and to find a single-room apartment for himself. After six months, however, his usual patterns of therapist mistrust and treatment noncompliance began to reassert themselves, leading to a sharp exacerbation of symptoms at twelve months and hospitalization at fourteen.

The symptom exacerbations/downturns of the remaining experimental and control group patients can be broadly attributed to one of two primary factors: their struggles to regain and maintain normative functioning - patients 011, 020, and 129; and the gradual wearing down produced by the illness itself - 008, 010, 018, 123 and 125. Of this group of eight, the following should be noted: 011, 020, 129 and 018 experienced undulating courses of their illnesses during the Project's two years; 008, 010, despite showing overall improvement, and 123 and 125 essentially deteriorative courses. Further, 010, 018, and 123 and 129 remained medication compliant throughout the Project, joining 127 as the only patients to do so.

In actuality, all control group patients, with the modest exception of 125 and his slight upturn, show downturns and symptom exacerbations at the Project's conclusion. Further, the final PRS scores of all control group patients, save one, are higher than their initial scores, indicating higher levels of psychopathology at the Project's conclusion. In contrast, five of the six experimental patients, with the exception of 011, ended the Project on an upward note, with all, including 010, showing either decreased or only slightly greater levels of psychopathology than they did when admitted to the Project. This clear divergence in outcomes evidenced by each group would appear to attest to the efficacy of our three-part treatment intervention.

In conclusion, however, one caveat needs to be offered. Schizophrenia's short-term volatility and unpredictability, as depicted in this section, together with the acknowledged limited effectiveness of any treatment intervention (Hogarty, et al, 1986), could conceivably have produced contrary results if the Project had been extended another six to twelve months.

B. - RELAPSE AND REHOSPITALIZATION:

Success in clinical research projects with severely and persistently mentally ill individuals is usually equated with the effectiveness of the treatment intervention under investigation in helping study subjects avoid relapse and re-hospitalization. If the MFSDP were to be assessed solely on the basis of those outcome criteria, it would have to be judged a failure.

Whether a broad relapse criterion is used, i.e., with relapse defined as a return of psychiatric symptoms to psychotic levels, or the seven-day criterion employed by McFarlane and the other PEFT investigators, our patient relapse rates are higher than theirs. Specifically, as per the seven-day criterion (c.f. Tables 7. and 8. below), two or 33.33% of our experimental patients relapsed over the course of two Project years. This is twice the rate of McFarlane's PEMFT patients - 16.3% over two years - and greater than his and Anderson/Hogarty's PESFT patient subjects, 25.6% and 26.0%, respectively (McFarlane, et al, 1991; Anderson, et al, 1986).

Within our own study, seven-day relapse rates for experimental and control patients are identical, indicating no apparent difference between the treatment interventions received by each cohort in affecting relapse. However, it should be noted

RELAPSE RATES - SEVEN-DAY CRITERION

EXPERIMENTAL PATIENTS

Table 7.

YEAR	PATIENT	AGE	SEX	LENGTH OF RELAPSE
1ST	009	29	M	14 days +
2ND	008	31	M	12 days; 14 days +

CONTROL PATIENTS

Table 8.

YEAR	PATIENT	AGE	SEX	LENGTH OF RELAPSE
1ST	127	42	F	14 days +
2ND	123	41	F	10 days

that our control group patients' relapse rate is considerably below the two-year relapse rates for control or individually treated patients of 83% in Falloon's study (Falloon, et al, 1984) and 41% in Anderson/Hogarty's (Anderson, et al, 1986). Possible explanations for this will be offered at the close of this section.

When the broad relapse criterion, whose application will be explored in greater detail below, is applied, relapse rates for both our experimental and control cohorts double to 66.7% (c.f Tables 9. and 10. below). This compares unfavorably to two-year rates of any duration - i.e., "broad" criterion relapse - for McFarlane's PEMFT patients of 28.9% and PESFT patients of 40.2%. Nonetheless, to determine the effectiveness of our treatment intervention principally on the basis of this admittedly crucial outcome measure is to assess it too narrowly and to ignore the following:

1.- The idiosyncratic, highly individualized course of illness and rehabilitation of severely and persistently mentally ill individuals in general and MFSDP experimental group patients in particular. To repeat the contentions of Weiss (1989) and Mendel (1989) stated earlier, large research projects pay little attention to this matter of individual differences, which tend to wash out or disappear in large studies.

2.- The relapses and re-hospitalizations of experimental group patients, three of which occurred during the Project's first year and a fourth at the beginning of the second, proved highly functional and contributed greatly to their eventual treatment compliance and improvement in social role and instrumental functioning. It is particularly noteworthy that, while the three first-year relapses suffered by the experimental cohort directly contradicted the findings of

Falloon, Anderson/ Hogarty, et al, and McFarlane, the great progress made by experimental patients in the Project's second year, when the full impact of our interventions began to be manifest, are fully consonant with them.

3.- There are other, equally important outcomes by which success or failure can be measured. One of these is the interval between hospitalizations and relapses. If, as per Hogarty, et al (1986), relapses with severely and persistently mentally ill individuals are inevitable and can at best be forestalled, then to increase the intervals between them is to expand a window of opportunity during which symptoms can remit, functioning improve and new skills be learned.

Still another key outcome measure is social and instrumental functioning. In a survey whose results were recently published in the Psychosocial Rehabilitation Journal (Cnaan, et al, 1989), professional practitioners endorsed several principles as crucial to the process of psychosocial rehabilitation - emphasis on client strengths and the here-and-now; client self-determination and normalization; emphasis on client employment; and equipping clients with new skills.

RATES OF RELAPSE & RE-HOSPITALIZATION - BROAD CRITERION

Experimental Group Patients - Table 9.

	RELAPSES			RE-HOSPITALIZATIONS			PREV.
AGE-SEX	#	LENGTH	INTERVAL*	#	LENGTH	INTERVAL*	MEAN
31 - M	1	6 days	3.5 mos.	1	57 days	3.5 mos.	16 mos. (4mos.)
	2	12 "	18.5 "	2	11 "	18.5 "	
	3	14+"	25 "	3	66 "	25 "	
29 - M	1	3 "	14 "	1	22 "	14 "	6 "
38 - F	0	N.A.	N.A.	0	N.A.	N.A.	7 "
28 - F	1	2 "	3 "	1	14 "	3 "	8 "
25 - M	0	N.A.	N.A.	0	N.A.	N.A.	7 "
29 - M	1	14+"	6 "	1	122"	6 "	20 "
MEAN	1	8.5"	-	1	48.6	12.7 "!	8.6 "

Control Group Patients - Table 10.

	RELAPSES			RE-HOSPITALIZATIONS			PREV.
AGE-SEX	#	LENGTH	INTERVAL*	#	LENGTH	INTERVAL*	MEAN
41 - F	1	10 days	16 mos.	1	14 days	16 mos.	8 mos.
	2	4 "	23 "	2	22 "	23 "	
	3	5 "	25 "	3	21 "	25 "	
34 - M	1	3 "	20 "	1	15 "	20 "	13 "
42 - F	1	14+ "	6 "	0	N.A.	N.A.	50 "
27 - M	0	N.A.	N.A.	0	N.A.	N.A.	17 "
29 - M	0	N.A.	N.A.	1	10 "	13 "	11 "
35 - M	1	2 "	15 "	1	12 "	15 "	10 "
	2	3 "	21 "	2	19 "	21	
	3	0 "	23 "	3	29 "	23 "	
MEAN	1.3	5.9 "	-	1.3	17.9"	11.6"!	18 " (11.8)

(* = Interval from indexed hosp.; ! = interval between hosps.)

Tables 9. and 10. enumerate the broad criterion relapses and rehospitalizations experienced by each patient in each cohort and specify the interval that elapsed between it and the patient's indexed hospitalization. Other tables in a subsequent section will compare the social and instrumental role achievements of both cohorts.

In both the Maimonides and McFarlane studies, broad criterion relapse, i.e., relapse of any duration, is defined as a sharp exacerbation in a study patient's psychotic symptoms, often requiring his/her hospitalization. In the MFSDP, relapse was determined to have occurred when a patient registered an increase in the numerical score of one or more of the four psychotic items found in the PRS - conceptual disorganization, hallucinatory behavior, suspiciousness, unusual thoughts - relative to the scores achieved on those same items during his/her initial PRS interview.

As per the Project's protocol, once a frank emergence of symptoms was observed in a patient by family members, Project therapist or psychiatrists, the patient and family were interviewed by therapist and psychiatrist to determine the appropriate crisis intervention. This could include psychosocial measures with the patient and/or family to reduce stress, an increase in the patient's medication, or hospitalization. The severity of the relapse was determined in a series of one to four brief interviews conducted over a two week period by a Project psychiatrist subsequent to the onset of relapse and the application of the particular intervention. The longer the symptoms persisted at a psychotic level, the more severe was the relapse considered.

As mentioned earlier, four experimental patients experienced broad-criterion relapses, which lasted for periods of two days to two and more weeks. Three of these patients relapsed within six months of discharge from their indexed hospitalizations. All three also required re-hospitalization when they relapsed, with hospital stays lasting from 14 to 120 days. Of these three, one - the only experimental patient to do so - experienced two more relapses and re-hospitalizations, at 18.5 months and 25 months subsequent to discharge from his indexed hospitalization. The fourth experimental group patient to relapse did so at the 14 month mark. His relapse persisted for 3 days and his hospitalization lasted 22 days.

Regarding their relapse and re-hospitalization experiences, the following is noteworthy:

1.- The three first-year relapses and the fourteen month relapse experienced by the four experimental patients were integral to the process of treatment engagement which each underwent. Three of the four never relapsed subsequent to their re-hospitalizations, became treatment compliant thereafter and improved dramatically in terms of their social and instrumental functioning. This conforms to McFarlane's principal clinical finding, viz., that the impact of PEMFT increases over time, effecting corresponding decreases in patient relapse and re-hospitalization (McFarlane, et al, 1991).

Through the time of their relapses, all four had been recapitulating the same behavior they had exhibited during much of their previous treatment careers - they were suspicious, untrusting, gradually began cutting back on their prescribed medications and missing their individual appointments and/or days in one of the aftercare programs. Eventually they relapsed. By their own accounts, their decisions to become treatment compliant and engage in treatment relationships with their Project therapists and psychiatrists were based primarily on what they learned from observing and talking with one another both within and outside of PEMFT sessions. That, coupled with the warm support they received from PEMFT family participants and the psychoeducational information regarding illness management they had been hearing from Project professionals, and underscored by the jolt they suffered at being re-hospitalized, apparently convinced them to make the decisions they did.

The first hospitalization of the experimental patient who suffered three relapses also had a salutary impact on him, but for somewhat different reasons. Similarly to the other three, he had recycled old behavior prior to his first relapse. He had returned home after promising his mother to adhere to his aftercare treatment plan, had immediately retreated to his room and his bed, and soon thereafter discontinued his medication. When he became sexually delusional regarding his mother, threatening to assault her, he was hospitalized at her request. At this point, however, she refused to have him return home and insisted he be placed in a adult proprietary home.

Given his ambivalence, his placement became problematic, eventually occasioning a one week transfer to South Beach Psychiatric Center (S.B.P.C.) . When his entreaties to his mother to return home persisted, she relented and he was discharged back to the three room apartment they had shared for 20 years. However, the patient was so taken aback by his mother's resolve, albeit short-lived, to have him removed from the house should he assault her, that he became treatment compliant for more than a year.

While he relapsed and was re-hospitalized at 18.5 months and 25 months, he at least broke for that year-plus period the cycle of relapsing every four months that had begun two years prior to his Project admission. Unfortunately, for him, he was extremely sensitive to neuroleptic medications, experiencing severe side effects at even low dosages and could not be maintained on depot medications. Consequently, his medication compliance, always suspect, declined over time, contributing to increased reclusiveness on his part and eventual relapse.

2.- While the intervals between relapses and re-hospitalizations were greater for experimental group patients, so was the length of relapses and re-hospitalizations. Much of this owed to the relationships which my co-therapist and I had established with the treating staff of both inpatient units, which afforded us considerable leverage in securing inpatient admission for our experimental patients and determining their length of stay.

Another contributing factor was our willingness to hospitalize experimental patients at their families' request. We were guided here by our practice principle that it was the responsibility of mental health professionals and their agencies to relieve families of the burden of caring for their relatives when they became ill. It must be emphasized, however, that this practice of prompt hospitalizations was made possible only because of our ability to monitor patient psychopathology and family capabilities and stress levels via our regularly scheduled individual and PEMFT sessions and the close working relationships we eventually formed with patients and their families. Interestingly, McFarlane, et al (1991) report experiences regarding first-year hospitalizations of study subjects similar to our own and cites the importance of therapist-family collaboration.

In my estimation, none of these hospitalizations was unnecessary since all the patients involved in them were experiencing an upsurge in symptoms and respite was provided to both patient and their families. However, respite in at least two instances could have been obtained other than on an inpatient unit if an alternative facility to provide such respite had been available. Nonetheless, three of the hospitalizations were exceptionally long, two of them unnecessarily.

Specifically, one experimental patient was hospitalized for 120 days and experienced a relapse in excess of 14 days essentially because he refused all medications. While this was certainly his right, the staff of the agency's private inpatient unit, where he was hospitalized, delayed almost three months before bringing him to a mental health services hearing and securing a judicial order requiring that he accept prescribed medications. If the staff had done so earlier, as my co-therapist and I began urging them to do one month into his hospitalization, his hospital stay would have been considerably shorter. As it was he remained in the hospital an additional thirty days subsequent to his court appearance. Fortunately, he, like his two other colleagues, became medication and treatment compliant from that point on and was soon able to return to Fountain House, one of his principle goals.

The hospitalization experiences of the experimental patient who relapsed on three occasions were somewhat different. His first hospitalization, which lasted for 57 days and began in the C.M.H.C. inpatient unit and ended in S.B.P.C., was extended, at least in part, because of the gross inadequacy of the proprietary homes which were willing to accept him. Those with more adequate facilities and programs would not accept him because he was "too regressed," i.e., reclusive and apathetic and exhibiting schizophrenic negative symptoms. If a State-funded residential care (RCCA) facility had existed in Brooklyn- none of which did at that time - which facilities are purposely designed to accommodate individuals like him, the patient conceivably could have been persuaded to accept placement. As it was, his mother balked and lost her resolve when she visited one of the proprietary homes to which the patient was being "transitioned" by S.B.P.C., and the patient returned home.

In contrast, his third hospitalization, which lasted for 66 days and was occasioned by a two-week-plus relapse, was the culmination of an eight month-long process of deterioration, that itself had been interrupted to little effect by an 11-day hospitalization at the 18.5 month mark. Given his sensitivity to neuroleptic medications and the deleterious effect of his steady deterioration, he remained mute, reclusive, and almost catatonic for most of his third hospitalization, recapturing some of his functioning only during his last two weeks on the unit.

He was the one experimental patient who appeared not to benefit from his two year-experience in the Project. He has since been referred to the new State ICM program and is a client of the S.B.P.C. team.

3.- The two patients in the experimental cohort who did not relapse were also the two who remained medication and treatment compliant throughout the course of the Project. In this aspect, they are representative of the classic patients described by Hogarty (Hogarty, et al, 1973, 1974a, 1974b), viz., patients receiving a family-focused treatment intervention who are treatment compliant and do not relapse over the course of two years.

One of the two, a 38 year old woman, had averaged one hospitalization every seven months during her fourteen years pre-Project treatment career. The Project's message appeared to strike a chord of hope in her, she connected well with her Project therapist, my co-therapist, and stayed engaged in treatment throughout. Interestingly, she was the only experimental patient never to attend at least one PEMFT session, remaining too anxious and suspicious to do so. Her parents, on the other hand, were regular PEMFT participants.

The second treatment compliant patient was a 25 year old man who had averaged one hospitalization every seven months during his five year pre-Project treatment career. While he missed one of every two individual sessions with this writer, and one of every two PEMFT sessions, he rarely missed medication evaluation appointments with the Project psychiatrist. On those few occasions when he did, he promptly re-scheduled an appointment within less than a week's time. All these patients and their Project careers will be described in greater detail in the Chapter that follows.

Regarding the control cohort patients, five of the six experienced either relapses or required hospitalization during the course of the Project, with all but one of the relapses and all hospitalizations occurring in the second year. This largely conforms with the findings of Falloon, et al (1984) and Anderson/ Hogarty (1986), where the great majority of all control subjects, whether medication compliant or not, relapsed before two years.

The one control group patient who relapsed in the first year did so at six months and largely in response to her father's surgery, with its attendant obligation that she devote much of her time to helping her mother care for him. While she did not require hospitalization, she experienced visual hallucinations and perceptual distortions that persisted to the Project's conclusion and beyond. She was one of the three control group patients who was medication and treatment compliant throughout the length of the Project.

Two of the control patients who relapsed in the second year, the 41 year old woman who suffered three relapses and hospitalizations between 16 and 25 months, and the 35 year old man who experienced relapse and hospitalization at 20 months, did so largely as a consequence of the deteriorative impact of their illnesses. As per Hogarty, et al's (1973, 1974a, 1974b) findings, the latter relapsed despite his Project-long medication compliance. The former essentially re-cycled her customary behavior, gradually decreasing and then discontinuing her medication and her outpatient clinic visits over the course of the Project's first year.

The other control patient who relapsed, the 35 year old ex-heroin addict, suffered two relapses and hospitalizations at 15 and 21 months, and a third hospitalization, for non-psychotic depression, at 23 months. All relapses and hospitalizations were largely related to his despondency over his brother's death and his awareness that he was H.I.V. positive.

A fifth control patient was hospitalized for 10 days at 13 months as a consequence of conflict with his mother and oldest sister over his continued crack abuse. His hospitalization was due not to any major exacerbation of psychotic symptoms and relapse but was carried out in order to give all three parties some respite. The experience nonetheless proved beneficial for him. Shortly thereafter, he resumed his Prolixin Decanoate injections, which he had declined to take one month prior to his hospitalization, stopped his crack abuse and pursued admission to an OVR-sponsored vocational rehabilitation program. While he managed to enter such a program several months later, he was able to maintain involvement for only three months. This contrasted sharply with the three experimental patients, two of whom enrolled in Kingsboro Community College and one in Fountain House's Transitional Employment Program, who were given much support and encouragement by one another and the members of the PEMFT group.

The remaining control group member, a 27 year old man who remained medication and treatment compliant throughout and never relapsed, experienced similar problems in sustaining his involvement in an agency-sponsored tutorial program. He, however, was well connected to an individual therapist, whom he saw regularly, and was able to obtain his GED and enter an OVR-sponsored training program. By the time of the Project's conclusion, he had attended the program four months and was experiencing difficulty maintaining regular attendance.

Despite the foregoing, five of the six control patients appeared to have experienced overall improvement, at least in terms of the increase in the intervals between their relapses and rehospitalizations. It could be argued that this improvement is attributable to one or more of the following factors:

- The Hawthorne effect consequent to their participation in the MFSDP and their receipt of special attention. No control group patient ever forgot that he/she was involved in a study or failed to keep scheduled PRS interview appointments. Indeed, one control patient suggested that he and all other participants receive diplomas or certificates of recognition at the Project's completion, which suggestion was actually complied with.

- The six joining sessions which each had with this writer during the course of their admission to the Project. As observed earlier, Goldstein and Kopeikin (1981) claimed a strong six-month effect for this type of intervention.

- The additional attention afforded them by the Project's control group psychiatrist, with whom at least four of the six developed excellent treatment relationships.

The salutary impact of these factors should in no way be construed as diminishing the effectiveness of our three-part experimental treatment intervention, but rather as being indicative of the positive response severely and persistently mentally ill individuals will make if given appropriate attention.

C. - <u>PSYCHIATRIC SYMPTOMATOLOGY</u>:

Since one of the aims of this study is to assess the impact of our three-part treatment intervention on severely and persistently mentally ill individuals diagnosed as having schizophrenia, a more accurate measurement would be obtained by determining the extent to which their psychiatric symptomatology had ameliorated or recrudesced over their two-year Project careers. Accordingly, the raw scores attained by experimental and control patients on their PRS interviews are

RATE OF CHANGE - PSYCHIATRIC SYMPTOMATOLOGY

PRS Scores - Experimental Group

Table 11.

PATIENT #	INDEX->1ST YEAR	1ST->2ND YEAR	INDEX->2ND YEAR
008	+39.5%	-28.3%	0.0%
009	+59.3%	-27.5%	+12.5%
010	- 3.5%	+ 5.1%	+ 1.8%
011	- 9.1%	+ 3.3%	- 6.1%
018	+ 3.1%	-22.4%	-20.0%
020	-17.4%	+13.2%	- 6.5%
MEAN	+11.9%	- 9.4%	- 3.1%

****

PRS Scores - Control Group

Table 12.

PATIENT #	INDEX->1ST YEAR	1ST->2ND YEAR	INDEX->2ND YEAR
123	+38.1%	+32.8%	+83.3%
125	+31.0%	- 6.6%	+22.4%
127	+ 2.0%	+34.6%	+35.3%
129	-27.6%	+47.6%	+ 6.9%
133	- 9.8%	-12.7%	-21.3%
139	+25.6%	+48.9%	+87.2%
MEAN	+10.0%	+24.1%	+35.6%

ANALYSIS: $U = 6$ $U = 7$

$P < .05$ $P < .05$

not listed and compared in the tables above, but rather the rates of change achieved by each from time of index or initial interview to one year, from one year to two, and from index to final interview at two years.

It should be noted, however, that the raw scores on the PRS for control group patients were consistently higher than those of experimental group patients throughout the two years, denoting a higher level of psychopathology. This is probably attributable to the greater chronicity of the control group, i.e., control group patients' longer histories of treatment and illness.

From the period "index to first year," our intervention shows no effect, with the mean score for psychiatric symptomatology for the experimental patients showing an increase actually higher than that for the controls, +11.9% as compared to +10.0%. Closer examination, however, does reveal that three experimental as opposed to two control patients experienced an amelioration of symptoms during that first year.

The treatment intervention's impact clearly registers in the Project's second year, which, again, corresponds to McFarlane, et al's findings (1991). The PRS scores for "first to second year" show a mean improvement of -9.4% for experimental patients, in contrast to +24.1 % for controls (Mann-Whitney U score equals 6, $p < .05$).

During this period, three experimental patients showed sharp decreases in symptomatology, two showed little change, registering only modest increases, and one evidenced a moderate increase. This last patient, identified as 020, was participating in Fountain House's TEP program at the time. The increase in symptoms he experienced did not interfere with his participation and is probably attributable to the additional stress his TEP job and his daily subway commute into Manhattan brought him.

Four control patients experienced sharp increases in symptomatology, while only two had modest to moderate drops during this same period. The great discrepancy between the two groups is indicative, on the one hand, of the power of the intervention to promote salutary changes for the experimental cohort and, on the other, of the inability of the control patients to ward off the effects of their schizophrenia and the stress of day-to-day living without the appropriate therapeutic support.

Although the intervention's full force might not have begun to be felt until the Project's second year, the clear disparity between the two groups holds statistically for the entire two years. For the period "index to second year," the mean decrease in symptoms for the experimentals is a slight -3.1%, while the control patients register a substantial mean increase of +35.6% (Mann Whitney U score equals 7, p<.05.) These results are very similar to those for the second year alone.

For three of the six controls who experienced great increases, the process of deterioration appeared to accelerate in the second year. As for the fourth who had a significant two-year increase, identified as 125, his symptoms somewhat ameliorated in the second year, probably as a consequence of his hospitalization at 14 months which slowed his overall clinical decline. Control patient 129, who registered a modest overall increase of +6.9%, had the opposite experience, sustaining a sharp symptom upturn in his second year, probably attributable to his effort to obtain his GED and enter a training program. As mentioned in the preceding section, he was having great difficulty maintaining regular attendance in the program by the end of the Project's second year with only his therapist to support him.

The one control patient who experienced a sharp decline in his symptoms, 133, was the individual who had stopped his crack abuse immediately subsequent to his hospitalization at 13 months. While his sensorium cleared and he was able to enter an OVR vocational rehabilitation program, he dropped out after three months, having the effective support of only his Project psychiatrist.

Remarkably, four of the experimental patients showed little change over the course of the Project's two years. Of the two who did, one patient, 009, was functioning at a high level by the Project's conclusion, living in his own single room apartment, attending Kingsboro CC on a part-time basis and holding down a part-time job. His initial or index PRS score had been so low and close to symptom-free that the increase registered over two years represents a combination of residual symptoms from his relapse at the end of his first year and those deriving from the stress of his busy life.

The remaining experimental patient, 018, registered the greatest improvement in this cohort over the two years. On discharge from his indexed hospitalization, he had been the most regressed of the experimental patients, scoring highest in symptomatology on the PRS. His improvement over the two years was steady and solid. He was medication compliant, suffered no relapses and showed marked improvement in his second year when he took a two-month long trip with his parents to visit family in northern Italy. While his greatest desire was to find a job and work, the appropriate program to enable him to do that, viz., a Fountain House-model psychosocial rehabilitation program or a supported employment program, did not exist. By Project's end, he was half - heartedly attending Maimonides Day Treatment program several days a week.

D.- <u>OUT-PATIENT MEDICATION AND TREATMENT COMPLIANCE:</u>

Outpatient medication compliance and psychosocial treatment compliance are essential to successful treatment outcomes (c.f. Falloon, Liberman, 1983a). In the Maimonides FSDP, they functioned interactively as intervening variables with our independent treatment variable. At the same time, they can be considered as outcomes themselves, indicative of the success or failure of the treatment.

The same can almost be said of the nature and amount of psychosocial treatment services utilized by Project patients. The more services used and the more frequently, the greater their contribution to successful treatment outcomes. The more services used and the more frequently the greater the success of the treatment. However, it is essential to distinguish the types of treatment employed and determine the extent of their contribution, if any, to good outcome.

During their two-year Project careers, for example, study subjects, particularly experimental group patients, made great use of the agency's day treatment services, which appeared to do little if anything to promote their rehabilitation. In sum, these services were not cost-effective and had a low cost-benefit ratio.

A discussion of the cost-effectiveness issue will begin in the latter part of this section and continue in Chapter VI. The issue of outpatient medication and psychosocial treatment compliance and their relationship to treatment outcome will be discussed immediately below.

Out-patient medication compliance refers to the period of time, measured here in months, that a patient was not hospitalized in Maimonides or another psychiatric inpatient unit, or did not participate in the C.M.H.C.' partial hospitalization unit. For patients prescribed oral neuroleptic medications, which included at least half the patients in each cohort at any one time, compliance was determined by a combination of patient and family reports and by clinical observations made by Project therapists and psychiatrists. Injectable intra-muscular medications such as Prolixin Decanoate - PRODEC - and Haldol Decanoate - HALDEC - were, by Project's end, being administered to half the patients in each group at weekly to monthly intervals. So long as the patients kept their medication appointments, medication compliance was assumed.

OUT-PATIENT MEDICATION COMPLIANCE

Experimental Group

Table 13.

PATIENT #	ROUTE/MOS.	COMPLIANT/MOS.	NON-COMPLIANT/MOS.
008	Oral/22	14	8
009	Oral/12	9	3
	Haldec/12	12	0
010	Prodec/25	25	0
011	Oral/25	22	3
018	Oral/24	24	0
020	Oral/5	2	3
	Haldec/15	15	0
MEAN	23.3	20.5	2.8

****

Control Group

Table 14.

PATIENT #	ROUTE/MOS.	COMPLIANT/MOS.	NON-COMPLIANT/MOS.
123	Oral/24	8	16
125	Oral/14	14	0
	Prodec/10	10	0
127	Oral/24	24	0
129	Oral/24	24	0
133	Prodec/24	23	1
139	Haldec/22	11	11
MEAN	23.6	19	4.6

In terms of mean outcome data regarding compliance, there exists very little difference between the two groups, whose members were essentially compliant throughout the Project. Members of both groups were prescribed their medications on an outpatient basis for the same average length of time, a little in excess of 23 months, with experimental patients compliant for a slightly longer period of time, 20.5 months versus 19, and, conversely, non-compliant for a shorter period of time, 2.8 months versus 4.6.

This latter is slightly misleading, however, since it is distorted by the non-compliance of the two control members who each experienced three hospitalizations in the Project's second year. More to the point is that three control patients remained compliant throughout the Project, although two of these did suffer relapses and another missed only one PRODEC injection over the course of 24 months.

As previously related, two experimental patients were compliant for the entire Project and three became fully compliant after their relapses and re-hospitalizations. Only one, the most functionally regressed experimental patient at the Project 's conclusion, who was also highly sensitive to neuroleptic medications and their side effects and was consequently difficult to medicate appropriately, was persistently, albeit intermittently, non-compliant.

In sum both experimental and control patients were highly compliant with their prescribed medications. Similarly, McFarlane, et al (1991) report that "medication compliance ... averaged close to 90% for the entire sample across the two years, increasing slightly over that period" (p.15). This is attributed to "involving the family early in the in-patient admission and continuing after discharge ... " (ibid.).

In the MFSDP, several factors could be argued to account for this high medication compliance by experimental and control patients. The first is the Hawthorne affect resulting from their participation in the Project. As mentioned earlier, all study patients, including those in the control group, were very much aware of the additional attention and status their involvement in the Project conferred on them.

The second factor, more important over the course of two years, during which time individuals could be expected to revert to their usual behavior, is the diligence with which Project professionals, with the wholehearted support in the experimental group of PEMFT family members, pursued medication compliance by their patients. Experimental and control patients would be contacted promptly when they failed scheduled appointments and were urged and cajoled to return for a follow-up appointment as quickly as possible. A key difference between the two groups, of course, is that experimental patients and their involved family members were pursued with equal diligence when they failed psychosocial treatment appointments.

Third, and ultimately perhaps most important, the Department of Psychiatry and its professional staff had become quite proficient at employing biological, i.e., medication, and to a lesser extent, socialization interventions with their severely mentally ill patients. A series of reports issued by the Department's Program Analysis and Evaluation Section in 1987 and 1988 (Freier, Hardwick, 1987; Freier, Hardwick, 1988, Hardwick, Freier, 1988), indicated that patient recidivism, i.e., re-hospitalization, had declined markedly during the period 1981-1986. While the reports offered no rationale to account for this achievement, they did reveal a commitment on the part of the professional staff, including social workers and psychologists to employ neuroleptic medications in the aftercare treatment regimens of severely and persistently mentally ill patients and in times of crisis.

Maimonides' CMHC had always had a commitment to community tenure for its severely and persistently mentally ill patients. By the 1980's, the professional staff had apparently become convinced of the key role played by neuroleptic medications in this endeavor. The reports also revealed the staff's reliance on "verbal-supportive" individual psychotherapy and the Department's Partial Hospitalization and Continuing Treatment Programs, in conjunction with prescribed medications, to maintain their patients in the "community," i.e., Maimonides West Brooklyn catchment area. However, this commitment of the part of the staff did not extend to their patients' rehabilitation.

Our observations, which prompted us to initiate the MFSDP, were that this approach worked best with individuals who had accepted a patient role, i.e., tended to be somewhat dependent and do what they were told (c.f. Harris, Bachrach, 1988) and who, at least intermittently, were treatment compliant. Since standard CMHC outpatient/aftercare practice is office- and even agency-bound, staff members cannot pursue severely and persistently mentally ill individuals who reject patient roles. If they could and did, they would have little more to offer recalcitrant individuals than patient roles and patient activities.

The MFSDP was aimed at patients termed "chronic," i.e., who had relatively long psychiatric histories, with numerous hospitalizations. We anticipated treatment resistance and were determined not to be deterred by it. We openly promoted experimental patients' rehabilitation and emphasized treatment compliance and not acceptance of patient role as the key to it. In retrospect, however, we functioned in a manner fundamentally similar to that of our co-workers.

We, too, were office- and agency-bound, i.e., delimited in our activities by intra- and extra-organizational demands. And, while we may have pursued our patients and made home visits, we rarely sought to access resources for our patients beyond the agency in particular, and the mental health system in general. Inadvertently, as a direct consequence of our practice, i.e., our utilization of agency- and system-based resources and our insistence on treatment compliance, we succeeded in socializing most of experimental patients into patient roles. As they struggled to move on, we then found ourselves obliged to help them leave those roles behind.

One result, which is apparent in the tables below, is that our experimental patients made thorough use of Maimonides' treatment services, some of which, particularly the Day Treatment Services, served over time primarily to promote their patienthood and not their rehabilitation. Psycho-social rehabilitation advocates (Beard et al, 1981; Dincin,1975), would, of course, assert that such a tortuous process into and out of patient roles is unnecessary and ultimately detrimental since it often proves totally discouraging to the mentally ill individual. Rather, they advise that such individuals be allowed to enter directly into socially

TREATMENT COMPLIANCE & UTILIZATION OF OUT-PATIENT SERVICES

Experimental Group

Table 15.

	MONTHS		CONTACTS		PEMFT	SFT	INDIV.	MEDS.	E.R./	CASE		
PATIENT #	HOSP.	OPD	TOTAL	AVG/MO	COMP-FAIL	COMP-FAIL	COMP-FAIL	COMP-FAIL	INTAKE	MGMT	H.V.'s	DAY TX./MOS.
008	6	21	159	7.6	24 - 24	64 - 3	23 - 6	50 - 7	1	6	8	7/3
009	1	26	270	10.4	46 - 2	7 - 0	68 - 15	15 - 3	3	12	0	117/13
010	0	26	587	22.6	34 - 14	2 - 0	47 - 0	46 - 0	1	0	0	491/19
011	1	25	365	14.6	41 - 7	5 - 0	81 - 15	16 - 1	3	3	1	205/16
018	0	25	161	6.4	34 - 14	12 - 0	48 - 29	32 - 4	0	1	2	32/18
020	4	20	157	7.9	44 - 4	3 - 0	36 - 1	10 - 0	0	0	2	65/4
MEAN	2	23.8	283.2	11.9	37.2-10.8	15.2-.05	50.5-11.0	28.2- 2.5	1.3	3.7	2.2	152.8/12.2

TREATMENT COMPLIANCE & UTILIZATION OF OUT-PATIENT SERVICES

Control Group

Table 16.

PATIENT #	MONTHS HOSP.	MONTHS OPD	CONTACTS TOTAL	CONTACTS AVG/MO	SFT COMP-FAIL	INDIV. COMP-FAIL	MEDS. COMP-FAIL	OTHER COMP-FAIL	E.R./ INTAKE	CASE MGMT.	H.V.'s	DAY TX./MOS.
123	<2	25	30	1.2	0	5 - 1	17 - 1	0	8	0	0	0
125	<1	24	35	1.5	0	4 - 2	29 - 0	0	2	0	0	0
127	0	24	274	11.4	1 - 0	91 - 1	32 - 2	0	0	0	1	149/24
129	0	24	127	5.3	0	50 - 2	19 - 1	10 - 4 (Tutoring)	2	0	0	46/5
133	<1	24	57	2.4	2 - 0	6 - 0	32 - 0	0	4	0	0	13/2
139	<2	22	53	2.4	0	24 - 8	15 - 4	0	14	0	0	0
MEAN	0.8	24	96	4.0	0.5 - 0	30 - 2.3	24 - 1.3	1.7 - 0.7	4.8	0	0.2	34.6/5

productive roles, however modest, as soon as they are able. In this context, treatment compliance becomes a key to sustaining what they have achieved as well as to further progress.

In the preceding section, it was noted that experimental patients' final PRS scores were not substantially greater than those they achieved during their initial interviews at discharge from their indexed hospitalizations. Since five of the six were functioning relatively well at the Project's conclusion, it could be argued that they could have been engaged in similarly productive activities closer to its outset. Further exploration of this issue will be undertaken in the concluding chapter.

Listed in Tables 15. and 16. are the type and frequency of all Maimonides' out-patient treatment services utilized by all Project patients during the Project's course. The cost of these services and their cost-benefit ratio will be tabulated and discussed in Chapter VI.

As should be evident, experimental group patients and their families had available to them and made use of more treatment services with greater frequency than their control group counterparts. The one exception, which testifies to the Project's effectiveness, is the use of emergency or intake services: the experimental patients had a two-year mean of 1.3 contacts as compared to 4.8 for the controls. The latter figure was, of course, inflated by the control group's two most ill members, who either did not make or failed to keep scheduled appointments with increased frequency during the latter half of the Project.

Not surprisingly, there is a similarity between the two groups in the number of medication visits scheduled, complied with and failed. The greatest discrepancies occur in the area of family-focused treatment - SFT and PEMFT - which were essentially not available to control subjects. Experimental patients also averaged twice the number of individual contacts than control patients, with three of the latter rarely seeing their assigned therapists over the Project's two years. The single greatest discrepancy, at least numerically, is found in the area of day treatment services where experimental patients as a group logged almost five times as many visits as control patients. As stated earlier, this is also the area where benefits to a patient, particularly as regards his or her rehabilitation and restoration to normative functioning, appear to diminish beyond a certain point.

The experimental patient, for example, who was most compliant of all and utilized more services than any other patient in either group, identified as 010, had a total of 587 treatment contacts in Maimonides over her two years. Of these, 491 over the course of 19 months were in the partial hospitalization and continuing treatment services. It is important to note that she rarely missed a day in either program, appearing to enjoy the structured social contact with other patients. However, while she did quite well in both programs, becoming stabilized on her medications in the former and serving as program librarian in the latter, neither was able to help her move closer to her ambition of performing paid or volunteer employment.

In our estimation, she was ready to take the next step toward her goal by no later than her 18th month in the Project and possibly earlier. She had, by then, demonstrated flawless daily day treatment attendance for more than a year as well as an ability to carry out assigned tasks. However, given the mental health system's own lack of commitment to the rehabilitation of severely and persistently mentally ill individuals, the next level of treatment services she required in order to move on, viz., supervised and supportive work experiences, did not exist.

She, of course, was not the only experimental patient to participate in day treatment services. Three other experimental patients also attended the partial hospitalization program. However, their stays were appreciably shorter and, as the following section will attest, more beneficial.

E. - SOCIAL AND INSTRUMENTAL FUNCTIONING:

Of all the outcomes reported so far in this chapter, the data contained in the tables below testify most directly to the rehabilitative power of our three-part patient treatment intervention. It should be noted that our findings once again closely match those of McFarlane, et al (1991), who report 29.8% of PEMFT patients involved in paid employment, mainly in sheltered workshops, at their study's conclusion (p. 16).

As is evidenced in Table 17., not all experimental patients did equally well in terms of their resumption of normative social and instrumental functioning. Five of the six did attend Maimonides' day treatment programs, which indicates both their willingness and ability to be with others. Three of these five, however, made significant functional advances, particularly in their second year of the Project. Two, as the study drew to a close, stated on separate occasions that they had previously given up all hope of ever functioning as normal persons.

The patient identified as 009 was the most successful of all. He was able, shortly before discharge from his indexed

SOCIAL & INSTRUMENTAL FUNCTIONING

Experimental Group

Table 17.

PATIENT #	DAY TX.	TRAINING	EDUCATION	EMPLOYMENT	INDEP. LIVING
008	Accepted-referral	X	X	X	X
009	12 mos.	X	5 mos.*	8 mos.	25 mos
010	25 mos.	X	X	X	25 mos
011	16 mos.	X	9 mos.*	X	12 mos
018	18 mos./- sporadic	X	X	1 mo.	X
020	5 mos.	X	X	10 mos.+	X
MEAN	9.6 mos.	X	2.3 mos.	3.2 mos.	10.3mos

(* = Kingsboro C.C.; + = Fountain House T.E.P.)

****

Control Group

Table 18.

PATIENT #	DAY TX.	TRAINING	EDUCATION	EMPLOYMENT	INDEP. LIVING
123	X	X	X	X	X
125	X	X	X	X	Rarely used
127	22 mos.	X	X	X	Rarely used
129	6 mos.	4 mos.	4 mos.* (dropout)	X	X
133	2 mos.	3 mos. (dropout)	X	X	X
139	X	X	X	6 mos. (sporadic)	X
MEAN	6 mos.	1.2 mos.	.7 mos.	1 mo.	X

(* = CMHC Tutoring Program)

hospitalization, to obtain his own single room apartment. This, of course, was due solely to his own efforts and owed little to his involvement in the Project. He had exhibited spurts of excellent functionality in the past and lived apart from his mother in a supported living situation for several months. However, he was able to maintain himself in his apartment, with occasional monetary support from his mother, for the entire length of the Project.

He attributed his ability to maintain this consistent level of self-sufficiency to several factors:

1.- the feeling of hopefulness initially engendered in him when he agreed to enter the Project;

2.- the ongoing support he received, even when he relapsed, from his family, the PEMFT group members, and the Project's professional staff;

3.- the sharing of information informally, i.e., outside of PEMFT, and other therapy sessions, with other Project patients who he knew to be in the same situation as he.

Prior and subsequent to his relapse and hospitalization at 13 months, he was able to work on a part-time basis, first as a clerk in a Manhattan music shop, then as an escort attendant in Maimonides Medical Center's Emergency Room. The latter job ended when he decided to enroll on a part-time basis in the music program at Kingsboro Community College, encouraged in large part by the example of patient 011, who had enrolled there several months earlier. His aim was to become a professional musician - he is a talented albeit unschooled guitarist. For her part, patient 011 hoped to eventually obtain a B.S.W. and work with retarded children.

Of significance here was not their ability to begin such endeavors. Each in the past had undertaken equally ambitious projects. More importantly, each was able to sustain their initial efforts and for largely the same reasons, viz., the ongoing and unqualified support they received from the individuals enumerated earlier. By Project's end, each had made plans to enroll in Kingsboro the following semester and each actually did so.

Patient 011 was also able to make the long awaited - by her parents - break from them, moving at the Project's 12-month mark into a supported apartment, not too far from her parents' home. She continued to see them on weekends, albeit for increasingly shorter periods of time, and received visits in her new home from the parents of two experimental patients as well as the patients themselves.

The success of these two individuals appeared to have a salutary effect on 020. While he attended only one PEMFT session, he was a patient together with them in the partial hospitalization program for several months and maintained communication with them thereafter. After his discharge from his relapse hospitalization at nine months and a one-month stay in the partial hospitalization program, he returned to Fountain House, where he had had a successful although short-lived experience several years earlier. Within a few months, he was sent on a Transitional Employment Program (TEP) six-month job assignment, which he satisfactorily completed. Whereupon, with money he had saved he took off on a week-long visit to Disney World, a long-cherished ambition. On his return, he was given a new TEP assignment, which he was in the midst of completing when the Project ended.

Viewed retrospectively, the Project and our intervention did not provide these three patients with the skills to carry out their individual endeavors. If anything, the Project, particularly PEMFT, afforded them the support, hope and encouragement which enabled them to draw upon strengths they had not utilized in many years. It is my belief that two control patients, 129 and 133, would have equally benefitted if such support and encouragement had been available to them. Without it, neither was able to fully sustain their involvement in the OVR training programs in which they had enrolled.

Notwithstanding the success of those three experimental patients, our intervention's impact, particularly in terms of patients' rehabilitation, was ultimately blunted by the absence of essential rehabilitative services in our agency and in the larger mental health system. Unlike the State's new ICM intervention (N.Y. State Office of Mental Health, 1988), our Project was not designed to help patient and family participants overcome barriers to and gaps in services. In sum, the Project had intrinsic limitations, principal among which was the lack of advocacy and systems change strategies.

Consequently, our ability to help the more impaired experimental patients, i.e, those individuals whose native strengths were more firmly enmeshed in the deteriorative effects of their long-term schizophrenia, was defined and delimited by our agency's and the mental health system's service delivery parameters. Patients 010's and 018's symptoms were contained; their treatment compliance was obtained and their relapse avoided; and they attended Maimonides' day treatment programs with fair regularity, thus expanding their circle of acquaintances. With additional resources at our and their disposal, they could have done more.

F. - <u>FAMILY PERCEPTIONS</u>:

So far in this report the aspect of the Project which is most crucial to it, viz., the PEMFT and its impact on its family participants, have been written about least.

It cannot be sufficiently emphasized that our interventions with the experimental patients would have been less effective, if effective at all, were it not for the full involvement and cooperation of their parents. For their part, the patients were always aware that their parents knew what was happening in their treatment, i.e, whether they were progressing or, if not, the impediments blocking their progress. It was not possible for them, as in past therapeutic involvements, to utilize the shibboleth of patient-therapist confidentiality to enforce notions of pseudo-individuation and separation from their parents.

This set of circumstances became increasingly palatable to patients over time as their parents became more supportive and less intrusive. This, in turn, was facilitated by a decline in suspiciousness and an increase in trust on the part of the patients. It was as if each became a real person to one another. Parents became able, via intra- and extra-PEMFT discussions with one another and with the Project professionals to distinguish between pathological and stress-induced behavior, ultimately lowering their reactivity to their ill children. This was facilitated by the parents' validation of one another and by Project professionals as healthy persons whose judgements regarding their children and one another could be relied upon. The emphasis, in short, was on normalizing their and their children's experiences and validating them as persons.

For our part, we could not have done without them. Whenever an impasse was reached in a patient's treatment, e.g., when a patient was medication non-compliant, parents were called upon and a family session held to discuss what was occurring. McFarlane, et al (1991) record a similar salutary effect of PEMFT involvement for therapists in their study, citing a 0% turnover rate for PEMFT therapists over two years as compared to a 50% turnover for PESFT therapists during the same period. We were always able, via SFT, PEMFT or individual therapy sessions to determine the stressors or set of circumstances that were behind the particular problem. Conversely, we made ourselves available on a 24-hour, seven-day a week basis to both patients and parents to discuss whatever issues were concerning them and offer reassurance.

In such a fashion, a three-way treatment relationship between patient, parents and professionals was formed, every one of which endured and was productive throughout the Project's course. The linchpin of this relationship process was the PEMFT, for it was there that family participants' relationships with one another began, that family members could return to regain a perspective on their own situation, that we could turn for support ourselves. One of the two

RATE OF CHANGE OF FAMILY PERCEPTIONS: INDEX->2 YEARS

SAS Scores - Experimental Group

Table 19.

MEMBER	REJECTION	BURDEN	DIS-SATISFACTION	ESTIMATION OF PATIENT DYSFUNCTION	TOTALS
Mo/008	-15.0%	-23.6%	-16.1%	-25.7%	-18.1%
Mo/009	-29.0%	-34.5%	-71.7%	-54.0%	-46.5%
Mo/010	- 3.4%	+ 3.6%	-15.1%	-29.4%	-14.4%
Fa/010	-27.2%	-33.9%	-48.8%	-38.2%	-32.1%
Mo/011	-40.8%	-47.8%	-73.2%	-32.0%	-46.3%
Fa/011	-33.5%	-44.1%	-55.2%	-40.9%	-40.8%
Mo/018	-25.8%	-26.5%	-22.2%	- 8.3%	-23.2%
Fa/018	+2.9%	-10.0%	+ 7.7%	-17.1%	0.0%
Mo/020	-19.5%	-43.8%	-55.1%	-47.9%	-31.3%
MEAN	-21.3%	-28.9%	-38.9%	-32.6%	27.3%

SAS Scores - Control Group

Table 20.

MEMBER	REJECTION	BURDEN	DIS-SATISFACTION	ESTIMATION OF PATIENT DYSFUNCTION	TOTALS
Mo/123	-12.1%	+14.6%	- 9.6%	-18.8%	-11.5%
Fa/123	-15.9%	-16.9%	+33.3%	-32.0%	-16.6%
Mo/125	- 1.7%	+10.9%	+ 5.7%	+ 5.0%	- 0.5%
Fa/125	-12.4%	+68.2%	+109.0%	+41.9%	+19.6%
Mo/127	- 8.1%	+34.4%	+66.7%	0.0%	+ 3.1%
Mo/129	+19.4%	-40.5%	-43.1%	-30.8%	-19.9%
Mo/133	+ 4.5%	-13.5%	-35.4%	-33.3%	-11.2%
Mo/139	0.0%	-15.3%	+30.8%	- 6.2%	- 1.2%
MEAN	- 3.3%	+ 5.2%	+19.7%	- 9.3%	- 4.8%
ANALY-SIS:	U = 11 P <.01	U = 12 P <.05	U = 6 P <.01	U = 15 P <.05	U = 9 P<.01

patients who attended PEMFT sessions regularly described them as providing him with an unique forum for airing his concerns and receiving feedback from individuals whom he had come to trust. This appeared to hold true for all PEMFT participants and was one of the key functions that the sessions played.

The benefits derived from their PEMFT participation were fairly immediate for experimental group parents. At one year, as per their SAS interviews, they all registered substantial positive changes on the SAS's Patient Rejection Scale, i.e., as regards their reactivity to their ill children, on their own subjective sense of burden, their satisfaction with their ill children, and their perceptions of their children's functioning.

However, there was no statistically significant differences between the two parent cohorts, since the control group family members themselves registered similar, albeit smaller improvements or only modest to moderate declines. As stated earlier, this is probably attributable, at least in part, to the six-session psycho-educational intervention conducted with each control family at the Project's outset.

As with the patient-focused three-part intervention, PEMFT's full impact and the discrepancies between the two cohorts became clearly manifested during the Project's second year. As evidenced in the foregoing tables, experimental cohort family members registered statistically significant rates of change, as compared to control group family subjects, in each of the four principal areas measured by the SAS. In accordance with Project hypotheses, comparisons between experimental and control parents on the measures of rejection of and dissatisfaction with patients were statistically significant at the level of p<.01, with U scores of 11 and 6, respectively.

In each of these areas, experimental parents achieved rates of change of -21.3 % and -38.9%, respectively, as compared to -3.3% and +19.7%, respectively, for their control counterparts. Differences between experimental and control parents' subjective sense of burden and their perceptions of patient functioning achieved statistical probability of p<.05, with U scores of 12 and 15 and mean rates of change for experimentals of -28.9% and -32.6%, respectively, as opposed to rates of change of +5.2% and -9.3%, for control subjects.

In terms of overall or "total" SAS scores, the differences between experimental and control parents were statistically significant at the level of p<.01, with a U score of 9 and a mean rate of change of -27.3% for the former as compared to -4.8% for controls. It should be noted that the improvements evidenced by experimental group parents essentially mirrored those achieved by their children and patient study subjects. It is not clear, however, a "chicken and egg" dilemma, which preceded or prompted which. Ultimately, their virtually simultaneous improvements functioned interactively and were mutually reinforcing.

Perhaps, however, the true hallmark of the success of the PEMFT and of the Project itself, is the importance the PEMFT sessions attained in the lives of those who participated in them. Several months before the Project and study ended for experimental subjects, all PEMFT groups members voted to continue meeting beyond the Project's conclusion in order to avail themselves of one another's support. They were also quite reluctant to tamper with a process which had worked so well for two years.

They further decided, a true vote of confidence in the PEMFT process, to lend themselves to serve as the base or core group of a New York State A.M.I.-affiliated family advocacy organization. Unfortunately, both initiatives, viz., that to continue the group and the other to form an A.M.I. chapter, were short-circuited first, when this writer resigned from the agency two months after completion of the experimental phase of the study, and, finally, six months thereafter when my co-therapist also left the agency. PEMFT sessions were discontinued at this point, thirty-two months after they had started. All talk of the formation of a family advocacy group, the ultimate aim of the Project, came to an end.

CHAPTER V

INDIVIDUAL CASE STUDIES

The preceding chapters, particularly the last, focused on demonstrating the effectiveness of our treatment intervention with the patients with whom we worked and their families. The experimental cohort of study subjects, those who received our three-part treatment intervention, was compared with the control cohort, comprised of those who did not, and the effects for the former were shown to be salutary.

In this chapter, additional data will be presented in support of our three-part treatment intervention from the perspective of its impact on individual Project patients. As stated at the outset of this dissertation, a distinct advantage of a low "N" study is that it allows the close investigation of the course of treatment of individual study subjects. It has been contended throughout this report that schizophrenia is highly idiosyncratic in its course and its impact on individuals, influenced by a host of biological and environmental variables. So varied and unpredictable is its course that many investigators have conceptualized schizophrenia as a syndrome of illnesses rather than a single disease entity (Carpenter, et al, 1985; Bellak, 1979). Consequently, the same treatment intervention will produce differential outcomes in severely and persistently mentally ill individuals diagnosed as having chronic schizophrenia.

This was indicated throughout Chapter IV in the course of the analysis of the outcome data contained in the several tables presented there. In Chapter V, the various demographic and outcome data of each patient study subject, accompanied by a descriptive narrative, will be assembled in individual case studies whose aim is two-fold:

1.- to provide a composite picture of each patient's two-year clinical course in the Project; and,

2.- to demonstrate the highly individualized nature of the treatment and the disease process of schizophrenia and the need to conceptualize treatment intervention in that light.

That treatment should be individualized, is, of course, consonant with values integral to social work (National Association of Social Workers, 1983) and psychosocial rehabilitation (Cnaan, et al, 1988, 1989; International Association of Psychosocial Rehabilitation Services, 1985).

It will be noted that the case studies of the experimental patients are more detailed than those of the controls since we got to know them and their families considerably better than their control group counterparts. Finally, in the interests of subjects' confidentiality, the names assigned to each are fictitious.

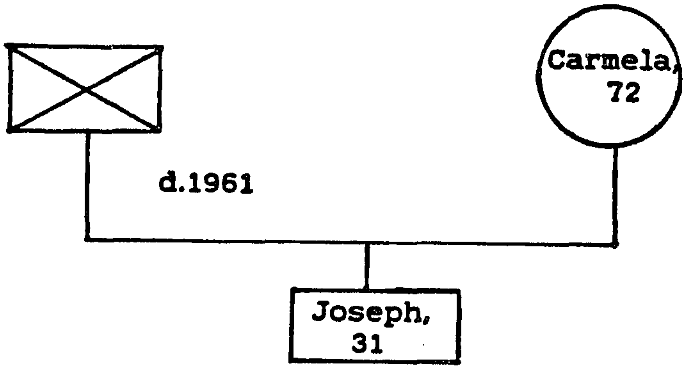
****

A. - EXPERIMENTAL GROUP:

1.- JOSEPH P. - STUDY SUBJECT #008 AND HIS MOTHER, CARMELA:

Mr. P. was 31 years of age when he entered the Project. He was the experimental study subject considered our one treatment failure, ending the Project as he began it, the most functionally regressed of all experimental cohort patients.

"P." Family Genogram - Figure 8.



Family History and Pre-Morbid Development: Mr. P. is an only child born to Italian-American parents. When he was six, his father died of a heart attack. Less than a year later, his maternal grandmother and grandfather, with whom he and his mother lived, died within several months of one another. While Mr. P. recalls feeling saddened by these losses, his mother was left emotionally bereft and financially impoverished. From that point in her life, she began to focus her energies solely on caring for her son.

Of all the families in both experimental and control cohorts, Mr. P. and his mother were the least socially accomplished, collectively attaining the lowest score in the Hollingshead Four-Factor Index. Mrs. P. never completed high school, worked at entry level clerical and factory jobs until she was married, and was supported by Social Security Survivor's benefits and her husband's pension after his death.

Mr. P., never a good student, dropped out of school during the 8th grade. It was then that his relationship with his mother became openly conflictual, and that he began abusing marijuana and beer while hanging out with the two to three boys who remained his close friends until his first psychotic episode at age 22. During this time, he also demonstrated a creative, imaginative side of himself that went largely undeveloped. He taught himself to play the acoustic and electric guitars and jammed regularly if haphazardly with his buddies. He showed a talent for still-life drawing and pursued interests in astronomy and paleontology. All of these activities ceased once he became ill.

He never held a job and never had a steady girlfriend, although he does appear to have had several heterosexual experiences during his adolescence. Long before his first psychotic episode, Mr. P. and his mother had developed a relationship style that was somewhat altered by Mrs. P.'s involvement in our SFT and PEMFT sessions. Specifically, she would pursue him with criticism for being lazy and irresponsible, and he would respond with anger, abusive language and menacing behavior.

Psychiatric History: Mr. P. was hospitalized for the first time at age 22 when he tossed some of his mother's furniture and personal effects out of their apartment window and then assaulted her. The next several years were marked by treatment resistance on Mr. P.'s part, increased social isolation for him and his mother, periodic conflicts between the two and continued episodic marijuana abuse by Mr. P.

His second hospitalization occurred when Mr. P. was 28 and was precipitated when he was mugged on the boardwalk at Coney Island while trying to buy drugs. As a direct consequence, Mr.

P. became more reclusive on his return home from the hospital. He was fearful, highly suspicious and rarely left his house for any reason. Unfortunately, this served only to exacerbate the tension and conflict between him and his mother since they now spent virtually no time apart. He also refused to return to Maimonides Community Mental Health Center where he was being seen for follow-up outpatient medication evaluations and individual treatment sessions.

From June, 1984, the time of his mugging, through the end of December, 1986, Mr. P. was hospitalized five times for periods of from 10 days to three months. His average length of stay _out_ of the hospital during these 27 months was four months. The immediate cause for hospitalization in each of these five instances was an assault by Mr. P. upon his mother, the culmination of several weeks of escalating conflict between the two. On all five occasions, Mr. P. had also been non-compliant with prescribed medication and psychosocial treatment virtually from the time of discharge from his preceding hospitalization.

Project Treatment History and Course of Illness: Mr. P.'s entry into the Project was in January, 1987, after his discharge from his December hospitalization, his indexed Project hospitalization, produced no change in his pattern of behavior. Within four months he was back in the hospital.

Within a month of his return home, he had stopped taking his prescribed medication. Shortly thereafter, he began failing appointments with me and with his Project psychiatrist. Despite our efforts, Mrs. P. could not be enlisted to help maintain Mr. P.'s medication regimen. As she was later to admit, she believed the medication did her son more harm than good. She also feared that he would assault her if she pushed him too hard on this issue. Ultimately, she proved quite cooperative in having him re-hospitalized.

The Project psychiatrist and I were determined to prevent another assault by Mr. P. on his mother. Bolstered by our support and that of the PEMFT group, Mrs. P. was equally determined to stop her victimization by her son. As soon as she reported to us that he had begun threatening her anew, Mr. P. was hospitalized. Since he had not been allowed to fully deteriorate, his psychotic symptoms -auditory hallucinations, ideas of reference, paranoid ideation - remitted within a week's time. Mrs. P., however, encouraged by the PEMFT group, refused to allow him to return home and insisted that he be placed in an appropriate residence.

For the next three months, which included a month-long stay in South Beach Psychiatric Center, efforts were made by C.M.H.C. and S.B.P.C. social workers to place Mr. P. in an adult home. They ultimately failed, not so much due to Mr. P.'s continued resistance or to Mrs. P.'s eventual ambivalence but to lack of an "appropriate placement." In his withdrawn and apathetic state, Mr. P. was acceptable as a resident only in the most poorly administered and run-down facilities.

Consequently, he returned home and managed to stay out of the hospital for the next 12 months. During his first 10 months, Mr. P. functioned better than he had in several years. He complied with his treatment regimen; spent time and attention on his personal appearance and hygiene; evidenced a livelier although constricted affect and an appropriate, albeit quite limited, sociability; and demonstrated renewed, if brief, interest in playing the guitar and past creative efforts. In addition, he appeared chastened by his mother's limit-setting and seemed intent on pleasing her.

However, the relative calm of this period also brought into sharp focus the deleterious impact his illness had had on him and his functional limitations. Principal among them was his seriously impaired ability to relate to others, evidenced throughout the course of the Project by his social withdrawal and isolation. A Day Hospital patient, for example, drawn to the pathetic yet gentle figure that Mr. P. presented, offered him a pet kitten as a gesture of friendship and concern. When she attempted to place the animal in his hands, he recoiled in a mixture of fear and disgust. A Project patient and regular attendee of the PEMFT sessions, hearing of Mr. P. 's renewed interest in playing the guitar, offered him an old but still playable guitar. Mr. P. would not even touch the case in which the guitar rested. It was as if Mr. P., during these encounters, had such a feeble grasp of his own sense of self that he could not risk it in a direct exchange with others (c.f., Estroff, 1990; Strauss, 1990).

In my own work with Mr. P., I came to understand his social withdrawal as his last ditch attempt to preserve the little sense of self he had remaining (Estroff, 1990; Strauss, 1990). I endeavored to soften the barriers presented by his negative schizophrenic symptoms and to allow some sense of his self and unique identity to surface by offering him unqualified encouragement and support regarding anything in which he might express interest. As per Winnicott, I attempted to lend my sense of self to Mr. P. until his could re-emerge and take hold (c.f., Kanter, 1990). Thus, my own expressions of interest in the folk and protest rock music to which Mr. P. still listened on the radio; my keeping available in my office an acoustic guitar for Mr. P. to strum when he came for his weekly appointment; and my brief discussions with him about the dinosaur exhibits at the Museum of Natural History.

However, my individual work with Mr. P. was undermined by the many limitations on the time I could spend with him. Much time was taken up with managing the conflict between Mr. P. and his mother. Further, the demands of other aspects of my job prevented me from spending any time with Mr. P. in community rather than office settings where much corrective work with him could have been done. For example, I had planned to spend an afternoon with Mr. P. at the Museum of Natural History viewing the dinosaurs. However, our trip had to be canceled shortly before I was to leave the C.M.H.C. to pick him up when I was called on to handle an emergency with another patient. Because of the increasing demands on my time as a consequence of agency cutbacks, we were never again able to schedule a comparable outing.

Given his own limitations, Mr. P. was not able to maintain the level of functioning just described indefinitely. His last eleven months in the Project were marked by a recycling of old behavior - treatment non-compliance, consequent upsurge of positive and negative symptoms, and increasing conflict with his mother - and a steady decline in functioning. The latter was punctuated by two additional hospitalizations: for eleven days 18 months into the Project, i.e., 12 months after his first Project hospitalization; and, for two months at 25 months into the Project. Indeed, Mr. P.'s discharge from that hospitalization coincided with the completion of his stay in the Project.

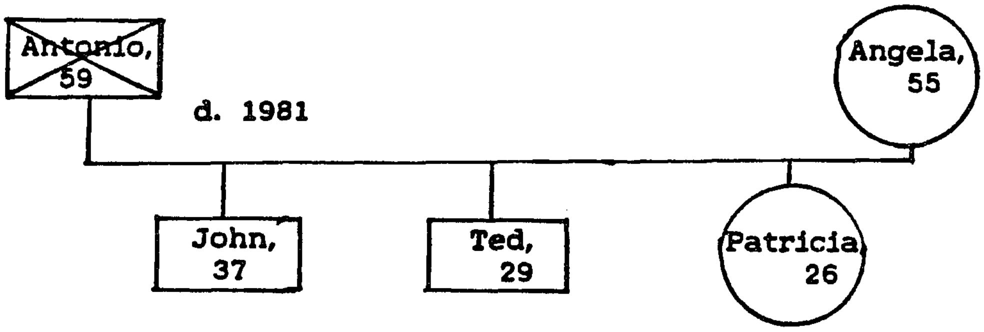
Despite some gains made by Mr. P. and especially by his mother, as described in this section and in the preceding chapter, I have characterized Mr. P.'s experience in the Project as a treatment failure since he evidenced no improvement in either symptomatology or in social functioning as a consequence of his involvement. As mentioned above, it is my belief that Mr. P. required more time for in vivo social learning experiences than I and the Project's staff could provide him. This represents an inherent limitation of our treatment intervention and is not a reflection of Mr. P.'s ability to change and improve his life.

It is illustrative to note that at the Project's conclusion, i.e., when all data had been collected on both cohorts and just prior to my co-therapist's leaving the agency, Mr. P. was referred to the new State/City Intensive Case Management Program and accepted as a client by the I.C.M. team located at South Beach Psychiatric Center. It was our hope that the low client to case manger case ratio of 10:1, informed by the I.C.M. Program's psychosocial rehabilitation philosophy and values, would enable Mr. P. to receive the highly individualized help he requires.

2.- <u>TED G., STUDY SUBJECT #009, AND HIS MOTHER, ANGELA:</u>
Mr. G., was one of the Project's success stories. By the end of his two years in the Project, he had enrolled as a music student at Kingsboro Community College in Brooklyn, had maintained himself in a single room in a private residence since discharge from his indexed hospitalization, and had worked for up to six months at each of two full-time jobs.

He was 29 when he entered the Project, the second of three children born to his mother, Angela, age 55 at the Project's inception, and his father, Antonio, who died in 1981 at age 59 of a heart attack.

"G." Family Genogram - Figure 9.



While Mr. G.'s parents were born in Puerto Rico, they were both brought to this country when young and became fully acculturated. As a consequence, Mr. G. and his siblings speak English as their primary language and little or no Spanish.

<u>Family History and Pre-Morbid Development:</u> Mr. G.'s recollections of his childhood and adolescence are painful and one-sidedly bleak. For example, spankings by his father, which were meted out to Mr. G. and his siblings until they reached adolescence, are remembered by Mr. G. as beatings. Only when prodded is he able to recall the many warm and close experiences he apparently had with his father.

He also sees himself as the source of pain and suffering for family members and friends during this period of his life and regards his illness as both proof of and retribution for it. He believes he ruined the life of a girlfriend whom he impregnated when he was about 16 and who decided to have an abortion. He blames his adolescent rebelliousness and the onset of his illness as precipitants of his father's heart disease and death.

As per both Mr. G. and his mother, he was a difficult, oppositional child dating from age six, when he was seen briefly by a child psychiatrist at his school's suggestion. Nonetheless, he was an above average student in grammar school and high school. While he recalls having bouts of anxiety at the beginning and end of his school career, he was able to work through them and graduate. He had many friends during childhood and adolescence, among them several girlfriends. He became an avid guitar player and formed a band with other friends. He also worked at several jobs, part-time and full-time. In sum, he managed to surmount his emotional brittleness and score normative achievements in areas of social and instrumental functioning.

<u>Psychiatric History and Course of Illness:</u> In retrospect, the anxiety he suffered in his senior year in high school was a prelude to his first psychotic episode a year later as he was struggling to complete his first year at L.I.U.'s Pharmacy School. As per his mother, she and Mr. G.'s father were "devastated" when Mr. G. became ill. Over the course of the next ten years, i.e., through February, 1987, Mr. G. had nine additional hospitalizations, two of which occurred in 1981, the year Mr. G.'s father died.

After his death, family relationships became more strained and conflictual. Mr. G. 's older brother, John, with whom Mr. G. had had a somewhat distant relationship, became even more distant and critical of Mr. G., particularly regarding his unwillingness to adhere to a treatment regimen and the upset this was causing their mother. By this time, John was married, had two children and a home of his own in a northern New Jersey suburb, where he worked as a managing pharmacist of a local drug store.

Mr. G. and his mother also became tightly fused and began to struggle constantly over his push for independence and his inability to maintain himself without her help, the source of often bitter mutual recriminations. Fortunately for Mr. G., his younger sister, Patricia, with whom he had always been close, remained close and accepting of him. However, within a few years, she married and followed John to northern New Jersey, another loss for Mr. G.

With Mr. G. and his mother living on their own in her apartment, the conflict between them intensified. By the time they entered the MFSDP in February, 1987, Mrs. G. had decided to move to her daughter's home in northern New Jersey, where a small apartment had been established for her. This was apparently one of the precipitants to Mr. G.'s indexed hospitalization in late January. Mrs. G.'s greatest fear was that, despite her resolve, her son would become so ill that she could not in good conscience leave him.

My first several family meetings with Mr. G. and his mother were tense and stormy. In characteristic fashion, Mr. G. blasted his mother for abandoning him and blamed her for his current and past predicaments. When his mother remained adamant about her move to New Jersey, Mr. G. channelled his anger and upset and found himself a single room in a private home in the Midwood section of Flatbush. Despite several setbacks, he managed to maintain this room throughout his two years in the Project.

Mr. G.'s Project career is instructive since his course of treatment and rehabilitation is virtually identical to that of the two other experimental patients who were highly successful. He began his career by recycling patterns of behavior he had followed in other treatment settings. He directed much anger my way, challenging my convictions and testing the durability of the relationship we were forming. He protested the parameters of the treatment regimen I set out for him, which was present-focused and behaviorally oriented. Mr. G. was determined to bring us all into the past in order to make his case against his mother.

Despite his initial misgivings, Mr. G. remained treatment compliant for his first six months in the Project. He complied with his medication, kept all individual appointments, attended the Day Hospital regularly and was one of the two experimental patients who attended virtually all PEMFT sessions. The latter proved especially valuable to him, since he was able to experience wholehearted and uncritical acceptance by adults for the first time. He also grew close to and learned much from the other experimental patient who attended PEMFT sessions regularly and her ups and downs.

In his eleventh month, Mr. G. found a full-time job in a music store in Greenwich Village, left the Day Hospital and began cutting his medication dosage. This behavior and its aftermath over the next several months were typical of Mr. G.'s past sojourns between hospitalizations, which averaged about six months. His push for independence, which this represented, was accompanied by a corresponding disdain of the help and advice of those who offered it.

By his tenth month in the Project, Mr. G. having discontinued all medications, was becoming symptomatic, periodically evidencing paranoid delusional thinking, disordered cognition and ideas of reference. He had lost his job in the music store after a heated argument with his boss, and had resumed blasting his mother with anger on the rare occasions he visited her in New Jersey or in the hour or two they managed together either before or after PEMFT sessions.

Interestingly, Mr. G. rarely missed a PEMFT session during this time and kept most of his appointments with me. It was during one of these PEMFT sessions that Mr. G. experienced what he later came to see as a significant turning point for him, which enabled him to discard his angry paranoid defenses. Specifically, he entered a session late, and then proceeded to let loose a torrent of anger and accusations directed at his mother and me. While initially taken aback, group members, particularly the fathers in attendance, responded with understanding and acceptance and Mr. G. eventually calmed down. As he later explained to me, he fully expected to be tossed out of the group and saw, when he was not, that it was pointless to subject others to further abuse.

Mr. G. continued to deteriorate and was hospitalized at 14 months into the Project. By then, much of his paranoia and anger were directed inward and he was in such pain that he feared he was going to die. Only the hospital, i.e., I and the other staff members he had come to know, could save him. After a three week-long stay, Mr. G. was discharged back to the Day Hospital. He had resolved to drop his paranoid stance and to re-connect with others via his personal warmth and charm, which were considerable. He also allowed himself to trust the Project's message, viz., that treatment compliance would enable him to leave his patient role and pursue personal goals. He agreed to receive monthly IM injections of Haldol Decanoate and resumed regular attendance at individual and PEMFT sessions.

He left he Day Hospital after three months when he secured a per diem job as a patient escort in the Medical Center. He did so well at his new job that, in a matter of weeks, he was called in to work on a almost daily basis. However, the job began to wear on him; and, in January, 1989, following the example of an experimental group patient who had done so a semester earlier, enrolled in Kingsboro Community College to study music, a life-long ambition.

By the Project's conclusion for experimental subjects in April, he was midway through Kingsboro's Spring's quarter, had become romantically involved with a woman he had met in the Day Hospital and was working on a part-time basis as a shipping clerk in a nearby mail order business. He was also symptom-free and fully treatment compliant.

His mother, who had also been a faithful PEMFT participant, travelling regularly from New Jersey to take part in sessions, was overjoyed. As she related, she had her son back. Time spent by them together when he visited her, which was virtually every other weekend, was free of tension and recrimination. Mr. G.'s sister continued her close relationship with him, and his brother, although still somewhat distant, softened considerably towards him.

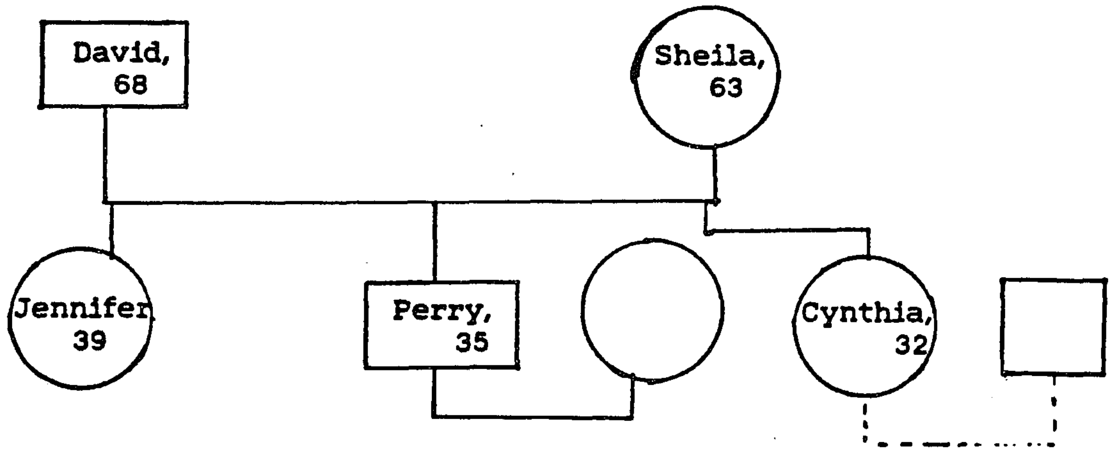
3.- JENNIFER P., STUDY SUBJECT #010, AND HER PARENTS, DAVID AND SHEILA:

Jennifer P. entered the Project when she was 39, the oldest of three children born to her parents, David, 68, and Sheila, 63.

She and her family members' ethnic and cultural background is German and Jewish.

Ms. P. was also the oldest and most persistently psychotic and had the longest psychiatric history of the experimental group patients.

<u>"P." Family Genogram -</u> Figure 10.



<u>Family History and Pre-Morbid Development:</u> Ms. P. was regarded by her family, particularly her parents, as a special person from childhood. She was born a year after the death of her maternal grandmother, a figure revered by both Ms. P.'s mother and father and by her many aunts and uncles. As the first grandchild, she was doted on and came to replace her deceased grandmother in the family's affections.

This later proved to be the source of great resentment by Ms. P.'s younger brother and sister, who felt themselves shortchanged in the attention shown them by their parents and relatives. That situation grew worse when Ms. P. became ill in her early 20's, since her parents' energies were primarily directed to helping her. Both siblings essentially left home when they went off to college, Perry to Buffalo, and Cynthia to Boston, where they still reside. Both maintained somewhat distant relationships with Ms. P. and their parents until the last several years when they, particularly Perry, opened up a discussion of past hurts and grievances with their parents.

Ms. P. remained the family's star until her first psychotic episode at age 24. She excelled in school, winning honors in grammar school and high school and graduating from college summa cum laude and Phi Beta Kappa. Her mother remembers her as a shy, almost reclusive girl, buried in her books, having few friends and rebuffing the boys who sought to date her. Her first psychotic break occurred just as she was completing her Master's degree in Education - she planned to be a high school English teacher - and a short-lived romance with a young man she had hoped to marry ended.

Psychiatric History and Course of Illness: From 1972, when she experienced her first break, through early 1987, when she entered the Project, Ms. P. was hospitalized 23 times. Except for relatively brief intervals, she was psychotic for much of this period of time. She experienced unrelenting auditory hallucinations and the most bizarre delusions, feeling herself possessed by "little green men." She was invariably fearful and suspicious, often paranoid, and used imaginative neologisms, "I was clawed," essentially meaning she felt herself drastically altered by the onset of her illness - testimony to a rich inner life gone awry.

Ms. P. was essentially treatment resistant during all these years, despite several fairly extended stays in Day Treatment programs. She particularly disdained prescribed anti-psychotic medications, not only for the unpleasant side effects they caused her, but primarily for the patient role they signified for her. Her disordered cognition notwithstanding, she sought and held, albeit very briefly, several teaching and secretarial jobs over the years. She often absented herself from the Day Treatment programs she attended to go job-hunting in Manhattan. She always walked about clutching a volume of classic English or French literature, which she attempted to read regardless of the extent to which her concentration might be impaired. When less symptomatic, usually for several weeks to months after a hospitalization, Ms. P. presented as charming, friendly, often flirtatious and girlish, looking much younger than her actual years.

Her parents, overwhelmed by her illness and at the suggestion of treating mental health professionals, secured an apartment for Ms. P. early on in her illness. It was located in Brooklyn near the home of an aunt and within the Maimonides catchment area. Although she often expressed bitterness at her parents' action, Ms. P., with their considerable help, had managed to maintain herself in this apartment and welcomed the privacy it afforded her.

When Ms. P. became ill enough to warrant hospitalization, the symptoms described above considerably worsened and the deep-seated rage she felt over her predicament burst forth, usually directed at her father. It was he who always made the necessary arrangements for her hospitalizations, which often obliged him to summon the police to bring her under control.

When Ms. P. entered the Project in 1987, she appeared to have decided to fully adhere to the treatment regimens set out for her - weekly Prolixin Decanoate injections; weekly individual treatment sessions, daily attendance at the Day Hospital and, later, Continuing Treatment Programs - in order to avoid rehospitalization. Her actions closely parallel those reported by Anderson, et al (1986), many of whose study subjects also responded to a message of hope from treating professionals after many years of suffering and hopelessness.

For the full life of the Project, i.e., through December 1989, Ms. P. did not require re-hospitalization. As per Strauss (1990), her resolve to stay well and to maintain her tenure in the community seemed to involve an act of will on her part. She remained fully treatment compliant throughout her two years in the Project and beyond, and rarely missed a day in either the Day Hospital or Continuing Treatment programs. Interestingly, she declined to attend the PEMFT sessions, fearful they might be like the many other family sessions she had attended, where she and her parents usually exchanged accusations and blame.

Nonetheless, while Ms. P. represents one of our treatment successes, she is also an example of the limitations of our treatment intervention and, more precisely, of New York City's mental health system. She had resolved to stay out of the hospital in order to eventually pursue her goal to work. She was not ready at any point during her two years in the Project to look for market-place employment. The prospect of volunteer work at Maimonides Medical Center, which was suggested to her, proved too daunting for her. Yet her virtually perfect attendance at her day programs over two years and her continued desire to work - she served as the volunteer librarian for the Continuing Treatment program's small collection of books - qualified her as a candidate for a psychosocial rehabilitation program, akin to New York City's

Fountain House, or a supported employment program. Unfortunately, no such programs exist in Brooklyn.

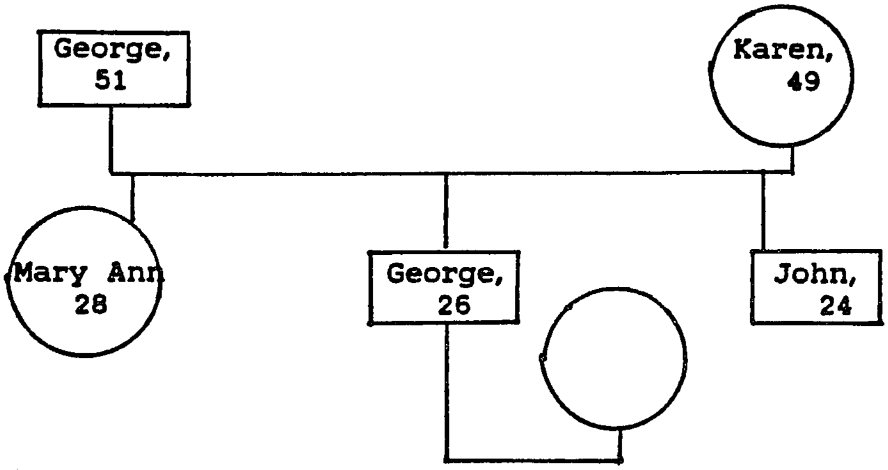
While Ms. P. did manage to avoid rehospitalization for three years, she evidenced a slow deterioration over that time. Her level of symptomatology at the end of her Project stay was greater than when she entered. Indeed, she remained at a psychotic level, as per the PRS, during her last 18 months with us. That she did not ultimately relapse is probably testimony to her unwavering treatment/medication compliance, the trusting relationship she formed with my co-therapist, and the support she received from other patients and staff whom she came to know at the day programs.

A further consequence of her relative stability over time is that it enabled Ms. P. parents, regular PEMFT participants, to plan for their retirement. By the time of the Project's conclusion, both had retired from their respective jobs and were in the process of purchasing a condominium in Florida. To leave New York City for several months a year was something they would not have contemplated prior to their involvement in the Project. On an equally positive note, Ms. P.'s siblings, with whom my co-therapist and I met on one occasion during this time, had begun to communicate with their sister and their parents with greater regularity, exchanging holiday visits with them.

4.- MARYANN G., STUDY SUBJECT #011, AND HER PARENTS, GEORGE AND KAREN:

Ms. G. was 28 when she entered the Project. At that time she lived at home with her mother, Karen, 49, and her father, George, 51, of Irish Catholic and German Catholic heritage, respectively. A younger brother, George, Jr., 26, had moved out of the family home a year earlier when he married. He and his wife live in a cooperative apartment near his parent's home. The youngest, John, 24, left home at age 19 to join the army. A career noncommissioned officer, he was then stationed in Panama.

"G." Family Genogram - Figure 11.



Family History and Pre-Morbid Development: Ms. G. depicts herself as a "rebel," particularly during her adolescence. While a good student throughout grammar, junior high and high school, Ms. G. began to cut classes when she entered high school, gained the reputation of being somewhat oppositional and argumentative with teachers, and often hung out late at night with friends in a local park talking, drinking beer and smoking pot.

This sparked a good deal of conflict between Ms. G. and her parents, who were shocked and dismayed by what they perceived as an abrupt change in her attitude and behavior. Ms. G. talks of fierce arguments between her and her father, who had the task of disciplining her, and remembers one occasion when he came to the park one night, became exasperated by her and dragged her home by the hair.

She relates her adolescent rebelliousness to the feelings of loss she experienced when her family moved to a new neighborhood and their current home when she was about 12, and to the death of her maternal grandmother when Ms. G. was 14. She particularly remembers the sadness of her mother, who had cared for Ms. G.'s grandmother for several years prior to her death, and to whom Ms. G. has always been emotionally very close.

Although Ms. G. experimented sexually during her adolescence, her rebelliousness did not extend to sexual promiscuity. By her own account, she has had very few encounters involving sexual intercourse and has never had a long-term romantic relationship. While this might be attributed to her illness and its pre-morbid impact, Ms. G. has spoken of her suspicion that she was sexually abused as a very young child by her father. No penetration or touching of any kind was involved; rather, Ms. G. recalls being photographed in the nude and feeling somehow violated. However, since these recollections become most vivid when she is decompensating, she is not at all certain whether her memories are based on fact or are psychotic delusions. Consequently, she has chosen not to raise this issue with her father, with whom she has an otherwise excellent relationship and who had assumed a caretaker role with her when she first became ill at age 20.

Ms. G.'s first schizophrenic episode occurred as she was attempting to complete her first year of college. It not only dashed her hopes of having a professional business career, of marrying and having a family, but left her mother embittered and the family divided and isolated. The youngest sibling, John, joined the army at age 19 and visits home when he has leave, which is somewhat infrequent. George distanced into school and work and is currently employed as a New York City Corrections officer. As noted above, he married in 1988 and lives nearby with his wife. Fortunately for Mrs. G., Mr. G. has been supportive throughout their long ordeal. They, together with Mr. and Mrs. P., served as ideal models of mutually supportive spouses for our PEMFT participants.

Psychiatric History and Course of Illness: Ms. G.'s indexed Project hospitalization was her eighth in eight years. The average length of her community tenure between hospitalizations was eight months. She began her Project career with the same ambivalence towards treatment that she had exhibited prior to her month-long indexed hospitalization. Within a few days after discharge, she had ceased attending the Day Hospital program, began to discontinue her medication and to fail her appointments with this writer. She also neglected to regularly attend PEMFT sessions, which served as a forum for her mother to express her profound disappointment and anger with both her daughter and the mental health professionals, i.e., the inpatient staff and this writer, who were purporting to treat her daughter.

By the end of three months, Ms. G. had relapsed and been rehospitalized. When she returned home after a two-week long hospitalization, which barely allowed her to recompensate, she agreed to comply with her treatment regimen mollify her parents, who were beginning to pressure her to accept a placement in a supported apartment program.

Fortunately for Ms. G., she herself soon decided that treatment compliance might offer her greater independence and allow her to pursue goals that she had forsaken, viz., to return to school and eventually secure a good paying job. As

Ms. G. related, she was persuaded not so much by the arguments advanced by this writer, but by the experiences of the other Project patients she witnessed or heard about in the PEMFT sessions she had begun to attend. It should be noted that she and Ted G. were the only Project patients who regularly attended PEMFT sessions.

She reported learning about the successes and failures of Project patients who were or were not complying with their treatment and the gratification or distress their families were accordingly experiencing. The continued distress of her own mother was counterbalanced in these sessions by the support she received from two mothers of Project patients who, like Ms. G. were "born- again" Christians. These women ultimately befriended Ms. G. and would periodically invite her to their homes and to their churches where they socialized and often prayed together.

Ms. G. also became good friends with Ted G. They would discuss the "pros" and "cons" of treatment compliance, particularly as regarded medication, share anecdotes about other patients they knew, and support one another's efforts to avoid relapse and pursue their goals.

After 12 months in the Project, Ms. G. moved out of her parents' home and into a Park Slope apartment under the auspices of the Jewish Board of Family and Children Services. This represented a tremendous achievement for Ms. G. and her parents. At the time of her placement, Ms. G. was symptom-free and fully treatment compliant. She was attending the Day Hospital daily, taking her prescribed medication with no complaint, and regularly attending individual and PEMFT sessions.

Six months later, Ms. G. enrolled in Kingsboro Community College to study to be a social worker. She continued symptom-free and treatment compliant and was sustaining herself in her supported apartment. Over the next three quarters at Kingsboro Community College, i.e., through her remaining six months in the Project, she maintained a straight "A" average as a part-time - 6/10 credits per quarter - student. As alluded to earlier, her success at Kingsboro prompted Ted G. to enroll there.

Along with him, Ms. G. represents one of the Project's most complete treatment successes. Over the course of her two years in the Project, Ms. G. evidenced substantial improvement as regards symptom reduction and instrumental and social role functioning. She managed to live independently for 12 months, was an exemplary student at Kingsboro Community College for almost nine months, and avoided relapse and rehospitalization and maintained a tenure in the community of 20 months.

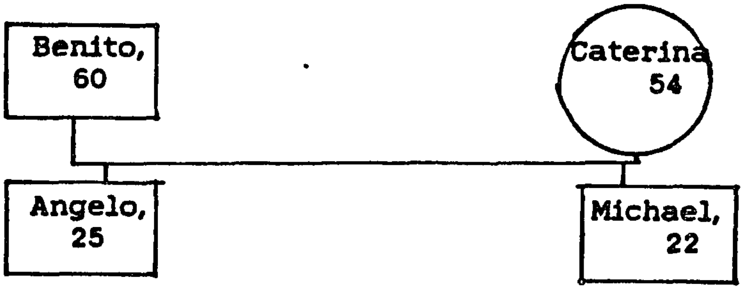
Her parents, correspondingly, during their two years in the Project, achieved the greatest reductions on the SAS of all PEMFT family members in their criticism of and enmeshment with their daughter and in their sense of burden. In addition, Mrs. G. attained the largest increase in satisfaction with her daughter's progress and both parents scored high in their recognition of her enhanced functioning.

Viewed as a family constellation, the three of them underscore the importance and impact of the social support and educational features of PEMFT.

5. - ANGELO S., STUDY SUBJECT #018, AND HIS PARENTS, CATERINA AND BENITO:

Mr. S. entered the Project at age 25. He has one younger sibling, Michael, 22. Their parents, Caterina, 54, and Benito, 60, were born in Italy and emigrated to this country shortly after their marriage in 1952.

"S" Family Genogram - Figure 12.



The senior Mr. S. works as a tile setter in the construction industry. Mrs. S. began working as a charwoman in a large Manhattan office building several years ago. She is also a "born-again" Christian, which she claims has enabled her to withstand the pain of her son's illness. At the time of his family's entry into the Project, Michael was a rookie in the New York City Police Department.

<u>Family History and Pre-Morbid Development:</u> Mr. S.'s childhood and early adolescence were apparently ordinary. He was a fair student in grammar school and through his first three years in Grady High School, shortly after which he became symptomatic and was obliged to drop out. He had several boyhood chums and learned to play the drums and played for a time in a local rock and roll band. When he began to show the first signs of illness at age 18, he ceased social contact with all but nuclear and extended family members. He also experimented with marijuana and continued periodic use until he began to be ill. However, he had no girlfriends and no inter-personal sexual experiences of any kind.

Mr. S.'s parents lived equally ordinary and traditional lives during this period. His father worked as a tile setter in the building trades and divided his leisure time between family activities and the Italian social club of which he was an active member. By the time he entered the Project, his demanding work had taken a physical toll on him and he was considering retirement. Mrs. S. spent her two sons' early years as a housewife, devoting herself to caring for her husband and children and to extended family affairs, particularly those involving her younger sister and brother and their spouses, who had followed her to this country. She went to work cleaning Manhattan office buildings at night when both her sons reach adolescence. She turned to evangelical religion for solace when her son became ill.

Her youngest son, Michael, had a normal, uneventful childhood and adolescence similar to that of his older brother. He was the quieter of the two and the cause of greater concern for his mother when younger. It was only as he grew older that he became more gregarious and outstripped his brother socially. The two began to grow apart when Mr. S. became ill, despite continuing to share the same bedroom. Michael distanced from his brother and the family upset caused by the onset of Mr. S.'s illness by immersing himself in his plan to become a police officer. At the time of the Project's start, he had just graduated from the New York City Police Academy.

<u>Psychiatric History and Course of Illness</u>: Mr. S.'s indexed Project hospitalization was his sixth in the five years since his first break and hospitalization in 1982. When he entered

the Project, his community tenure between hospitalizations had averaged seven months.

From the onset of his illness, which preceded his first hospitalization by about two years, and throughout his Project career, Mr. S. was beset by a clear and persistent thought disorder, evidencing tangential, delusional and obsessive thinking, and auditory hallucinations, often command in nature. These symptoms ebbed and flowed in severity over time, and were ameliorated by neuroleptic medications. By the beginning of his second year in the Project Mr. S.'s symptoms had subsided considerably.

In 1982, the severity of his symptoms resulted in four hospitalizations, including a four-month long hospitalization at South Beach Psychiatric Center. Early in 1984, responding to command auditory hallucinations, Mr. S. used a toy gun to hold up a local savings bank. He intended to use the money he took, which amounted to a few hundred dollars, to buy a new drum kit. Quickly arrested by the police, he spent two months in Kings County's Forensic Unit for psychiatric observation and was then remanded for one year to Mid-Hudson Psychiatric Center. He returned home in March, 1985, and began serving a five year probation period.

It should be noted that Mr. S.'s criminal behavior was out of character. He was by no means a violent individual and usually presented as a mild-mannered, socially ingenuous young man, with a blunted, almost vacuous affect. On rare occasions, he would give vent to his frustrations at not being able to achieve his principal goals, viz., to complete his studies at Grady High School and to get a job as an auto mechanic. He would yell, slam doors, bang walls, then quickly calm down.

For the most part, he became depressed when he dwelled on his sense of failure, sometimes experiencing suicidal ideation. He was also easily stressed, particularly, during his first year in the Project. In most social situations, including his individual sessions with me and the PEMFT sessions he alternately attended with his father and mother, he would withdraw into himself and giggle inappropriately, responding to some internal stimulus, usually a pleasant thought or memory. Although essentially medication and treatment compliant throughout the Project, he failed about a third of his appointments with me as a direct consequence of his anxiety. Similarly, he was only able to attend sporadically the Continuing Treatment Program, to which he had been referred six months into the Project.

Mr. S.'s anxiety also surfaced somatically, via his nightly insomnia and the gastrointestinal distress, accompanied by vomiting, he experienced virtually every morning through his first year in the Project. This directly interfered with his participation in the Continuing Treatment Program and made it necessary to schedule only afternoon appointments with him. Nonetheless, Mr. S. was able to surmount, or at least to cope, more successfully with these difficulties as he progressed through the Project. He was one of the two experimental group patients, the other being Ms. P., who was able to avoid relapse and rehospitalization during the Project's course. He also scored the highest rate of improvement, in terms of symptom reduction, among experimental group patients on the PRS.

The high point for Mr. S. came at 18 months into the Project when he accompanied his parents to Northern Italy for a month-long stay to visit their families. He did extremely well, enjoyed himself, caused his parents no anxiety or embarrassment and continued cementing a closer relationship with his father, a process that was initiated when the two of them began to attend PEMFT sessions. Prior to his involvement in the Project, the elder Mr. S., had distanced from his son, mortified and disappointed by his illness, and had left his son's care solely to his wife. On their return home, the elder Mr. S., apparently resolved to help his son satisfy his desire to work and earn money, brought him to work as his helper for about two weeks. Before the trip to Italy, Mr. S. had impressed his father with his willingness to do chores around the house, responsibilities which I had suggested he assume as a pre-vocational exercise (c.f. Anderson, et al, 1986). Unfortunately, Mr. S. was not up to the physical demands of tile setting. He also found the hustle and bustle of a construction site confounding. Further, his father had violated union work rules by bringing him, a non-union worker, onto the job site, and found himself obliged to pay his son out of his own pocket.

This experiment was never attempted again; in fact, shortly, thereafter, the elder Mr. S. began to suffer severe back pains and worked only intermittently for awhile. Nonetheless, the outcome of their trial work period together left both men disappointed and demoralized. It also served to once again underscore the limitations of our treatment intervention and the deficits inherent in New York City's mental health system.

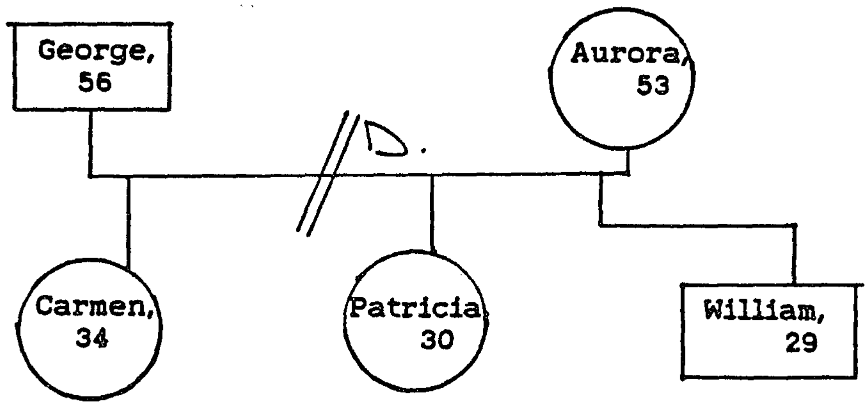
Similarly to Ms. P., Mr. S. required and would have done well in a psycho-social rehabilitation club or a supported work setting. As indicated earlier, no such programs exist in Brooklyn and only a handful are operating in the entire metropolitan area. Office-bound, we could neither help him locate an appropriate program or a job nor provide him with the supportive services he would require to sustain himself.

In sum, Mr. S. ended his Project career on a somewhat down note but nonetheless greatly improved in terms of symptom reduction and overall functioning. This latter was noted with some satisfaction by the elder Mr. S., as per his final SAS scores. Interestingly, Mr. S. is the only experimental group family member who did not register improvement in his SAS total score. Indeed, he showed no improvement over the course of his two years in the Project, perhaps as a result of the closeness he achieved with his son and the consequent increase in his own distress over the adverse impact on his son of his illness.

As for Mrs. S., she continued to function as an excellent case manager for her son over the course of the Project, seeing to his medication and treatment compliance, and working closely and cooperatively with me. The PEMFT sessions proved quite helpful to her, and she was able to create for herself a support network with several of the women in the group which extended beyond the formal sessions. Ultimately, she appeared most gratified by the positive changes she saw her son undergoing and the beginning closeness that developed between him and her husband.

6. - <u>WILLIAM V., STUDY SUBJECT #020, AND HIS MOTHER, AURORA:</u> Mr. V. was 29 when he entered the Project. He has two sisters, Carmen, older by five years, and Patricia, a year older. His mother, Aurora, was 53 at that time and his father, George, whom she divorced in 1968, was 56. Their ethnic backgrounds, respectively, are Puerto Rican and Greek-American.

"V." Family Genogram - Figure 13.



Family History and Pre-Morbid Development: Mr. V.'s early family life was marked by intense marital conflict between his parents and its divisive impact on family members. His middle sister, over time, distanced from and became critical of both her parents. She currently lives in Manhattan and is pursing a successful career as a model and designer in the fashion industry. His oldest sister has abused drugs since her adolescence and is treated as the family pariah. Mr. V. has managed to maintain a tenuous relationship with Patricia and has had a distant, often conflictual relationship with his father, particularly since his parents' divorce. He has always lived with his mother and currently shares a two bedroom apartment with her in a New York City housing project in Williamsburg. His relationship with her, since his early adolescence, has been over-close and conflictual.

Despite their 1968 divorce, which came after 22 years of marriage, the marital conflict between Mr. and Mrs. V. has never been resolved and recycles whenever they find themselves obliged to discuss issues related to their children. This was evident early in their participation in the Project when my co-therapist sought to have them cooperate with and support one another. After attending the Psycho-Educational Workshop and several PEMFT sessions, they had a dispute regarding their son and Mr. V., the elder, dropped out. During the remainder of the Project, he and his son had no contact with one another.

As for Mr. V., he is reported to have done well at school and socially with other children until he entered high school at age 14, or about five years after his parent's divorce. He began to act out at home, behaving in an angry, aggressive manner, most often towards his mother. He remembers being very unhappy at his new school, having to deal with "tough kids" who often beat him up. So unruly did he become that his mother had him hospitalized at this time at Kings County for three weeks.

Over the next four years, he managed to obtain his GED while being involved in psychiatric treatment at a variety of clinics and with a number of individual therapists. Thereafter, he entered college for a year and satisfactorily completed several courses. He also worked as a camp counselor the summer after his one year in college, which he claims to have enjoyed. For the next five years, or until his first break at age 24, he never worked again, continued intermittently in psychiatric treatment, and supported himself via monthly SSI payments.

Over this entire ten-year period, i.e., from the time he was 14 though the age of 24, Mr. V. had regular social contact only with his therapist and family members. He made no close friends and his heterosexual contacts were few and only with prostitutes.

Psychiatric History and Course of Illness: Mr. V.'s indexed Project hospitalization was his third in the five years since his first psychotic episode. The three hospitalizations were separated from one another by intervals of community tenure for Mr. V. of about 20 months.

His third hospitalization occurred when Mrs. V. called the police to restrain Mr. V. and bring him to the hospital after he succeeded in barricading himself in their apartment and locking her out for almost six weeks. He had developed a powerful paranoid delusion about her and was also responding to auditory hallucinations. He entered the Project with some ambivalence; and, in less than two months, had dropped out of treatment. He discontinued his medications and stopped attending the Day Hospital program which he had entered upon hospital discharge as well as his weekly individual treatment sessions. He had attended no PEMFT sessions up to this point and would attend only one towards the end of his Project career.

Numerous telephone contacts and several home visits by Project and Day Hospital staff members were made to attempt to persuade him to return to treatment. We shared his mother's concern that he would repeat what he had done several months earlier and force her out of her apartment again. Fortunately for Mrs. V., she was afforded the opportunity in the PEMFT sessions she attended regularly to talk of her concerns. For the first time in many years, certainly since the onset of her son's illness, Mrs. V.'s concerns were responded to as legitimate and she was provided a great deal of support and understanding by PEMFT group members. Indeed, the next four months of PEMFT sessions were largely directed to helping Mrs.

V., which allowed the group to define its role and purpose and to construct the social support network which extended beyond PEMFT sessions.

When Mr. V. began moving his mother's furniture into the hallway, Mrs. V. utilized the mental health warrant which my co-therapist had helped her obtain and summoned the police to have Ms. V. rehospitalized. By this time, at his sixth month of Project participation, Mr. V. had fully decompensated and was beset by paranoid delusions about his mother and auditory hallucinations. Once hospitalized, however, Mr. V. refused all medications and, albeit calmer, remained symptomatic for the nearly two months it took to place him on a medication regimen. This was accomplished only after Mr. V. was taken to court and ordered to comply with the treatment prescribed by his treating psychiatrist.

Mr. V. remained at Maimonides for four months. It should be noted that he was hospitalized on the private psychiatric unit, which can allow for such lengthy hospitalizations. This proved salutary for Mr. V., who was able to make certain crucial decisions before he was discharged. Specifically, he agreed to be maintained on Haldol Decanoate injections in order to facilitate his medication compliance. He also agreed to re-enter the Day Hospital on discharge and to resume his weekly sessions with my co-therapist. He continued to refuse to attend PEMFT sessions, skeptical of the reception he might receive since he knew his mother had talked of her difficulties with him there. During his last few months in the Project, he did attend several SFT sessions with his mother, where my co-therapist helped them address several issues that were the source of conflict between them.

His aim was to return to Fountain House, where he had spent several months in their Transitional Employment Program in the interval between his second and third hospitalizations. Consequently, after three months in the Day Hospital, which he attended with fair regularity and where he got to know Mr. G. and Ms. G. who were also attending the program at that time, he left and re-entered Fountain House and its Transitional Employment Program (T.E.P.). Over the next eleven months, while fully complying with his treatment regimen, Mr.V. completed a T.E.P. assignment at a Manhattan insurance company, where he worked a twenty-hour week for six months in the company's mail room and was paid its entry level wage of $6.00 per hour.

Two months before the end of his two years in the Project, Mr. V. celebrated his successful return to Fountain House and completion of his T.E.P. placement by spending a week's vacation at Disney World in Florida. This had been a long-term ambition of his; and, while he enjoyed himself there, he admitted his regret that he had had to take his trip alone.

Mr. V. was, of course, one of our treatment successes. He not only evidenced a substantial restoration of social and instrumental functioning, but also scored the second greatest reduction of symptoms registered by all experimental group patients over the course of two years, as per the PRS.

Mrs. V. was also greatly helped by her two-year involvement in the Project. She was able to greatly expand her social support network, forging strong connections with all the other mothers who attended PEMFT sessions. She also scored significant reductions in her critical reactivity to her son and in her sense of burden, and significant gains in her sense of satisfaction with Mr. V. and in her appreciation of his improved level of functioning.

At the conclusion of their Project careers, both were living in relative comfort and harmony in their Williamsburg apartment.

****

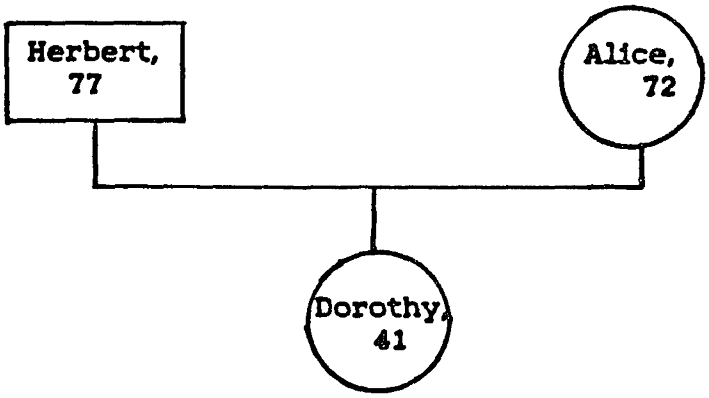
B. - CONTROL GROUP:

As stated at the outset of this chapter, the case studies that follow will be considerably briefer than those of experimental patients, since less was learned about control patients over the course of their participation in the Project. Nonetheless, these case studies will adhere to the same format as those for experimental patients and will attempt to trace control patients' courses of illness during their involvement in the Project.

1.- DOROTHY, S., STUDY SUBJECT #123, AND HER PARENTS, ALICE AND HERBERT:

Ms. S. was 41 when she entered the Project. She is the only child of two elderly parents, her father, Herbert, who was 77 at the time and her mother, Alice, who was then 72. Both were in good health and remained so throughout their two years in the Project. Their ethnic heritages are Polish and Finn, respectively.

"S." Family Genogram - Figure 14.



Family History and Pre-Morbid Development: Ms. S.'s childhood and adolescence were essentially unremarkable. She was a fair student and succeeded in completing high school. Her mother, however, recalls Ms. S. as being a solitary child, with few girlfriends and no boyfriends. Her social isolation and reliance on her parents increased throughout her late adolescence and early 20's. She was able to work but only intermittently, at short-lived office temporary secretarial jobs.

For their part, Mr. and Mrs. S. have always been loyal to and extremely supportive of their daughter and one another. Since her first psychotic break when she was 28, their lives have revolved around her and their energies devoted to her care.

Psychiatric History and Course of Illness: Ms. S.'s indexed Project hospitalization was her 16th in the 13 years since she first became ill. Her community tenure between hospitalizations averaged eight months. Over the course of her illness, her patterns of response to outpatient treatment subsequent to each psychotic episode and hospitalization remained unvaried. She was treatment resistant, initially complying with her medications and psychosocial aftercare treatment regimens, then gradually disengaging from treatment and her therapist. When decompensated, she experienced auditory hallucinations and paranoid delusions and manifested an angry, irritable affect.

For the first eight months of her involvement in the Project, she was medication compliant. She kept most of her appointments for medication evaluation with her Project psychiatrist but had no interest in seeing her assigned A.O.S. therapist. Thereafter, as per her usual practice, she began cutting back on her medication dosage, eventually discontinuing all medications as well as her sessions with her psychiatrist.

By the end of her sixteenth month in the Project, Ms. S. had relapsed and been rehospitalized. When discharged after a two week hospital stay, she continued treatment non-compliant and relapsed and was rehospitalized at the 23rd and 25th month mark. That third hospitalization concluded her participation in the Project.

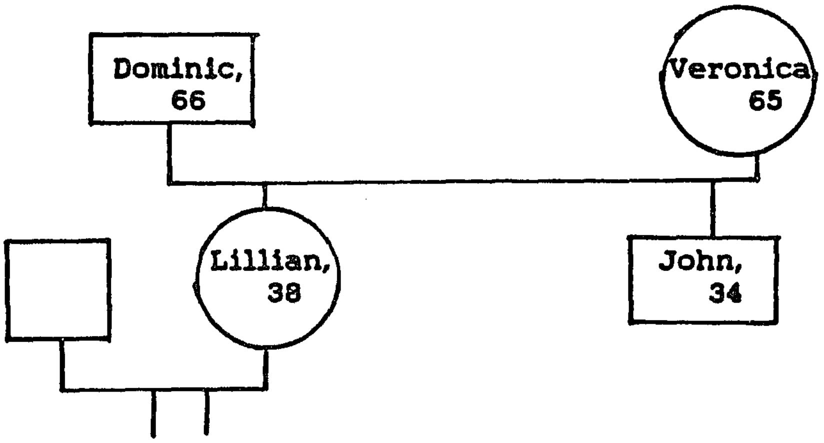
Similarly to all other control group patients, she ended the Project, as regard symptomatology, on a deteriorating note. She made no progress in improving her social and instrumental functioning, and utilized more C.M.H.C. emergency services than all other Project patients, save one. Despite her extended community tenure of 16 months, Ms. S., as per the above measures, must be considered a treatment failure.

Her parents remained unwavering in their care and support of Ms. S. throughout their Project participation. By the Project's conclusion, however, the impact of their daughter's steady deterioration was evidenced in their final SAS scores. Specifically, Mrs. S. showed a substantial increase in her sense of burden and Mr. S. in his overall dissatisfaction with his daughter. Interestingly, Ms. and Mrs. S. along with two other control group patients, scored a substantial decrease in their total SAS scores over the course of their two years in the Project. This can be attributed, at least to some extent, to an increase in under- standing on their part of the biological nature of their daughter's illness.

2.- JOHN L., STUDY SUBJECT #125, AND HIS PARENTS DOMINIC AND VERONICA:

Mr. L. was 34 years old when he entered the Project. His parents, Dominic and Veronica, were 66 and 65 respectively. Mr. L. has an older sister, Lillian, then 38, who is married, has two children and is somewhat distant from her brother. The family's ethnic background is Italian-American.

"L." Family Genogram - Figue 15.



Family History and Pre-Morbid Development: Mr. L.'s development during childhood and adolescence was essentially normative. His mother nonetheless remembers him as a quiet child, with few close friends and no steady girlfriends. Upon graduation from high school, Mr. L. entered college, did poorly, but managed to complete his first year. Thereafter, he worked at a variety of jobs, holding one as a forklift operator and truck driver at a local lumber yard for about two years. During this entire period, as per his mother, he became increasingly socially isolated. At age 24, he experienced his first psychotic episode.

Psychiatric History and Course of Illness: Mr. L.'s indexed Project hospitalization was his tenth in ten years. Since all but one of his hospitalizations were short, his community tenure between each averaged close to 12 months.

During his ten years of acute illness, Mr. L.'s social and instrumental functioning steadily declined. By the time of his entry into the Project, he was totally socially isolated, no longer made any attempts to look for work, and spent very little time in the apartment his parents had helped him maintain for several years. In actuality, he had essentially returned to live with them on a full-time basis.

The impact of Mr. L.'s deterioration on his parents was profound. Both confessed to a great deal of sorrow and sadness. Mrs. L., who had assumed responsibility for all caretaking tasks related to her son, persevered despite often feeling overburdened and overwhelmed. Her husband had simply distanced from her and from his son over the years. Interestingly, his involvement in the Project put him in closer proximity to them, as evidenced by the tremendous upsurge in his sense of burden and dissatisfaction with his son registered in his final SAS scores.

For his part, Mr. L. began his Project involvement in customary fashion. He showed no interest in meeting with his assigned outpatient therapist, making only four appointments over the course of two years and keeping only two of them. He also started out medication compliant and remained so throughout the two years, thanks in large part to his mother's vigilance and the relationship he formed with his Project psychiatrist. He never failed a medication evaluation appointment with him and agreed to Prolixin Decanoate injections 14 months into the Project.

Despite his medication compliance, Mr. L. suffered a relapse and was rehospitalized for little more than two weeks at the 20 month mark. His course of illness conformed to the findings of Hogarty, et al (1973, 1974a, 1974b), viz., that medication alone without sufficient psychosocial interventions invariably results in relapse and rehospitalization before the end of two years.

On past occasions, as per Mrs. L., marijuana abuse by Mr. L. often contributed to his decompensations. During his two years in the Project, Mr. I. smoked pot on two or three occasions within his first six months. Thereafter, as per Mrs. L., he became disinterested in seeking enjoyment of any kind and became increasingly reclusive. She reported that he left their home only to see his Project psychiatrist.

As per his PRS scores, Mr. L. experienced a sharp increase in symptomatology - +31% - during his first year in the Project. These symptoms continued unabated and led to his eventual hospitalization, which served as a much needed respite for both him and his parents. This hospitalization was apparently salutary, since Mr. L. registered a slight decline - -6% - in psychiatric symptomatology in his final PRS interview. He was only one of two control patients whose symptomatology abated somewhat during the Project's second year. His total rate of change in symptomatology over the course of two years was a substantial increase of 20.4%.

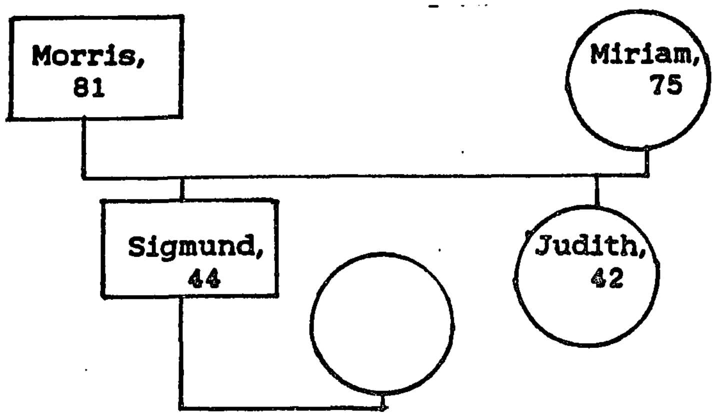
As already noted, Mr. L.'s father registered a sharp increase in his SAS scores over the Project's two years. The 19.6%

increase in his "total" second year SAS scores was second highest among all Project family participants. Mrs. L., despite a 10% increase in her sense of burden, showed no change in her "total" SAS scores over the course of her two years in the Project.

3.- <u>JUDITH W., STUDY SUBJECT #127, AND HER MOTHER, MIRIAM:</u>
Ms. W., was 42 when she entered the Project. Her parents, Morris, 81, and Miriam, 75, are first generation American-born, descended from Russian Jews. Ms. W. also has an older married brother, Sigmund, then 44, with whom she has a distant, conflictual relationship.

It should be noted that Mr. W., although present in the family home and in regular contact with Ms. W., declined to participate in the Project for health reasons. When Ms. W., entered the Project, subsequent to her indexed Project hospitalization, he was in the hospital having a foot amputated as a consequence of his diabetes. Much of his daughter's first year in the Project was spent by him recuperating.

"W." Family Genogram - Figure 16.



Ms. W.'s mother is herself somewhat frail emotionally as well as physically. Consequently Ms. W. found herself obliged to help with her father's care, a source of stress which adversely affected Ms. W. throughout her two years in the Project.

Finally, Ms. W., was one of two control patients who had been married. Her marriage was short-lived - less than a year - and ended two years prior to her entrance into the Project when her husband abruptly separated from her. She has not seen him since that time.

Family History and Pre-Morbid Development: Ms. W., throughout her grammar school years and early adolescence, was considered a problematic and troubled child. Indeed, she suffered her first psychotic break and was hospitalized at Kings County Hospital for six weeks when she was 15. Her mother also recalls her as an obstinate, argumentative child who never got along well with classmates and rarely obeyed her without some sort of a struggle. Ms. W. 's relationship with her mother from her adolescence until the recent illness of her father was marked by often bitter conflict.

Although bright, Ms. W. experienced difficulties learning in school and never returned after completing the 10th grade. Her dropping out coincided with her first psychiatric hospitalization. Much of her life from that point on has been spent by Ms. W. trying to achieve goals that she has chosen to hold on to despite admonitions from others, particularly her parents and brother, that they are beyond her capabilities. Principally, these have included working, maintaining her own apartment and having a love relationship and a family of her own.

Psychiatric History and Course of Illness: Ms. W.'s indexed Project hospitalization was her seventh. Unlike all other Project patients, she has had extended periods of community tenure between hospitalizations - an average of four plus years - which has allowed her to pursue her goals. Similarly, she has a history of medication and treatment compliance unmatched by other Project patients, which has enabled her to have some success regarding her goals.

She worked as a nurse's aide at Brookdale Hospital for two years, from the age of 17 to 19; worked as a per diem kitchen helper in Maimonides for three years, from age 30 to 33; and completed two consecutive six-month Fountain House T.E.P. placements ticketing clothing at Sears when she was 40. Subsequent to that, she periodically worked as a companion to elderly residents of the Boro Park community.

In her early 30's, while she was working at Maimonides, she also moved into her own apartment after much bitter wrangling with her mother. Finally, about ten years later, she met and married her husband. Unfortunately, he was a recently landed immigrant who abandoned her and their marriage once he obtained his green resident's card.

During the course of her two years in the Project, Ms. W. appeared to forsake all her earlier goals. She seemed weighed down by the loss of her marriage and by the issue of her parents' mortality. She evidenced no interest in pursuing employment or a new intimate relationship; and while continuing to pay rent on her own apartment, she essentially moved back in with her parents, whose care began to fall increasingly on her. True to form, she was medication compliant and was the only control group patient to regularly see her assigned therapist - at least once weekly. She also faithfully attended the C.M.H.C.'s Weekend Program, a Day

Treatment program, which was established during her second year in the Project.

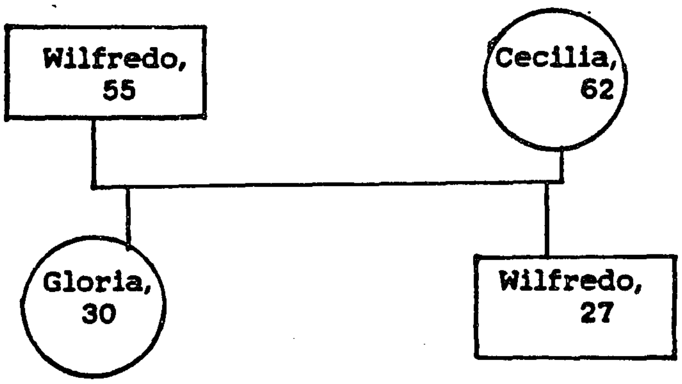
Although she managed to avoid rehospitalization, one of only two control group patients to do so, she suffered a clinical relapse six months into the Project when she developed visual distortions -spots in front of her eyes and flashing lights - for which no physical or neurological cause could be found, and began experiencing severely distorted thinking. While the latter eventually remitted, due largely to the ministrations of the Project psychiatrist and her therapist, the visual distortions remained with her, albeit with somewhat diminished intensity, throughout the remainder of her Project tenure.

In accordance with the findings of Hogarty, et al (1973, 1974a, 1974b), Ms. W.'s overall clinical decline not only continued but accelerated in her second Project year. As per her PRS scores, her symptomatology increased by 34.6% during her second year and by 35.3% over the course of her entire two years.

As for Ms. W.'s mother, her sense of burden and dissatisfaction with her daughter, as per her final SAS scores, increased by 34.4% and 66.7% respectively.

4.- <u>WILFREDO S., STUDY SUBJECT #129, AND HIS MOTHER, CECILIA:</u> Mr. S. was 27 when he entered the Project. His mother, Cecilia, was 62 and his father, Wilfredo, Sr., 55. He has an older sister, Gloria, then 30, who lives at home, is usually quite supportive of him and very much involved in helping their mother run the family household. The family is Puerto Rican in origin, with both parents born in Puerto Rico and their children in New York City. All family members are essentially acculturated, although Mrs. S.'s English is limited.

"S." Family Genogram - Figure 17.



Mr. S., Sr., was the second of two control group fathers who declined to participate in the Project, despite attending the first several joining sessions. He presented essentially as a mildly depressed man with distant relationships with all family members. When I met him, he had been out of work for a few years, suffering from a total disability of apparently physical origins.

Family History and Pre-Morbid Development: Mr. S.'s early childhood and adolescence were unremarkable. He manifested no unusual or reclusive behavior, had a number of friends whom he saw regularly, but no steady girlfriend. He was, however, an indifferent student, and dropped out of high school after the tenth grade. Thereafter, he worked at a variety of jobs, on several occasions as a security guard, most of which were short-lived.

As per Mrs. S., with whom he has always had a close relationship Mr. S. began to show early signs of illness - suspiciousness, irritability and social withdrawal - when he was 21. He experienced his first psychotic break and was hospitalized at age 24.

Psychiatric History and Course of Illness: Mr. S.'s indexed Project hospitalization was his third in a three year period. Unlike most other Project patients, his psychiatric career was relatively short and his community tenure between hospitalizations - an average of 17 months - comparatively lengthy.

Consequently, his recovery subsequent to this hospitalization was quick. It was significantly aided by his decision to become treatment compliant, a decision he had previously refused to make. As per the treatment plan worked out with him prior to his hospital discharge, he entered the Day Hospital program and attended with fair regularity for a period of five months. It should be noted that he was the only control patient who attended that program for that length of time.

He also renewed his individual treatment with his assigned outpatient therapist, whose approach was basically one of supportive, clinical case management. He succeeded in linking Mr. S. to a tutoring program conducted in the C.M.H.C. and to a GED preparatory program. Mr. S. managed to obtain his GED at the outset of his second year in the Project.

Mr. S. missed only two of 50 individual therapy appointments and was equally consistent with his medication evaluation appointments, remaining medication compliant throughout his two years in the Project. He was also one of two control group patients who did not require rehospitalization. Indeed, he did so well during his first year in the Project that, as per his PRS scores, he achieved a 27.6% reduction in symptoms, the highest rate of change of all Project patients.

At the outset of his second year, Mr. S. obtained his GED and enrolled in an Office of Vocational Rehabilitation-sponsored training program. Once again, as per Hogarty, et al (1973, 1974a, 1974b), he appeared to lack sufficient psycho-social supports and was unable to sustain his efforts. Midway through the training program, at about the Project's 21 month mark, he began to miss training sessions and dropped out by the end of his second Project year.

His difficulties, actually the increase in stress occasioned by his involvement in the training program, were reflected in his second year PRS scores, which showed a 47.6% increase in symptoms from the end of his first to the end of his second Project year. His two-year PRS scores indicated a 6.9% rise in symptoms.

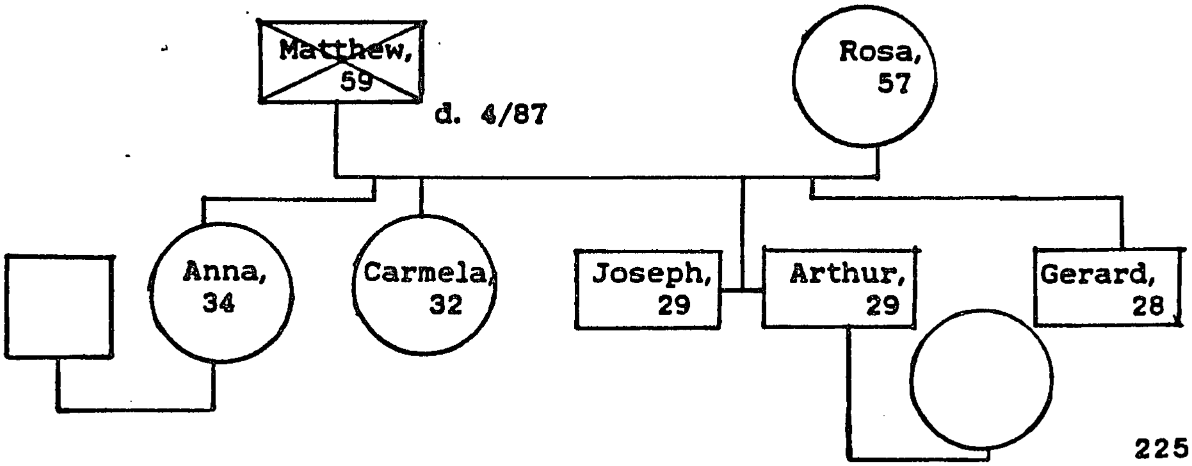
Mr. S.'s mother manifested a corresponding increase of 19.4% in her two-year SAS rejection scale scores. She became more critical of her son as his symptomatology increased and his ability to complete the training program diminished. Overall, however, she achieved the greatest improvement of all control group parents, registering declines in her sense of burden of 40.5%, in her sense of dissatisfaction of 43.1%, and in her estimation of her son's dysfunction of 30.8%. Her total two-year SAS scores showed an improvement of 19.9%.

5.- <u>JOSEPH M., STUDY SUBJECT #133 AND HIS MOTHER, ROSA:</u>

Mr. M. was 29 when he entered the Project. His mother, Rosa, was then 57. His father, Matthew, had died six months earlier of a heart attack at age 59. Both parents had immigrated to this country from Italy in 1966, when Mr. M. was eight years old.

Mr. M. has four other siblings, one of whom is his twin brother, Arthur. Arthur married and left the family home about a year prior to Mr. M.'s entry into the Project. His oldest sister, Anna, then 34, is also married. She had become increasingly involved in helping her mother since her father's death. She was also quite close to Mr. M., often playing a parental role with him. His other sister, Carmela, 32, lives at home with her mother. His youngest brother, Gerard, 28, shares with Mr. M. the basement apartment in their mother's home.

"M." Family Genogram - Figure 18.



It should be noted that Mr. M.'s father's death had a profoundly adverse impact on Mr. M. and his family. His mother became depressed, although she managed to keep working as a seamstress in a Manhattan factory. Mr. M. attempted to cope with his distress by turning increasingly to drugs, particularly crack. He also experienced a correspondingly increase in symptomatology, causing great consternation at a time of family mourning.

Family History and Pre-Morbid Development: Unlike his siblings, including his twin brother, Mr. M. never proved to be a good student. After some initial difficulty, occasioned by their poor command of English, all, save Mr. M., did reasonably well, got through school and have well-paying jobs.

Mr. M. dropped out of school after completing the 10th grade. His parents were not unduly alarmed, since he immediately proceeded to work at a variety of jobs. These, however, were short-lived - for never more than six months - and low paying - e.g., as a driver for the owner of a small manufacturing company; as a messenger for a mail delivery service.

In contrast to his twin and his other siblings, Mr. M. had few friends and no love interests. His only sexual experiences were with prostitutes. At age 20, he began to evidence early signs of his illness -irritability and suspiciousness.

Shortly, thereafter, he experienced his first psychotic break and was hospitalized.

Psychiatric History and Course of Illness: Mr. M.'s indexed Project hospitalization was his tenth in nine years. His community tenure between hospitalizations averaged eleven months and was usually marked by repeated failure on his part to comply with treatment, abortive attempts to work, periodic drug abuse, and increased family consternation at his recurring relapses and often abusive behavior.

By the time of his entry into the Project, family members, particularly his mother and oldest sister, were thoroughly exasperated with him. His behavior, which bordered on the psychopathic as a consequence of his demand for money to buy drugs, was considered disrespectful and unacceptable in view of his father's recent death. Pressure on him to change his ways or leave the family home began to mount.

Fortunately for Mr. M., he was able to connect well with his Project psychiatrist and faithfully took his monthly Prolixin Decanoate injections for all but one of his twenty-four months in the Project. His essential medication compliance served to counteract his periodic drug abuse and allowed him to score a 9.8% decrease in symptomatology, as per the PRS, during his first Project year. It also enabled him to get through his twelfth month, when he refused his injection, without relapsing. The following month he was rehospitalized in Maimonides for ten days. However, this hospitalization was occasioned more by heated family conflict with Mr. M. than by any great upsurge in symptoms on his part, and provided him and his mother a period of respite from one another. When discharged, he decided to cease his substance abuse, entered the Day Hospital program and prepared to enter an OVR-sponsored training program.

For the remainder of his time in the Project, Mr. M. adhered to his first decision and remained drug-free and medication compliant. Consequently, he reduced his symptomatology by 12.7% during his second Project year and showed the highest rate of symptom reduction of all Project patients over the course of two years, i.e., 21.3%. Nonetheless, he was unable, similar to other control patients, to sustain his efforts to improve his social and instrumental functioning. He sporadically attended the Day Hospital before being discharged at his request after two months, and he dropped out of his OVR program after only three months.

It should be noted his treatment over the course of his two years in the Project consisted principally of medication. In addition to his short sojourn in the Day Hospital, he made and kept only six appointments with his assigned outpatient therapist during that period of time.

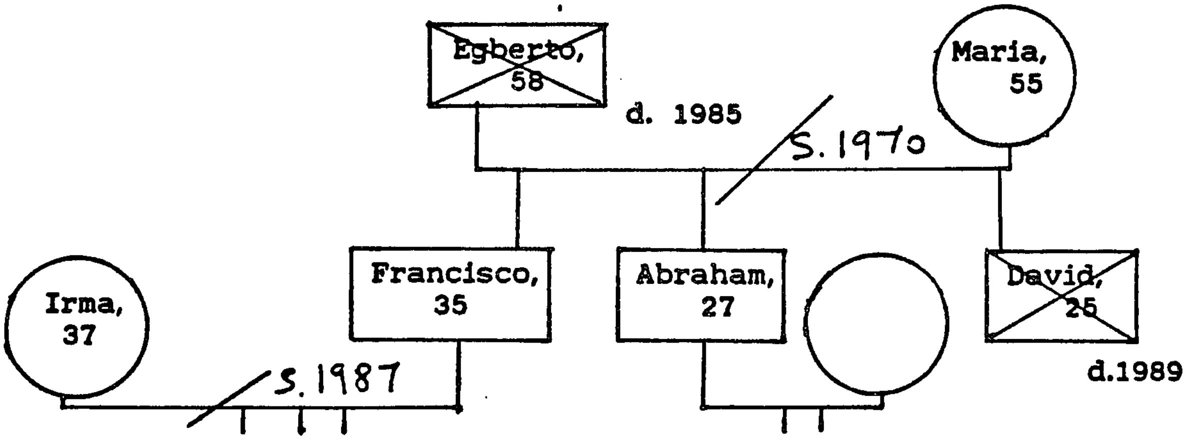
Finally, Mr. M.'s mother's SAS results reflected the overall improvement in his mental status, showing substantial improvement in all but one category of her second year SAS scores. Similarly to Mrs. S., her "rejection" scores, particularly her critical comments, showed only a slight 4.5% increase.

6.- <u>FRANCISCO A., STUDY SUBJECT #139 AND HIS MOTHER, MARINA:</u> Mr. A., who is Puerto Rican, was 35, when he entered the Project. His mother, Marina, with whom he was living, was 55. His father, Egberto, from whom his mother had separated in 1970, had died in 1985 in Puerto Rico at age 58 of a heart attack.

Mr. A. has two younger brothers, Abraham, then 27, who is married, with two children, and according to their mother, "works in computers." His youngest brother, David, was 25 and was serving a jail sentence in an upstate prison since 1983 for drug dealing. Mr. A. is himself married with three children, two girls 7 years and 15 months and a son, age 5. His wife, Irma, 37 was pregnant with their fourth child when she separated from him and returned to her family home in Puerto Rico with their children three months before his indexed Project hospitalization.

Also living with Mr. M. and his mother in her apartment were two mildly retarded young men, family relatives 20 and 21 years of age, for whom Mrs. M. was caring.

"A." Family Genogram - Figure 19.



Family History and Pre-Morbid Development: Mr. A.'s mother recalls him as a bright and personable child and adolescent. He had many friends and girlfriends and was one of the three control group patients who graduated from high school. He was also mischievous as a child and had several encounters with the police as he grew older.

He began using heroin even before graduating high school, became addicted and injected it intravenously, at least through his mid-20's. His youngest brother, David, also became an IV heroin addict, and the two often shared needles. Several months before completing the Project, Mr. A. was informed that his brother, who died in prison, had died of AIDS and, that he, too, was HIV positive.

Via a methadone maintenance program in which he participated for 2-3 years, Mr. A. ceased his heroin abuse, married, and started his family. He also secured a job as a welder in the Brooklyn Navy yard, a job he held for better than three years. He was obliged to leave that job when he began showing the first signs of his illness - suspiciousness, irritability, and distorted thinking and auditory hallucinations of low intensity. He began drinking at that point, apparently in an effort to self-medicate. Within a year, at age 30, he suffered his first psychotic break.

Psychiatric History and Course of Illness: Mr. A.'s indexed Project hospitalization was his seventh in five years. At that point, he was experiencing schizophrenic episodes at intervals that averaged ten months.

Subsequent to his first break and three-month long hospitalization in 1982, he refused all treatment, secured several low-paying, short-lived factory jobs in an attempt to support his family, but turned increasingly to alcohol to control his symptoms. In 1983, he was arrested for attempted robbery and sent upstate to prison. While there, he suffered two psychotic breaks a year apart, and was released as a consequence in 1985. Once back home, he continued attempting to work, but was unable to maintain a job for longer than three months. He also neglected to pursue treatment and suffered four relapses in little more than two years. With each decompensation, his paranoid delusions and auditory hallucinations increased in intensity and his behavior became more violent and menacing. While his wife was never physically assaulted by Mr. A., she became increasingly fearful for her and their children's safety and left him to return to her parents' home in Puerto Rico.

Mr. A. began his tenure in the Project on a hopeful note and remained medication and treatment compliant for eleven months subsequent to discharge. During that period, he saw his assigned outpatient therapist and his Project psychiatrist with fair regularity and was able to resume working at a local factory. However, he apparently became despondent at the loss of his wife and family, stopped taking prescribed medications and began drinking heavily. By the end of his first Project year, his symptomatology had increased 25.6%.

Three months later, at the fifteen month mark, Mr. A. relapsed and was rehospitalized. Six months later, after learning of his brother's AIDS-related death and that he was similarly infected, he relapsed again. His third and final Project hospitalization occurred at the twenty-three month mark and appeared to be occasioned more by symptoms of depression rather than by any overt psychotic process. Nonetheless, Mr. A. had registered a 48.9% increase in symptomatology during his second Project year, with a total two year increase of 87.2%.

Interestingly, his mother, who explained that she came to understand her son's behavior as an expression of his illness, registered a slight decrease of 1.2% in her total two year SAS scores.

It should be noted that Mr. A., in view of the accelerating pace of his decompensations and rehospitalizations, was referred to the new Intensive Case Management Program during the course of his final Project hospitalization.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR SOCIAL WORK EDUCATION

In this last Chapter, our principal findings will be summarized, conclusions regarding the nature and effectiveness of our three-part treatment intervention will be drawn, and recommendations for Social Work education will be offered.

A.- Summary of Findings:

Study outcome data substantiated four of the six hypotheses posited at the outset of the Project.

Symptomatology:

As a group, experimental subjects averaged a mean decrease in symptoms of 3.5% over two years. In contrast, control patients scored a mean symptom increase on the PRS over two years of 35.6%.

Three of the six experimental group patients experienced two-year symptom reductions of 6.1%, 6.5% and 20%; the symptomatology level of two remained unchanged; only one experienced an increase in symptomatology, of 12.5%. That particular individual, however, registered a 27.5% reduction in symptoms during the course of his second Project year; further, his symptom level at discharge from his indexed hospitalization was so low that his two-year symptom increase does not reflect an increase in psychopathology.

Regarding control group subjects, five of the six registered increases during their Project careers ranging from 6/9% to 87.2%. Only one control patient achieved a reduction in his level of symptomatology, of 21.3%, the greatest rate of symptom reduction of all study subjects.

Relapse and Rehospitalization:

The data regarding the capacity of our tripartite intervention to prevent or at least forestall experimental patients' relapses, our second hypothesis, were more equivocal. Four study subjects in each cohort suffered "broad-criterion" relapses, i.e., relapses of any duration, and four in each had to be rehospitalized. On the other hand, five of the six study subjects in each group achieved longer periods of community tenure, i.e., intervals between hospitalizations, than they ever had prior to their participation in the Project. Nonetheless, as discussed previously, the quality of relapses suffered by three experimental patients, i.e, their precipitants and attendant circumstances, differed greatly from those of three of their control group counterparts.

The latter, who had been fully medication compliant, relapsed during their second year in the Project after a steady deterioration. Further their periods of increased community tenure all occurred largely during their first Project year. This conforms to the research findings for severely and persistently mentally ill individuals with schizophrenia who do not receive appropriate psychosocial interventions (Hogarty, et al, 1793, 1974a, 1974b).

In contrast, the relapses and rehospitalizations by the three experimental patients in question appeared to be integral to the process of their engagement in treatment relationships with their Project therapists and psychiatrists and the psychoeducational/ rehabilitation treatment philosophy and treatment regimen espoused by us. All three relapsed and were rehospitalized as a consequence of medication non-compliance and all came to faithfully adhere to their treatment regimens once discharged from the hospital.

Social and Instrumental Functioning:

Their subsequent accomplishments, listed in Chapters IV and V, served to support our third hypothesis, viz., that our intervention would promote the experimental patients' improved social and instrumental role functioning. Conversely, their successes underscored our inability to help all experimental subjects equally and the limitations inherent in our three-part intervention.

Specifically, our office-bound clinical case management hampered our efforts to provide the patient we considered our one treatment failure sufficient support and appropriate community-based learning experiences. Further, the absence of advocacy and system-change components from our intervention prevented us from even addressing the mental health system-wide lack of psychosocial rehabilitative services required by the two patients who avoided relapse but were obliged to languish in Maimonides' Day Treatment programs.

Family Members' Perceptions and Social Functioning:

The group that clearly benefitted from our intervention, as per our fourth and fifth hypotheses, were the experimental patients' family members, i.e., their parents. By statistical measure and anecdotal account, all, save one, experienced a change for the better in their critical attitudes towards their ill children; all, save one, experienced a reduction in their sense of burden; all experienced reductions in their feelings of dissatisfaction with their ill children and in their estimation of their dysfunctions.

By virtue of their regular participation in PEMFT sessions, experimental family subjects expanded their social support networks. As noted earlier, PEMFT participants spontaneously continued their contacts with one another outside of scheduled sessions. They communicated with one another by telephone; and two of the mothers who were evangelical Christians periodically met with patient 011 to pray together.

During the PEMFT group's second year, most family members began to focus less on their children's illnesses and to pursue their own interests. Patient 009's widowed mother started dating a man she had met while attending a dance with patient 020's mother. The parents of patient 010 travelled several times to Florida in search of a retirement home. Patient 011's parents went off on several extended weekend vacations with one another; and patient 018's parents took him with them on a month-long trip to northern Italy to visit their extended families. This was their first trip together since the onset of their son's illness six years earlier, and reflects a lessening between father and son and husband and wife of the emotional distance that had developed in that time.

Mutual Support:

In sum, if our clinical case management facilitated the individualized treatment of the Project's experimental subjects, the PEMFT fostered the mutual support among its participants that enabled them to relieve their social isolation and improve the quality of their lives.

As per our observations, the composition of the PEMFT group appeared to be an important factor in its success. Our particular group was unusual for two reasons. First, three fathers attended PEMFT sessions for the two-plus years they were conducted. From our own past clinical experience and from the reports of the other principal family psychoeducation investigators (Falloon, et al, 1981), men rarely attend PEMFT groups. The father of patient 018, whom we succeeded in engaging and who attended PEMFT sessions with fair regularity, originally presented as typical of many men with mentally ill children. He was deeply disappointed in his son and coped with his pain and sense of loss via emotional distance. These same characteristics were evidenced by the father of patient 020, who dropped out of the Project in its beginning stages, and the fathers of control patients 127 and 129, who declined to take part in it.

The second somewhat unique aspect of the group was that two of the three fathers had primary caretaking roles with their ill children, patients 010 and 011. Again, as per our previous experience and as per the literature (Hare-Musten, 1978; Goldstein, 1979; Walters, 1988), caretaking responsibilities are usually assumed by women and mothers. Hence, their predominance at McFarlane's PEMFT (personal communication, McFarlane's Director of Research, 1989) and traditional family therapy sessions (McGoldrick, et al, 1989).

In their respective families, each of these two fathers maintained close connections with his ill child. Since both ill children were eldest - and only - daughters, the child's sex and birth order, particularly the former, were probably key variables in facilitating these relationships. Whenever his daughter became symptomatic, each father moved to assume primary responsibility for her well-being. His task was usually two-fold: to help her and, often, to have her hospitalized, and to protect and shield his spouse from further pain and upset.

Both men played similar roles in our PEMFT group. As described in an earlier chapter, patient 009 regarded their warm and accepting stance towards him on the occasion he verbally assaulted the group with paranoid anger, as a turning point in his treatment and recovery. They not only helped him to calm himself and remain with the group, but also succeeded in safeguarding the other group members, including the therapists, from additional upset.

By the time of the Project's conclusion, both men had become the acknowledged leaders of the group. Together with their spouses, they modelled mutually supportive marital relationships, which appeared to rest on the suppositions that primary allegiance was owed by the spouses to one another and not to their children and, conversely, that they could help their children only if they acted in concert.

As per our observations, their mutual support for one another was effectively used by them to cope with crises related to their children's illnesses as well as to focus on and nurture one another. Hence, their several vacation trips during the course of the Project.

However, since we did not control for this variable, it is not clear how much of a part mutual marital support played in reducing their emotional reactivity to their ill children, which reduction, as per their final SAS III scores, was substantial for all four. It is a point open to conjecture and further investigation. Nonetheless, it is noteworthy that the parents of patient 123, the only married couple in the control cohort who presented as mutually supportive, experienced a substantial reduction in their final SAS scores despite their daughter's steady deterioration during the second Project year. Possible explanations, pending further study, include a "Hawthorne" effect; the limitations of SAS III, which accounts only for reported attributes, not observed behaviors; the six psychoeducational sessions I had with them at the outset of their Project involvement, whose effect could be predicted to diminish after six months (Goldstein, Kopeikin, 1981); their mutual support for one another; or a combination of some or all of the above.

Expressed Emotion:

As for the reduction of experimental family members' expressed emotion, which is a primary outcome of our PEMFT and which has been referred to in this chapter as "emotional reactivity," several points need to be made. First, family's expressed emotion, EE, is best understood in family systems terms, i.e., as an inter-active rather than an uni-directional process.

Brown, et al (1962) originally postulated, EE, i.e., critical comments (CC) and emotional over-involvement (EOI), as proceeding from caretaker family members to their mentally ill relatives, with high EE, as measured on the Camberwell Family Interview (CFI), causing relapse. As per our observations, parental anxiety began an upward spiral as soon as the first prodromal signs were observed in their ill children; which served, in turn, to trigger irritability, suspiciousness and resentment in the latter.

Conversely, parents functioned and felt better as their children improved. This is borne out in their SAS III scores, which show a direct relationship between parental levels of EE and reactivity and patients' achievements in social and instrumental functioning. As per Hogarty (1985), however, we were not privy to what occurred between parents and patients outside of PEMFT and SFT sessions. Consequently, what sparks the EE process remains open to "chicken or egg" conjecture. Further, as pointed out earlier, the SAS III, similar to the CFI, records only attitudes reported by respondents and is inadequate in terms of pin-pointing actual behavior (Goldstein, Doane, 1985). Finally, as per Strachan, et al, (1989) high family EE is predictive of relapse only when matched by an inadequate coping style on the part of the ill family relative.

Consequently, psychoeducational treatment interventions can and should be made with severely and persistently mentally ill patients as well as with their caretaker relatives. Hogarty, et al (1986), report greatest success in forestalling relapse and improving social functioning when psychoeducational family treatment is complemented by social skills training (SST) for patient subjects. In our model, teaching experimental cohort patients coping skills, i.e., recognition of environmental and developmental stressors of prodromal signs, and medication management, was considered an ongoing process and was integral to our clinical case management practice. Supplemental learning of these skills by Project patients occurred via participation in PEMFT or in the group therapies conducted by Day Hospital therapists, who emphasized corrective social learning experiences for their patients (c.f. Hersen, Luber, 1978).

Cost-Effectiveness:

Our sixth and final hypothesis concerned the cost-effectiveness of our three-part treatment intervention. We hypothesized at the Project's outset that our intervention would have a greater cost-benefit ratio, i.e., that experimental cohort patients would achieve better outcomes at comparatively lower cost than the control group patients who received Maimonides Department of Psychiatry's standard aftercare treatment. This coincided with our Project's aim to determine whether our intervention was a cost-effective treatment strategy, i.e, whether it would secure greater treatment compliance by experimental patients, thereby reducing their reliance on outpatient emergency and inpatient hospitalization services. The data contained in the tables below fail to support our hypothesis.

Nonetheless, our findings do serve to underscore, from a financial perspective, the inability of current mental health aftercare programs to promote the rehabilitation of severely and persistently mentally ill individuals, particularly those most severely impaired.

Tables 21. and 22. clearly indicate that experimental patients were hospitalized twice as long at twice the cost as control group patients. The experimental group data is skewed by the lengthy hospitalization of patients 008 and 020. The first of patient 008's three hospitalizations was 57 days long, during which time efforts were being made to place him in an adult proprietary home. He was well enough to have been discharged in less than half that time. His third hospitalization lasted 66 days, all of which time was required for his recompensation. Were it not for effective advocacy on our part, patient 008 would have been discharged in less than a month.

The length of patient 020's hospitalization is due to its occurrence in Maimonides' private psychiatric unit. Unlike Maimonides' 9.39 emergency unit, where all other Project patients were hospitalized, the Jane B. Aron Pavilion, the private unit, is not subject to the pressures of discharge and a 60-day hospitalization limit. It is safe to say that if patient 020 had been hospitalized in the 9.39 unit, his stay would have been closer to the mean of 18 days for the other hospitalized Project patients. Nonetheless, the data presented does not support our intervention as cost-effective. Similarly, Tables 23. and 24. below, contain data that do not portray our intervention as cost-effective. Outpatient aftercare treatment for our experimental patients was again more than twice as costly as that for control group patients. Further, Tables 25. and 26., which detail and compare the total cost of inpatient and outpatient care for both groups, indicate that the larger expenditures on outpatient treatment for experimental group patients did not result in fewer inpatient days and lower hospitalization costs than those for control group patients.

ADJUSTED COST OF IN-PATIENT HOSPITALIZATIONS*

EXPERIMENTAL GROUP - Table 21.

PATIENT	NUMBER OF HOSPS.	TOTAL DAYS	AVERAGE LENGTH	AVG. COST PER DAY**	TOTAL COST
008	3	134	44.6	$264.47	$35,438
009	1	22	22	"	5,818
011	1	14	14	"	3,702
020	1	120	120	"	31,736
TOTALS	6	290	48.3	$264.47	$76,696
MEAN	***	***	***	***	***
FOUR PATIENTS	1.5	72.5	---	---	$19,174
COHORT	1	48.3	---	---	$12,782

CONTROL GROUP - Table 22.

PATIENT	NUMBER OF HOSPS.	TOTAL DAYS	AVERAGE LENGTH	AVG. COST PER DAY**	TOTAL COST
123	3	57	19	$264.47	$15,074
125	1	16	16	"	4,231
133	1	10	10	"	2,644
139	3	60	20	"	15,868
TOTALS	8	143	17.9	$264.47	$37,819
MEAN	***	***	***	***	***
FOUR PATIENTS	2	35.8	---	---	$ 9,454
COHORT	1.3	23.8	---	---	$ 6,303

* - Costs adjusted to reflect fluctuation in <u>per diem</u> Medicaid in-patient reimbursement rates, as per Financial Office, Maimonides Department of Psychiatry.

** - Average cost per day for Project patients represents fluctuation in <u>per diem</u> Medicaid reimbursement rates from low of $216.43 in 1987 to high of $492.60 in 1989, as per Financial Office.

ACTUAL COST OF OUTPATIENT TREATMENT*
EXPERIMENTAL GROUP - Table 23.

*****	OUT-	PATIENT TRE	ATMENT	*****	DAY TX.	TOTAL	OPD MONTHS	AVG./MONTH
PATIENT	INDIVIDUAL	MEDICATION	SFT	ER	*****	*****	*****	*****
008	$ 1,514.09	$ 0.00a	$ 4,213.12	$ 65.83	$ 570.71	$ 6,363.75	21	303.06
009	2,238.22b	987.45	0.00	197.49	9,539.01	12,962.17	26	498.55
010	0.00c	0.00c	0.00c	65.83	40,031.23	40,097.06	26	1,542.19
011	3,412.63d	0.00a	329.15	197.49	16,713.65	20,784.58	25	831.38
018	3,159.84	0.00a	789.96	0.00	2,608.90	6,558.76	25	262.35
020	1,895.90e	658.30	197.49	0.00	5,299.45	8,182.80	20	409.14
TOTALS	$12,220.68	$ 1,645.74	$ 5,529.72	$ 526.64	$74,763.01	$94,949.12	-----	-----
MEAN	$ 2,036.78	$ 274.29	$ 921.62	$. 87.77	$12,260.50	$15,824.85	23.8	$ 641

* - Medicaid reimbursement rate per visit - all Outpatient Treatment: $65.83.
Medicaid reimbursement rate per visit - all Day Treatment: $81.53.

a.- Medication visit same day as Individual and SFT visits - not billable.

b.- Adjusted, since half of Individual visits same day as Day Treatment visits - not billable.

c.- Adjusted, since all Out-Patient Treatment visits same day as Day Treatment visits - not billable.

d.- Adjusted, since two-thirds of Individual visits same day as Day Treatment visits - not billable.

e.- Adjusted, since one-fifth of Individual visits same day as Day Treatment visits - not billable.

ACTUAL COST OF OUT-PATIENT TREATMENT*

CONTROL GROUP - Table 24.

*****	OUT-	PATIENT TRE	ATMENT	*****	*****	*****	*****	*****
PATIENT	INDIVIDUAL	MEDICATION	SFT	ER	DAY TX.	TOTAL	OPD MONTHS	AVG./MONTH
123	$ 329.15	$ 1,119.11	$ 0.00	$ 526.64	$ 0.00	$ 1,974.90	23	$ 85.87
125	263.32	1,909.07	0.00	131.66	0.00	2,304.05	24	96.00
127	5,990.53	2,106.56	65.83	0.00	12,147.97	20,310.89	24	846.29
129	3,291.50	1,250.77	0.00	131.66	3,750.38	8,424.31	24	351.01
133	394.98	2,106.56	131.66	263.32	1,059.89	3,956.41	24	164.85
139	1,579.92	987.45	0.00	921.62	0.00	3,488.99	22	158.59
TOTALS	$11,849.40	$ 9,476.52	$ 197.49	$ 1,974.90	$16,958.24	$40,460.00	-----	-----
MEAN	$ 1,974.90	$ 1, 579.92	$ 32.92	$ 329.15	$ 2,826.37	$ 6,743.26	23.5	$ 283.72

* - Medicaid reimbursement rate per visit - all Outpatient Treatment: $65.83.

\- Medicaid reimbursement rate per visit - all Day Treatment: $81.53.

TOTAL COST: ADJUSTED INPATIENT/ACTUAL OUTPATIENT

EXPERIMENTAL GROUP - Table 25.

PATIENT	IN-PATIENT	OUT-PATIENT	TOTAL
008	$ 35,438.98	$ 6,383.75	$ 41,802.73
009	5,818.34	12,962.17	18,780.51
010	0.00	40,097.06	40,097.06
011	3,702.58	20,784.58	24,487.16
018	0.00	6,558.76	6,558.76
020	31,736.40	8,182.80	39,919.20
TOTALS	$ 76,696.30	$ 94,949.12	$ 171,645.42
MEAN	$ 12,782.72	$ 15,824.85	$ 28,607.57

CONTROL GROUP - Table 26.

PATIENT	IN-PATIENT	OUT-PATIENT	TOTAL
123	$ 15,074.79	$ 1,974.90	$ 17,679.69
125	4,231.52	2,304.50	6,536.02
127	0.00	20,310.89	20,310.89
129	0.00	8,424.31	8,424.31
133	2,644.70	3,956.41	6,601.11
139	15,868.20	3,488.99	19,357.19
TOTALS	$ 37,819.21	$ 40,460.00	$ 78,792.21
MEAN	$ 6,303.20	$ 6,743.33	$ 13,046.54

However, it is important to note that the marked imbalance in the total cost of outpatient care for each group is essentially a consequence of the imbalance in the amounts expended for day treatment services for each group. As per Tables 23. and 24., partial hospitalization and continuing treatment services utilized by experimental patients cost $58,000.00 more than those used by control patents.

Limitations:

From the Project's outset, utilization of the full range of aftercare treatment services offered by Maimonides was conceptualized as both an intervening and outcome variable. Increased utilization by experimental patients would indicate their improved social and instrumental role functioning. Treatment compliance, i.e., continued utilization of aftercare services, particularly day treatment services, would contribute to continued improvement.

Our working assumption, in short, was that utilization of aftercare services by experimental patients would serve as one step in the process of their rehabilitation. The successes of patients 009, 011 and 020, who attended the Partial Hospitalization program for 13, 16 and 4 months respectively, appeared to validate that assumption. However, we never anticipated that patient 010, who attended the Partial

Hospitalization and Continuing Treatment programs virtually every day of her Project career at a cost of over $40,000.00 would become hostage to those programs.

As pointed out earlier, patient 010, by virtue of her perfect attendance at her day treatment programs, was an excellent candidate for a psychosocial rehabilitation or supported work program. The former would have provided her with the socialization and support she received via the Continuing Treatment Program. More importantly, it would have allowed her to pursue her goal of returning to work. Since no such program existed nearby in Brooklyn, no referral could be made on her behalf. If, on the other hand, the C.T.P. had been a PRS program, patient 010 could have gone there directly from the Partial Hospitalization program, which she attended for her first 12 months in the Project.

In contrast, patient 020, subsequent to his inpatient hospitalization, attended the Partial Hospitalization program for three months and then moved on to Fountain House to enter their Transitional Employment Program (T.E.P.). It is certainly conceivable that patients 009 and 011, could have done the same just as quickly if Maimonides had a PRS program as part of its spectrum of aftercare services. This is not to say that this would have reduced the cost of aftercare services for them or their experimental patient peers. Rather it might have allowed them to pursue their rehabilitation goals more directly.

In sum, the high treatment compliance and utilization of outpatient treatment services by experimental patients, which are indicative of the salutary impact of our treatment and the willingness of our patients to follow through on those activities they were told would help them, were not used to the patients' full benefit. While it served to produce substantial revenue for the agency, our intervention did not prove cost-effective in terms of the outcomes achieved by half of our experimental patients, viz., those who were less functional. It certainly was too expensive in terms of only obtaining treatment compliance and preventing or forestalling relapse for two of these three. Similar results at much less cost, though with less income for the agency, were obtained for the control group patients.

Based on the results achieved by the latter, one could conclude that Maimonides has developed a cost-effective treatment technology to keep patients, once engaged in treatment, out of the hospital and in the community for considerable periods of time. However, the agency has yet to devise a treatment technology, cost-effective or otherwise, to promote patient rehabilitation or to engage treatment resistant or treatment refractory patients in treatment of any kind.

Our treatment intervention and the Project, in general, clearly demonstrated the existence of many patients in Maimonides -and undoubtedly many more within its catchment area - with great potential waiting to be tapped. Obvious candidates are the two control group patients who entered OVR-sponsored vocational rehabilitation programs only to fail to sustain their efforts for lack of sufficient support.

B.- Conclusions:

Regarding the Project and our study, two general conclusions can be made. One, our treatment intervention was effective, as per the salutary results for experimental patients and their families; and, two, we had little control over intra- and extra-agency or environmental factors which, for the most part, adversely affected our efforts.

MFSDP Treatment Intervention and Outcomes:

First, the Project and study enabled us to demonstrate that the three components of our treatment intervention - medication, clinical case management and PEMFT - function interactively and synergistically, with each enhancing the others. This is evidenced in the experimental patients' high rate of treatment compliance and utilization of psychosocial treatment services.

It is also characteristic of the three-part treatment alliance of patients, their parents and Project therapists that was formed during the Project's course. Our treatment alliance promoted effective clinical case management, whose primary focus throughout each patient's Project career was to individualize treatment interventions to meet patients' needs and, in the process, secure their treatment compliance. Further, it permitted therapists and parents to work collaboratively and be mutually supportive, and it allowed patients to accept support from their parents and therapists.

The PEMFT sessions, in turn, provided unique opportunities for parents to talk to and support one another, and ultimately succeeded in lowering parents' emotional reactivity to their ill children. Experimental group patients, whether they attended PEMFT sessions or not, benefitted accordingly. The two experimental patients who did attend regularly received the greatest benefits, viz., the support and acceptance of all Project parents and both PEMFT therapists, and recorded the highest achievements. The other four similarly experienced greater acceptance and support from their parents and assigned

Project therapist and were also able to score noteworthy accomplishments during their two years in the Project.

Second, each of the six experimental patients responded idiosyncratically to our treatment intervention and to the ongoing support afforded by the three-way treatment alliance. The study's low `N', as underscored in the individual case studies presented in Chapter V, enabled us to track the differential impact of the treatment intervention on individual patients and to demonstrate each's course of illness and the corresponding individualized treatment that each received.

Individualized treatment has been extolled by proponents and critics of deinstitutionalization as the key to effective community-based care for severely and persistently mentally ill individuals (Lamb, 1979, 1981; Bachrach, 1984). Nonetheless, only the intensive case management programs implemented in the last several years in Wisconsin (Stein, Test, 1985), Chicago (Witheridge, Dincin, 1985), Philadelphia (Register-Joyner, 1987), and New York State (N.Y. State Office of Mental Health, 1988) have been able to purposefully limit the size of caseloads to provide for individualized treatment plans for large groups of severely and persistently mentally ill individuals.

In our Project, individualized treatment was largely a product of our three-part treatment intervention, particularly the clinical case management component, and the three-way treatment alliance of patient, parent and therapist, which allowed for maximum input and discussion by its members.

Finally, our principal findings largely conform to those of McFarlane, et al (1991), in five key aspects:

- The impact of our treatment intervention on experimental patients was cumulative, as evidenced by the steady reduction in their symptomatology and risk of relapse and rehospitalization over the course of two years.

- Experimental patients' treatment compliance, particularly as regards medication, increased over two years. Our 83.3% medication compliance, i.e., five of six experimental patients by the Project's conclusion, compares favorably to McFarlane's reported 90%.

- Similarly, experimental patients' social and instrumental functioning increased over time, with two or 33 and 1/3% of experimental patients obtaining and sustaining paid employment as compared to 29.8% in McFarlane's PEMFT cohort.

- Our treatment intervention provided support throughout their Project careers to experimental patients, their parents and to the two Project therapists. Of particular interest to this writer, who reported in earlier chapters the support provided him and his co-therapist by PEMFT participants, is McFarlane's finding that all of his PEMFT therapists completed their two-year assignments as compared to a 50% turnover rate for PESFT therapists.

- Lastly, both studies report equally low drop-out rates for study subjects. As described in an earlier chapter, one of our experimental patients returned to Rhode Island the first day after discharge from his indexed hospitalization. The mother of another experimental patient attended only two PEMFT sessions within the Project's first two months. She had failed to attend the all-day Psychoeducational Workshop and, as per Hogarty's findings, never engaged in the PEMFT (Hogarty, 1985). McFarlane, et al, report PEMFT patient and family member drop-out rates of 12.5% for the first year and 29.0% for the entire two years (op.cit., p. 13).

Organizational and Environmental Variables:

The Project's clinical success failed to provide us with sufficient leverage to overcome the internal organizational and environmental factors then operant and attain the organizational change goals we had set for ourselves.

We proved unable to widely disseminate our findings and enlist our colleagues' interest and support. We failed to elevate our own and our fellow social workers' professional status within the agency. We were also unable to organize our PEMFT participants and similarly interested family members of other Maimonides' patients into a family advocacy group.

Our ultimate hope and expectation had been that our three-part treatment intervention, if successful, would be adopted by the agency as its treatment of choice to serve its most severely and persistently ill patients. Our single greatest disappointment in completing the Project was our inability to achieve this aim. We had not anticipated that the internal and external or environmental factors that had been adversely impacting the agency since the mid-1970's would be dramatically exacerbated during the life of the Project. By early 1989, disillusion appeared to grip the agency, the professional staff was demoralized and fragmented, and our personal leverage was correspondingly diminished.

The initiation of Medicare DRG's and a poor cash flow occasioned by an ambitious construction program earlier in the decade had put the Medical Center in financial peril. A new

CEO, hired to change this situation, had succeeded in alienating the medical and professional staffs and was demanding increased productivity and layoffs.

The Director of the Department of Psychiatry, his job reportedly threatened, began reorganizing the agency in an attempt to maximize revenues (as per intra-agency memoranda, 1989). Focusing first on the Adult Outpatient Service (A.O.S.), he obliged the unit director, the psychiatrist who treated the Project's control patients and one of our principal allies, to resign as director of the A.O.S. and accept a staff psychiatrist position in another unit of service within the agency. His basic plan called for dismantling the A.O.S. and expanding the agency's continuing treatment programs, whose Medicaid reimbursement rate was considerably higher than that for the A.O.S. Staff members, particularly in the A.O.S., became fearful of losing their jobs or being summarily transferred to another unit of service.

In such an atmosphere, we invited the agency's Director to attend a PEMFT session. Our intent, with which all PEMFT participants agreed, was to have him see first hand how well the group worked. In a subsequent meeting with him, he applauded our work but informed me and my co-therapist that he would not endorse the organization of the Psychiatric

Rehabilitation unit we had proposed to him. He explained that, given the agency's financial plight, staff efforts had to be marshalled to expand and sustain proven revenue-producing programs, viz., the continuing treatment programs for severely and persistently mentally ill patients he was proposing. Our proposal for our program's expansion, in short, represented a risk he was unwilling to take. He did support our intention to continue working with the PEMFT group and our Project patients beyond the Project's conclusion so long as it did not interfere with our other work responsibilities.

Within six months of that meeting, my co-therapist and I each were offered employment with other organizations. The job offers represented opportunities for us to continue pursuing our work with severely and persistently mentally ill individuals from positions of greater influence and responsibility. They also signified attainment by us of a final albeit personal Project goal, viz., the clinical and operational expertise to work effectively with this ill-served population. Consequently, we both decided to resign from the agency and accept the jobs offered us.

I left in June, 1989. However, I did receive permission from the agency's Director to continue data collection for the Project's control subjects, which was completed in December, 1989. That same month, my co-therapist left the agency. Since no other staff member expressed interest in working with the PEMFT group, its last session, which we both attended, was also held that month.

C.- Recommendations For Social Work Education:

A cursory review of the literature reveals substantial support for social work practice with severely and persistently mentally ill individuals and their families. Social work authors urge not only involvement but the assumption of leadership by their practitioner colleagues in case management (Rapp, Chamberlain, 1985; Johnson, Rubin, 1983) and in the psychiatric rehabilitation of severely and persistently mentally ill clients (Wintersteen, 1986).

Kanter (1985, 1988) and Harris and Bergman (1988) are leading social work practitioner-theoreticians of clinical case management with this client population. Similarly, Anderson and Hogarty (1986), both social workers, have gained national recognition for their work in developing and investigating psychoeducational family treatment interventions. Many more social workers, such as my Project co-therapist and I, have been drawn to this work out of personal interest and concern and have made professional commitments to it.

As per the literature, proponents of social work practice with severely and persistently mentally ill individuals argue the consonance of the values and aims of case management, psycho-educational family treatment and similar interventions with the traditional values and aims of social work. Robinson and Bergman (1989) trace the origins of case management to traditional social casework. Other commonalities include the focus in clinical case management on the relationship between client and case manager (c.f. Perlman, 1979), its emphasis on step-by-step problem-solving (c.f. Perlman, 1957), and its concern, shared with psychiatric rehabilitation, with the individual client and his/her individualized treatment and self-determination (c.f. National Association of Social Workers, 1984; Freedberg, 1989).

For their part, the psychoeducational interventions, whose ultimate aim is to prolong the community tenure of severely and persistently mentally ill clients, have as their focus the "person-in-environment". They seek to secure for that person the best "congruence of fit" with his/her social support network, initially comprised of close family members, that will enable the person to remain in the community (c.f. Meyer, 1979; Germain, 1979).

However, none of the above has served to secure a large-scale commitment by the profession to educate social workers to work with this client population. Rubin (1979) writes that a survey commissioned by the Council on Social Work Education between 1975 and 1978 revealed that the great majority of social work graduate students denigrated this type of work. Moreover, graduate students sought mental health field placements primarily to acquire psychodynamically-oriented psychotherapy skills. As recently as 1986, only 10% of graduate schools of social work nationwide had developed a practicum devoted to severely and persistently mentally ill clients (Fuller, Fuller, 1987).

At issue is professionals' unwillingness to work with these persons. This reluctance is peculiar not only to social workers but to all mental health professionals and has been well documented by Minkoff (1987), Bachrach, et al (1987), and others (Cole, Cole, 1987). Baldly stated, professionals find the work stigmatizing and unrewarding. The clients or patients are viewed as repugnant and unredeemable, with little hope of improving. The basic skills needed to do the work, supportive psychotherapy and the case management functions of linking and advocacy, are correspondingly belittled. Finally, work with this population is financially unrewarding; indeed, it is most often done by low-paid para-professionals.

Talbott (1984) and others (Spaniol, et al, 1987) have argued that such attitudes indicate a complete lack of appreciation for the range and depth of psychotherapeutic and management skills required by professionals to work with such ill persons. Lamb (1981) has contended that only the most skilled and experienced practitioners can work effectively with those who are most ill and most in need.

To foster these notions among psychiatrists, Talbott and the American Psychiatric Association (1981, 1988) have promoted collaborations between state governments, which bear the ultimate fiscal responsibility for the care of their severely mentally ill constituents, and university-affiliated medical schools. It is Talbott's expectation that these transactions will inject doses of reality and practice opportunities into professional training in exchange for the university's pool of brain-power and technical expertise.

In launching New York State's Intensive Case Management (ICM) Program, Commissioner of Mental Health Surles tapped the Schools of Social Work at Buffalo and Stony Brook (Rose, 1988) and the Hunter College School of Social Work in New York City (Bromberg, et al, 1991) to oversee and develop curricula for I.C.M. Training Programs in their respective regions. It should be noted that the I.C.M. Program's fundamental aim is to maintain in the community the State's most seriously mentally ill patients, i.e., those who are considered treatment resistant and refractory, who are heavy users of psychiatric emergency and hospitalization services, who are awaiting discharge after lengthy hospitalizations at State psychiatric centers, or who are homeless (N.Y.State Office of Mental Health, 1988).

The Intensive Case Managers (ICM's) hired to implement the Program are all mental health professionals, highly experienced, appropriately trained and well paid. Employment criteria for ICM's include possession of a master's degree in a mental health-related discipline and two years work experience with the I.C.M. client population discipline or a bachelor's degree with four years of relevant work experience. Salaries for ICM's employed by the New York State Office of Mental Health begin at $35,000 per year. Finally, all ICM's must receive State certification, i.e., satisfactorily complete one of the above-mentioned training programs, in order to practice as an ICM. Interestingly, almost 50% of New York City ICM's are M.S.W. social workers (Donovan, 1990).

One of the immediate consequences of this state-university collaboration for the Hunter College School of Social Work was the utilization of the core curriculum developed by its Downstate Intensive Case Management Training Project as a template for most of the ICM training done throughout the State (Bromberg, et al, 1990). A second was the adaptation of that same curriculum as the basis for an elective course entitled "Innovations in Working with Severely and Persistently Mentally Ill Individuals" and offered during the School's Spring, 1991, semester to matriculated and non-matriculated students. A complete course outline and bibliography is to be found in Appendix "B" to this dissertation.

This course, the first of its kind given at the School, is designed as an introduction to and an endorsement of work with this difficult client population. It was taught by this writer, who also serves as the Director of Training for the Hunter ICM Training Project. Similarly to the ICM training curriculum, it is framed within biopsychosocial conceptualizations of mental illness and of the treatment interventions to be employed (c.f. Gordon, 1983); it is also grounded in the social policy realities current in New York City and State.

The course begins with an appreciation of those realities, viz., homelessness, service system gaps and fragmentation, drug abuse, treatment resistance, Medicaid reimbursement formulas, etc. These are presented as either barriers or avenues to effective work with severely and persistently mentally ill individuals. It then proceeds to a biopsychosocial formulation of severe mental illness and of the several treatment approaches to be examined during the class sessions that follow. These include psychosocial rehabilitation, psychoeducational family treatment, clinical case management and lowest effective dose medication strategies.

The course concludes with a review of political and treatment strategies that can be used to overcome the barriers outlined at the course's outset. Specifically, the review covers the family and consumer advocacy movements and the various intensive case management programs that have been instituted in various sectors of the country.

Anecdotal evidence, i.e., remarks made to me by members of the class and their written evaluations at the course's conclusion, supports the notion that many students altered their notions of work with severely and persistently mentally ill clients and of the clients themselves. Students remarked on the variety of proven interventions and approaches available for this work and the skill and experience required to utilize them. They also expressed appreciation for having been provided a more optimistic and humanistic perspective with which to view these clients.

If their remarks are given credence, many now appear to regard this work as challenging, rewarding and worthwhile. Several of the non-matriculated students who are already working with this population confided that the content and tone of the course persuaded them to pursue admission to the School as fully matriculated students.

I offer the foregoing as a possible model with which to begin to change student attitudes and perceptions and to enlist their interest in working with this client population once they receive their M.S.W.'s. I trust this dissertation, in its entirety, will serve as a modest contribution towards that same end.

Appendix A

A BRIEF LITERATURE REVIEW:

McFarlane shares with the other prominent clinical investigators of schizophrenia working in the U.S., viz., Goldstein, Hogarty, and Anderson and Falloon, certain basic concepts and assumptions concerning the nature of schizophrenia and its treatment.

First and foremost, they all view schizophrenia as a biological ailment, with biogenetic and environmental factors, principally the former, seen as causative. Individuals with schizophrenia themselves are considered particularly vulnerable to stresses in their environment, which appear to trigger the acute psychotic episodes they experience.

Anderson and Hogarty characterize individuals with schizophrenia as having a "core psychological deficit,"(1) while Falloon subscribes to Zubin's and Spring's stress-diathesis model of schizophrenia, wherein individuals with schizophrenia are considered to be biologically vulnerable to developmental and ordinary life stresses.(2)

Family factors are not seen as causative, but toxic family environments, i.e., those with high levels of expressed emotion (EE), are now known to precipitate acute schizophrenic episodes or relapses among schizophrenic individuals who reside or spend long periods of time with close realities. The impact of EE on schizophrenics was first discovered and described by a group of British psychiatrists led by Brown, who, in the late 1950's, began investigating the high rate of relapse among newly de-institutionalized chronic schizophrenics who had been discharged to their families' homes.

They found that in "high" EE households, i.e., where family members were critical of, hostile towards and over-involved with their mentally ill relatives, over 50% of schizophrenics suffered relapses within six months of their hospital discharge and required re-hospitalization. This compared to a relapse rate of less than 20% for patients in "low" EE households.(3)

This causal link between high EE and patient relapse was validated in a replication by Brown of his original study published ten years later in 1972,and in a replication done by Vaughn and Leff, British colleagues of Brown, whose results were published in 1976.(4)(5) The findings of these studies were virtually identical to those of Brown's first study, as were the findings of a cross-cultural study carried out by Vaughn, Falloon and others in Los Angeles and published in 1984.(6)

Goldstein, also working in Los Angeles, became similarly concerned in the early 1970's with the almost 50% relapse rate within six months of hospital discharge of patients at the Ventura County Mental Health Center. He took note as well of their poor aftercare treatment compliance.

Accordingly, he developed an experimental research design and treatment program for first-break schizophrenics and their families to address these problems.(7) The experimental program consisted of a regimen of therapeutic dosages of depot fluphenazine, to commence upon a patient's hospital admission, plus a six-session course of single family therapy to commence as soon as the patient was discharged. The family therapy was designed, in six one-hour weekly sessions, to identify the stressors that precipitated the patient's psychosis and hospitalization and to teach patient and family members stress avoidance and coping techniques.

At six months after discharge, none of the almost fifty patients in the experimental mode had relapsed, indicating the efficacy of a medication-family therapy treatment intervention, at least for a time-limited period. A follow-up study, however, conducted by Goldstein and his colleagues at three to six years after the completion of the treatment program showed no lasting therapeutic effects for the patient participants. This led Goldstein to hypothesize that a treatment program of longer duration would have a greater and longer-lived impact on its participants.

The follow-up did show that almost 70% of those patients who had a history of poor pre-morbid functioning were still utilizing Ventura County's mental health services. This appeared to confirm a link earlier hypothesized by Goldstein between poor pre-morbid functioning on the part of patients and the possible chronic course of their illnesses.(8)

Hogarty, before his association with Anderson, conducted experimental studies in the 1970's to test the effectiveness with chronic schizophrenic patients of a two year-long program of pharmacotherapy and psychosocial interventions.

In his first two year study, he utilized what he termed Major Role Therapy (MRT), defined by him as a combination of social casework and vocational rehabilitation counseling, in combination with fluphenazine injections. He found that medication alone offered the best protection against relapse for his study subjects during their first year of participation in the treatment program. In fact, MRT only appeared to exacerbate the symptoms of patients who evidenced residual schizophrenic symptomatology during that fist year.(9)(10) However, by the eighteenth month mark, MRT appeared to be working additively and possibly interactively with the prescribed medication. Their combined impact served to ameliorate symptomatology more effectively and promote improved social functioning.(11)

In a later two year study, Hogarty found that only a treatment regimen of adequate doses of injectable fluphenazine - to ensure medication compliance - and social therapy (ST) - social casework with periodic family interventions - prevented relapse for chronic schizophrenics during their second year of treatment.(12) He concluded here that the ST had enhanced the patients' social functioning and coping skills, affording them sufficient protection against potentially toxic family environments.

These findings coincided, for the most part, with those of the studies cited above of "expressed emotion" (EE) conducted by Brown and associates and Leff and Vaughn in London. when Hogarty teamed with Anderson, then, in the late 1970's, they developed a controlled study to test the effectiveness of a treatment program similar to that of Leff and Vaughn, designed to address the issues of family guilt, stigma and burden and, in the process, to lower family expressed emotion and prevent patient relapse. Terming the experimental program Psycho-Educational Family Treatment (PEFT), they lent a name to a treatment approach in the psychiatric aftercare of chronic schizophrenic patients that has been gaining wider acceptance since 1980 and the publication of their first findings.(13)

As conceived by Hogarty and Anderson, PEFT comprises four sequential phases over the course of a one to two year period:

- engagement of the patient and family in treatment during the patient's hospitalization.
- the Survival Skills Workshop, the psycho-educational component of the program, conducted in an all-day session for family members only, while the patient is still hospitalized;
- the clinical or treatment phase, consisting of bi-weekly single family therapy sessions for about a year, which commences upon the patient's hospital discharge and whose focus is the family's management of their relative's illness and his/her rehabilitation;
- finally, the disengagement phase, where the family terminates from the family sessions and is referred to either more intensive, relationship-oriented family therapy or to periodic maintenance sessions.

Results reported to date have been highly favorable. By 1980, when the program's first findings were published, no relapses had occurred among the twelve patients treated for a year in the experimental family mode.(14) A 1981 update reported only two relapses among 28 patients seen for more than a year in family treatment, a relapse rate of less than 10%.(15) The latest report, in 1984, told of a 16% relapse rate among thirty-three family mode patients.(16) Hogarty and Anderson attributed this gradual increase in relapse to the increased stress encountered by patients as they seek to resume normal social functioning in the second year of their treatment.

The key and unique feature of PEFT is the Survival Skills Workshop where, in a multi-family format, Hogarty and Anderson provide information to family members about the nature of schizophrenia, its hypothesized causes, its usual course and treatment, including medication and its side effects, and coping and management techniques. the aim here is three-fold: to relieve family members' guilt by providing them with rational explanations for much of what they're been experiencing while living with their ill relative; to enlist them as allies in the treatment process by providing them with both the information and the respect long withheld them by professional, who have been wont to blame rather than help families; ultimately, to help them regain the control over their own lives they have undoubtedly relinquished in the course of caring for their ill relative.

Both Falloon and McFarlane have essentially adopted Hogarty and Anderson's four-phase treatment intervention, particularly the psycho-educational approach taken by them. Falloon, however, more so than McFarlane, has made substantially more modifications to suit his own specific purposes.

Falloon is a behavioral family therapist who is primarily concerned with teaching families the communication and problem-solving skills they, including their severely and persistently mentally ill relatives, need in order to effectively manage the course of schizophrenic illness in their homes and assist in their relatives' restoration to social functioning. Specifically, he seeks via his Behavioral Family Management Training(17) to provide chronic schizophrenic patients with the coping skills they need to deal effectively with the stressors they encounter. He is also cognizant of the tremendous burden that de-institutionalization has placed on the families of the chronically mentally ill for their management and care. He is anxious to both enlist the family as a crucial ally in the aftercare of its schizophrenic relative and to help all family members and relieve their sense of burden and social isolation. Hence, the "family=-focus" of the treatment intervention.

Lastly, he wants to ensure that whatever individuals learn in therapy will be put to use in real life. His solution, therefore, to the problem of generalizability is to conduct his treatment in single family sessions in the family's own home.

Falloon is the first of the psycho-educational family investigators to complete a two-year long controlled study of his particular approach. As a consequence of two pilot projects, the first conducted in London in 1975,(18)(19) the second a few years later in Los Angeles,(20) he had concluded that affective aftercare treatment for this population should include the following: maintenance on the lowest possible dose of neuroleptics to minimize side effects and ensure compliance; education of both patient and family as to the nature of schizophrenia, its hypothesized etiology, course and treatment; family training in communication skills; family training in problem-solving skills.

He thereupon, in 1980-81, designed a controlled study where forty chronic patients, residing with high EE families, were equally divided and randomly assigned to an experimental family management group or to an individual supportive management control group.(21)(22)(23)

The treatment program for all patients was two years, with initial outcome evaluation at nine months and follow-up at completion of treatment. Each also received the lowest dose possible of maintenance neuroleptics, either orally by tablet or, in cases of poor compliance, by injection.

While patients in the control group were seen only individually for the full two years, with family intervention by their therapists as needed, the family management patients were seen with their families in forty family sessions over the two years, with single family sessions conducted weekly for the first three months and bi-weekly for the next six months, all in the family's home. Over the final fifteen months, families had the option of continuing in monthly single family sessions at home or monthly MFT sessions in the clinic.

Falloon decided on the innovation of in-home family sessions to assure greater treatment compliance by patient and family and to achieve improved generalization by family members of behavior learned in the therapy. The fact that not only family session was ever missed during the course of the program appears to support that decision.

The final results, reported when all patients had completed the two year program, were highly favorable.(24) Relapse, with relapse defined as exacerbation of florid schizophrenic symptoms requiring either hospitalization or increase in medication, was suffered by only one of the eighteen family treatment patients who completed the program as opposed to eight of the eighteen individual treated patients who finished.

Patients in the experimental group also showed an increased social adjustment, with a greater number involved in paid employment and training or education in their first year of treatment. This involvement increased for this group in their second year while it actually declined for the control group patients.

Family members in the family mode showed a steady decrease in their subjective sense of burden over the two years, recording a dramatic decrease at nine months and virtual extinction at two years. Family members of the individually treated patients, also seen from time to time in family sessions for crisis management, reported an increase in their sense of burden at nine months, with a gradual decline thereafter.

Finally, and contrary to what might be expected, the cost of the in-home family treatment, particularly in its second year, proved substantially lower than the individual treatment. This is accounted for in the greater number of extra appointments for the latter group of patients in emergency visits and visits for medication injection, s well as for many more days spent in the hospital.

McFarlane is a community psychiatrist affiliated with the New York Psychiatric Institute. He developed a multi-family psycho-educational approach to the treatment of chronic schizophrenics and their families, which he termed Psycho-Educational Multi-Family Therapy (PEMFT), after having trained with the late Peter Laquer at Creedmoor Psychiatric Center, in Queens, New York. It was Laquer who, in the late 1960's and early 1970's, had developed at Creedmoor MFT, a treatment for hospitalized mental patients and their families.(25)(26)

In the development of PEMFT McFarlane has also drawn on the social support theories of Gerald Caplan(27)(28) and on the work of his colleague at The New York Psychiatric Institute (NYPI), C.C. Beels, who has also utilized social support theory to develop treatment strategies for chronic schizophrenics and their families.(29)(30)

While McFarlane has been conducting PEMFT at NYPI for several years now and has reported good results, he has compiled no hard and fast data to date. To remedy this, he has designed a two-year long controlled study to test the clinical and cost effectiveness of PEMFT with chronic schizophrenic patients and their families. Under the sponsorship of the new York State Office of Mental Health (OMH), this study commenced at six sites scattered throughout the state at the end of last year, with results expected for publication in 1991.(31)

McFarlane's aims for PEMFT are precisely those put forward by his colleagues, viz., to alleviate patients' symptomatology, obviate their relapse and promote their improved social functioning. PEMFT's approach to achieving these ends is unique in that it focuses directly on five inter-related emotional difficulties presented by virtually all the families who enter PEMFT, although with varying degrees of intensity. The first of these and the most crucial to address to ensure a successful treatment experience for the family is their level of expressed emotion. since the majority of families enter PEMFT with a high level of EE, it is essential to lower their EE as quickly as possible.

McFarlane has redefined his definition of ED to coincide more closely with Minuchin's concept of enmeshment.(32) He thus defines high EE as not only the expression of angry, critical remarks directed by family members towards the patient but also as their emotional over-involvement with him or her.

While he considers high EE to be predictive of and a causative factor in triggering relapse, he considers the other problems presented by families more as consequences of the illness itself - communication deviance, social stigma, burden and social isolation. As stated earlier, McFarlane considers these emotional difficulties to be inter-related with one another and, particularly with EE, to be mutually exacerbative.(33)

Like Hogarty and Anderson, he views a schizophrenic individual as having a "core psychological deficit," and as thus being highly susceptible to environmental stimuli and vulnerable to the stresses thereof. Consequently, his principal hypothesis is that if the consequence of schizophrenia for the family, particularly its burden and social isolation, can be relieved, its level of EE can be lowered and the patient's relapse avoided. His main treatment assumption, therefore, is that the social support function of PEMFT to relieve families' sense of burden and isolation is essential to the attainment of the treatment goals.

From the very outset and with increasing emphasis throughout the two-year long treatment program, McFarlane seeks to encourage patients and their relatives to learn from and teach one another. His aim is to have them become experts in the management of the illness in their own right. Only through such an experience of mutual validation, McFarlane believes, can socially isolated individuals attain a sense of their self-worth as well as a semblance of control over their own lives.

His long-range goal for PEMFT participants, which could be accomplished by the end of their two years together, calls for them to form their own mutual support group, for which they and not professionals would provide the leadership. Such a group could continue its educational and support functions for group members; would serve as a natural referent for those patients and families who follow them in PEMFT; and, finally, could engage in the political and legislative advocacy required to secure needed service.

In his research protocol, McFarlane holds out the possibility of such groups affiliating with the National Alliance for the Mentally Ill (NAMI). As a community psychiatrist, he appears acutely aware of the extent to which patients' and families' disenfranchisement from the American mainstream, evidenced by the lack of community-based services, is a product of the social stigma attached to them. Much as a good community organizer would, he sees the need and has attempted to make provision for disenfranchised individuals to organize and struggle together to obtain the help and services they require.

According to McFarlane's research protocol, 36 chronic schizophrenic patients and their families will be treated at each of six community-based treatment facilities, for a total cohort of 216 patients and their families. They will be divided randomly and equally between experimental PEMFT groups and control groups where treatment will consist of Psycho-Educational Single Family Therapy (PESFT). The aim, thus, is to test the clinical cost-effectiveness of PEMFT as compared to PESFT in treating this population.

Patients and families for both groups will be recruited while patients are still hospitalized and recompensating from acute psychotic episodes. This is to ensure better engagement by them into the program. Patient eligibility will be determined by a diagnosis of chronic schizophrenia according to DSM-III criteria, patient willingness to be involved in the program and to comply with prescribed maintenance medications. Family members will also have to give their consent in order to participate in the program. They will be informed of the two-year course of the program and asked to make commitment, in so far as they are able, to attend for that length of time.

All PEMFT participants - in any one treatment site there will be three groups of six families each - will meet on a weekly basis for the first six months, bi-weekly for the next year, then monthly during the last six months. The first eighteen months will be devoted to teaching families and patients about schizophrenia as well as coping skills to handle patient management and related issues as they arise. It is to be hoped that each PEMFT group will have coalesced sufficiently to allow the tasks of the final six months of the program to be carried out. These include termination, referrals to follow-up treatment if indicated and desired, and the decision by those who complete the program as to whether or not they will establish their own independent support group.

The control group members will also be seen in weekly sessions during the program's first six months. Thereafter and until the program's completion, they will be seen in PESFT on a bi-weekly basis. Their tasks will essentially b the same as those in the experimental cohort during the first eighteen months. However, they will do what they have to do on their own without the natural support afforded the PEMFT members. During their final six months, they will be coached by their therapists to reach out to family and friends in an attempt to construct their own networks for emotional social support.

NOTES

1. Anderson, C.M., Hogarty, G.E., Reiss, D.J., "Family Treatment of Adult Schizophrenic Patients: A Psycho-Educational Approach," Schizophrenia Bulletin, Vol. 6, No. 3, 1980, pp. 490-505.

2. Zubin, J., Spring, B., "Vulnerability: A New View of Schizophrenia," Journal of Abnormal Psychology, Vol. 86: 103-126, 1977.

3. Brown, G.W., Monck, E.M., Carstairs, G.M., Wing, J.K., "Influence of Family Life on the Course of Schizophrenic Illness," British Journal of Preventive and Social Medicine, Vol. 16: 55-68, 1962.

4. Brown, G.W., Birley, J.L.T., Wing, J.K., "Influence of Family Life on the Course of Schizophrenic Disorders: A Replications," British Journal of Psychiatry, Vol. 121: 241-258, 1972.

5. Vaughn, C.E., Leff, J.P., "The Measurement of Expressed Emotion in the Families of Psychiatric patients," British Journal of Social and Clinical Psychology, Vol. 15: 157-165, 1976.

6. Vaughan, C.E., Snyder, K.S., Jones, S., Freeman, W., Falloon, I.R.H., "Family factors in Schizophrenic Relapse: A Replication in California of British Research on Expressed Emotion," Archives of General Psychiatry, Vol. 41, Dec. 1984: 1169-1177.

7. Goldstein, M.J., Kopeikin, H.S., "Short and Long-term Effects of Combining Drug and Family Therapy," in Goldstein, M.J., Ed., New Developments in Interventions With Families of Schizophrenics, Jossey-Bass, San Francisco, 1981.

8. Goldstein, M.J., Kopeikin, H.S., "Short and Long-term Effects of Combining Drug and Family Therapy," in Goldstein, M.J., Ed., New Developments in Interventions with Families of Schizophrenics, Jossey-Bass, San Francisco, 1981.

9. Hogarty, G.E., Goldberg, S.C., and Collaborative Study Group, "Drug and Socio-therapy in the Aftercare of Schizophrenic Patients: One-year Relapse Rates,"

Archives of General Psychiatry, Vol. 28, January, 1973, pp 54-63.

10. Hogarty, G.E., Goldberg, S.C., Schooler, N.R., Ulrich, R.F., and Collaborative Study Group, "Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: II. Two year Relapse Rates,", Archives of General Psychiatry, Vol. 31, Nov., 1974, pp 603-608.

11. Hogarty, G.E., Goldberg, S.C., Schooler, N.R., and Collaborative Study Group, "Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: III. Adjustment of Non-relapsed Patients," Archives of General Psychiatry, Vol. 31, Nov. 1974, pp 609-618.

12. Hogarty, G.E., Schooler, N.R., Ulrich, R.F., Mussare, F., Ferro, P., Herron, E., "Fluphenazine and Social Therapy in the Aftercare of Schizophrenic Patients, " Archives of General Psychiatry, Vol. 36, Nov., 1979, pp. 1283-1294.

13. Anderson, C.M., Hogarty, G.E., Reiss, D.J., op. cit.

14. Ibid.

15. Anderson, C.M., "A Psychoeducational Program for Families of Patients with Schizophrenia," in McFarlane, W.R., Ed, op. cit.

16. Anderson, C.M., "A Psychoeducational Program for Families of Patients with Schizophrenia," in McFarlane, W.R., Ed, op. cit.

17. Falloon, I.R.H., Boyd, J.L., McGill, C.W., op. cit., chapters 13, 14, 15.

18. Falloon, I.R.H., Lieberman, R.P., Lillie, I.F.J., Vaughn, C.E., "Family Therapy of Schizophrenics with High Risk of Relapse," Family Process, Vol. 20, June, 1981, pp. 211-221.

19. Falloon, I.R.H., Boyd, J.C., Mcgill, C.W., "Behavioral Family Therapy for Schizophrenia," in Curran, J.P., Monti, P.M., Eds., Social Skills Training, Guilford Press, New York: 1982.

20. Falloon, I.R.H., Boyd, J.C., McGill, C.W., "Behavioral Family Intervention in the Management of Chronic Schizophrenia," in McFarlane, W.R., Ed., op. cit.

21. Falloon, I.R.H., Boyd, J.C., McGill, C.W., Razani, J., Moss, H.R., Gilderman, A.M., "Family Management in the Prevention of Exacerbations of Schizophrenia: A Controlled Study," New England Journal of Medicine, Vol. 36, No. 24, June, 1982, pp. 1437-1440.

22. Falloon, I.R.H., Boyd, J.C., McGill, C.W., Strang, J.S., Moss, H.B., "Family Management Training in the Community Care of Schizophrenia," in Goldstein, M.J., Ed, op. cit.

23. Falloon, I.R.H., et. al., Chapters 13, 14, 15, op. cit.

24. Ibid.

25. Laquer, H.P., "Mechanisms of Change in Multi-Family Therapy," in Sager, C.J., Kaplan, H.S., Eds., Progress in Group and Family Therapy, Brunner/Mazel, New York, 1972.

26. __________, "Multiple Family Therapy," in Guerin, P.J., Ed., Family Therapy, Gardner Press, New York, 1976.

27. Caplan, G., Support Systems and Community Mental Health, Behavioral Publications, Inc., New York, 1975.

28. __________, "Master of Stress: Psychological Aspects," American Journal of Psychiatry, Vol. 138: 412-420, 1981.

29. Beels, C.C., "Social Networks, The Family and the Schizophrenic Patient," Schizophrenia Bulletin, Vol. 6, No. 4, 1978, pp. 512-520.

30. __________, "Social Support in Schizophrenia," Schizophrenia Bulletin, Vol. 7, No. 1, 1981, pp. 58-72.

31. McFarlane, W.R., "The Family Support Demonstration Project," N.Y. State Office of Mental Health, Mimeographed, 1984.

32. __________, "Multiple Family Therapy in Schizophrenia," in McFarlane, W.R., Ed, Family Therapy in Schizophrenia, Guilford Press, New York, 1983.

33. Ibid.

APPENDIX B

"Innovations in Working with
Severely and Persistently
Mentally Ill Individuals"

Hunter College
School of Social Work

Course: SSW791.77 - Spring, 1991

SSW 791.77 - Innovations in Working with Severely and Persistently Mentally Ill Individuals

Jack Carney, C.S.W., Instructor

Course Outline and Schedule of Classes

I	January 31:	Introduction: Course Description and Requirements
II	February 7:	Barriers to Working Effectively with Severely and Persistently Mentally Ill Individuals
III	February 14:	Overcoming Treatment Barriers: Philosophy and Practice Principles*
IV	February 28:	Biopsychosocial Conceptualization of Severe and Persistent Mental Illness
V	March 7:	Psychosocial Rehabilitation: Values and Practice Principles
VI	March 14:	Psycho-educational Interventions with Families and Individuals
VII	March 21:	Individualized Treatment Interventions: Clinical Case Management and Lowest Effective Dose Medication Strategies
VIII	March 28:	Clients and Their Families as Allies in the Treatment Process and Political Activists
IX	April 11:	Overcoming Systems Barriers: P.A.C.T. in Wisconsin; I.C.M. in New York**
X	April 18:	Overcoming Systems Barriers, contd.

* - One to two paragraph description of topic/theme of class paper due

* - Ten to twelve page class paper due

SSW 791.77 - Innovations in Working with Severely and Persistently Mentally Ill Individuals

Jack Carney, C.S.W., Instructor

Course Requirements

1. All students are expected to attend all ten class sessions. Nonetheless, two excused absences will be allowed each student. More than two absences, excused or otherwise, will result in a grade of "Fail".

   Students are advised to excuse themselves prior to the sessions they miss. Messages can b left for me at the School either in my office, Room 520, 5th floor, or by calling (212) 452-7117.

2. All students are expected to complete and hand in by Session IX (April 11), a 10-12 page paper on any aspect of the community treatment and rehabilitation of severely and persistently mentally ill individuals.

   By Session III (February 14), each student will have turned in a brief (one to two paragraph) description of the topic or issue his/her paper will treat.

3. Students are also expected to complete all required readings and to prepare themselves to fully participate in each class session.

   It should be noted that class participation is highly valued. One-third of each student's final grade will be based on his/her contributions to classroom discussion.

SSW 791.77 - Innovations in Working with Severely and Persistently Mentally Ill Individuals

Jack Carney, C.S.W., Instructor

READINGS

II Barriers to Working Effectively with Severely and Persistently Ill Individuals

* - Required

Bachrach, L., Talbott, J., Meyerson, A., "The Chronic Psychiatric Patient as a 'Difficult' Patient: A Conceptual Analysis," in Meyerson, A., Ed., Barriers to Treating the Chronic Mentally Ill, New Directions for Mental Health Services, Jossey-Bass, San Francisco, No. 3, Spring, 1989, pp. 35-50.

Minkoff, K., "Resistance of Mental Health Professionals to Working with the Chronic Mentally Ill," in Meyerson, A., op. cit., pp 3-20.

__________, "Beyond Deinstitutionalization: A New Ideology for the Postinstitutional Era," Hospital and Community Psychiatry, Vol. 38, No. 9, September, 1987, pp. 945-950.

Rochefort, D., "The Political Context of Mental Health Care," in Mechanic, D., Ed., Improving Mental Health Services: What the Social Sciences Can Tell Us, New Directions for Mental Health Services, Jossey-Bass, San Francisco, No. 36, Winter, 1987, pp. 93-106.

Sharfstein, S., "Reimbursement Resistance to Treatment and Support for the Long Term Mental Patient," in Meyerson, A., Ed., op. cit., pp. 75-86.

Sharp, M.L., "Out of the Streets and into the Subculture: Psychiatry's Problem from a Patient's Perspective," in Meyerson, A., Ed. op. cit., pp. 63-74.

Estroff, S., "Self, Identity and Subjective Experiences of Schizophrenia: In Search of the Subject," Schizophrenia Bulletin, Vol. 15, No. 2, 1989, pp. 189-196.

Strauss, J., "Subjective Experiences of Schizophrenia: Toward a New Dynamic Psychiatry - II," Schizophrenia Bulletin, Vol. 15, No. 2, 1989, pp. 179-187.

Additional:

Beels, C.C., "Social Networks, The Family, and the Schizophrenic Patient: Introduction to the Issue," Schizophrenia Bulletin, Vol. 4, No. 4, 1978, pp. 517-521.

__________, "Social Support and Schizophrenia," Schizophrenia Bulletin, Vol. 7, No. 1, 1981, pp. 58-72.

Martin, M., Nayowith, S., "Creating Community: Group Work to Develop Social Support Networks with Homeless Mentally Ill," Group Work with the Poor and Oppressed, Hayworth Press, N.Y., pp. 79-92.

IV Biopsychosocial Conceptualization of Severe and Persistent Mental Illness

* - Required

Andreasen, N., The Broken Brain, Harper & Row, New York, 1984, Chapter 3 and 4.

Harding, C., Zubin, J., Strauss, J., "Chronicity in Schizophrenia: Fact, Partial Fact, or Artifact," Hospital and Community Psychiatry, Vol. 38, No. 5, May, 1987, pp. 477-486.

Mendel, W., Treating Schizophrenia, Jossey-Bass, San Francisco, 1989, Chapters 1, 3 and 11.

Additional:

Cnaan, R.A., et al, "Psychosocial Rehabilitation: Toward a Definition," Psychosocial Rehabilitation Journal, Vol. 11, No. 4, April, 1988, pp. 61-78.

__________, "Psychosocial Rehabilitation: Toward a Theoretical Base," Psychosocial Rehabilitation Journal,, Vol. 13, No. 1, July, 1988, pp. 33-56.

Farkas, M.D., Anthony, W.A., Eds., Psychiatric Rehabilitation Programs: Putting Theory Into Practice, Chapters 1 and 5, John Hopkins University Press, Baltimore, Md, 1989.

VI Psycho-Educational Interventions with Families and Individuals

* - Required

Anderson, C.M., Hogarty, G.E., Reiss, D.J., "Family Treatment of Adult Schizophrenic Patients: A Psycho-Educational Approach," Schizophrenia Bulletin, Vol. 6, No.1 3, 1980, pp. 490-505.

Berkowitz, R., et al, "Lowering Expressed Emotion in Relatives of Schizophrenics," in Goldstein, M.J., Ed., New Developments in Interventions with Families of Schizophrenics, New Directions for Mental Health Services, Jossey-Bass, San Francisco, No. 12, December, 1981, pp. 27-48.

Falloon, I.R.H., et al,"Social Skills Training for Chronic Mental Patients," Hospital and Community Psychiatry, Vol. 36, No. 4, April, 1985, pp. 396-403.

McFarlane, W.R., "Multiple Family Therapy in Schizophrenia," Chapter 6, in McFarlane, W.R., Ed., Family Therapy in Schizophrenia, Guilford, N.Y., 1983.

Falloon, I.R.H., Liberman, R.P., "Interactions Between Drug and Psychosocial Therapy in Schizophrenia," Schizophrenia Bulletin, Vol. 9, No. 4, 1983, pp. 543-554.

Gunderson, J.G., et. al., "Effects of Psychotherapy in Schizophrenia: II. Comparative Outcome of Two Forms of Treatment," Schizophrenia Bulletin, Vol. 10, No. 4, 1984, pp. 564-585.

Harris, M., Bergman, H.C., "Clinical Case Management for the Chronically Mentally Ill: A Conceptual Analysis," in Harris, M. and Bachrach, L., Eds., Clinical Case Management, New Directions for Mental Health Services," Jossey-Bass, San Francisco, No. 40, Winter, 1988, pp. 5-14.

Kanter, J., "Psychosocial Assessment in Community Treatment," in Kanter, J., Ed., *Clinical Issues in Treating the Chronically Mentally Ill,* New Directions for Mental Health Services, Jossey-Bass, San Francisco, NO. 27, September, 1985, pp. 63-75.

__________, "Case Management of the Young Adult Chronic Patient and Substance Abuse," *Tie Lines,* Vol. 1, January, 1984 (and attached articles by A. Bauer, K. Sciacca, E. Hendrickson and P. Parchem).

Test, M.A., et al, "Substance Abuse in Young Adults with Schizophrenic Disorders," *Schizophrenia Bulletin,* Vol. 15, No. 3, 1989, pp. 465-476.

VIII Clients and Their Families as Allies in the Treatment Process and Political Activists

* - *Required*

Community Support Network News, "Consumer/Ex-Patient Initiatives," Vol. 5, No. 2, November, 1988.

__________, "Stigma and Discrimination," Vol. 6, No. 4, May, 1990.

Howe, C.W., Howe, J.W., "The National Alliance for the Mentally Ill: History and Ideology," in Hatfield, A., Ed., *Families of the Mentally Ill: Meeting the Challenges,* New Directions for Mental Health Services, Jossey-Bass, San Francisco, No. 34, Summer, 1987, pp. 23-24.

Intagliata, J., et al. "Role of the Family in Case Management of the Mentally Ill," *Schizophrenia Bulletin,* Vol. 12, No. 4, 1986, pp. 699-708.

Additional:

Borland, A. et al, "Outcomes of Five Years of Continuous Intensive Case Management," *Hospital and Community Psychiatry,* Vol. 40, No. 4, April, 1989, pp. 369-376.

New York City Department of Mental Health, Mental Retardation and Alcoholism Services, "Intensive Case Management in New York City," mimeo, 1988.

Stein, l.I., Test, M.A., "The Evolution of the Training in Community Living Model," in Stein, L.I., Test, M.A., eds., <u>The Training in Community Living Model: A Decade of Experience</u>, New Directions for Mental Health Services, Jossey-Bass, San Francisco, No. 26, June, 1985, pp. 7-16.

X Overcoming Systems Barriers

* Required:

Lefley, H.P., Culture and Chronic Mental Illness," Hospital and Community Psychiatry, Vol. 41, No. 3, March, 1990, pp. 277-286.

Mechanic, D., Aiken, L. H., "Capitation in Mental Health: Potentials and Cautions," in Mechanic, D., Aiken, L.H., eds., Paying for Services: Promises and Pitfalls of Capitation, New Directions for Mental Health Services, Jossey-Bass, San Francisco, No. 43, Fall, 1989, pp. 5-18.

Rose, S.M., et. al., "Responding to Abused Clients: A Role for Social Work in Reforming Mental Health Services," mimeo, 1990.

Terkelsen, K.G., Grosser, R.C., "Estimating Clozapine's Cost to the Nation," Hospital and Community Psychiatry, Vol. 41, No. 3, March, 1990, pp. 277-286.

REFERENCES

American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition, American Psychiatric Association, Washington, D.C., 1980

Anderson, C., Hogarty, G., Reiss, D., "Family Treatment of Adult Schizophrenic Patients," Schizophrenia Bulletin, Vol. 6, No. 3, 1980, pp. 490-505

Anderson, C., McFarlane, W., "Treatment Manual: Psychoeducational Multi-Family Therapy in Schizophrenia," mimeo, 1985

Anderson, C., Reiss, D., Hogarty, G., Schizophrenia and the Family: A Practitioner's Guide to Psychoeducation and Management, Guilford Press, New York, 1986

Andreasen, N., "Negative Symptoms in Schizophrenia," Archives of General Psychiatry, Vol. 39, July, 1982, pp. 784-788

Anthony, W., The Principles of Psychiatric Rehabilitation, University Park Press, Baltimore, 1979

Anthony, W., Cohen, M., Farkas, M., "A Psychiatric Rehabilitation Program: Can I Recognize One If I See One?", Community Mental Health Journal, Vol. 18, 1982, pp. 83-96

Anthony, W., Cohen, M., Cohen, B., "The Philosophy, Treatment Process and Principles of the Psychiatric Rehabilitation Approach," in Bachrach, L., ed., Deinstitutionalization, New Directions for Mental Health Services, Jossey-Bass, San Francisco, No. 17, March, 1983

Anthony, W., Liberman, R., "The Practice of Psychiatric Rehabilitation: Historical, Conceptual and Research Base," Schizophrenia Bulletin, Vol. 12, 1986, pp. 542-559

Bachrach, L., "Overview: Model Programs for Chronic Mental Patients," American Journal of Psychiatry, Vol. 137, No. 9, 1980, pp. 1449-1456

Bachrach, L., "Principles of Planning for Chronic Psychiatric Patients: A Synthesis," in Talbott, J., ed., The Chronic Mental Patient: Five Years Later, Grune and Stratton, New York, 1984

Bachrach, L., Talbott, J., Meyerson, A., "The Chronic Psychiatric Patient as a 'Difficult' Patient: A Conceptual Analysis," in Meyerson, A., ed., Barriers To Treating the Chronic Mentally Ill, New Directions For Mental Health Services, Jossey Bass, San Francisco, No. 33, Spring, 1987

Beard, J., Propst, R., Malamud, T., "The Fountain House Model of Psychosocial Rehabilitation," Psychosocial Rehabilitation Journal, Vol. 5, No. 1, January, 1982, pp. 47-53

Bellak, L., "Introduction: An Idiosyncratic Overview," in Bellak, L., ed., Disorders of the Schizophrenic Syndrome, Basic Books, New York, 1979

Biegel, A., "Community Mental Health Centers: A Look Ahead," Hospital and Community Psychiatry, Vol. 33, No. 9, September, 1982, pp. 741-745

Bleuler, M., The Schizophrenic Disorders: Long-Term Patient And Family Studies(1972), translated by Clemens, S., Yale University Press, New Haven, 1978

Brager, G., Holloway, S., Changing Human Service Organizations: Politics and Practice, Free Press, New York, 1978

Bromberg, E., Starr, R., Carney, J., Donovan, R., "Downstate Intensive Case Management Training Program, Revised", Hunter College School of Social Work, mimeo, 1990

Bromberg, E., Starr, R., Donovan, R., Carney, J., Pernell-Arnold, A., "The New York City Intensive Case Management Training Project: A Brief Report," Psychosocial Rehabilitation Journal, in press, 1991

Brown, G., Monck, E., Carstairs, G., Wing, J., "Influence of Family Life on the Course of Schizophrenic Illness," British Journal of Preventive and Social Medicine, Vol. 16, 1962, pp. 55-68

Brown, G., Birley, J., Wing, J., "Influence of Family Life on the Course of Schizophrenic Disorders: A Replication, " British Journal of Psychiatry, Vol. 121, 1972, pp. 241-258

Bryan, C., "The Uses of Therapy in Case Management," in Kupers, T., ed., Using Psychodynamic Principles in Public Mental Health, New Directions in Mental Health Services, Jossey Bass, San Francisco, No. 46, Summer, 1990

Carpenter, W., Heinrichs, D., Wagman, A., "On the Heterogeneity of Schizophrenia," in Alpert, M., ed., Controversies in Schizophrenia, Guilford Press, New York, 1985

Ciompi, L., "Catamnestic Long-Term Study on the Course of Life and Aging in Schizophrenics," Schizophrenia Bulletin, Vol. 6, No. 4, 1980

Cnaan, R., Blankertz, L., Messinger, K., Gardner, J., "Psychosocial Rehabilitation: Toward a Definition," Psychosocial Rehabilitation Journal, Vol. XI, No. 4, April, 1988, pp. 61-77

Cnaan, R., Blankertz, L., Messinger, K., Gardner, J., "Psychosocial Rehabilitation: Towards a Theoretical Base," Psychosocial Rehabilitation Journal, Vol. 13, No. 1, July, 1989, pp. 33-55

Cole, S., Cole, D., "Professionals Who Work with Families of the Chronic Mentally Ill: Current Status and Suggestions for Clinical Training," in Hatfield, A., Lefley, H., eds., Families of the Mentally Ill: Coping and Adaptation, Guilford Press, New York, 1987

Dincin, J., "Psychiatric Rehabilitation, Schizophrenia Bulletin, No. 13, Summer, 1975, pp. 131-147

Donovan, R., "Intensive Case Management Trainee Profiles," Hunter College School of Social Work, New York, mimeo, 1990

Emery, B., Gopelrud, E., "Services for the Seriously Mentally Ill: A Survey of Community Mental Health Centers," National Council of Community Mental Health Centers, Rockville, Md., February, 1988

Endicott, J., Spitzer, R., "A Diagnostic Interview: The Schedule for Affective Disorders and Schizophrenia," Archives of General Psychiatry, Vol. 35, July, 1978, pp. 837-844

Estroff, S., "Self, Identity and Subjective Experiences of Schizophrenia: In Search of the Subject," Schizophrenia Bulletin, Vol. 15, No. 2, 1989, pp. 189-196

Falloon, I., Boyd, J., McGill, C., "Behavioral Family Therapy for Schizophrenia," in Curran, J., Monti, P., eds., Social Skills Training: A Practical Handbook for Assessment and Treatment, Guilford Press, New York, 1982a

Falloon, I., Boyd, J., McGill, C., Razani, J., Moss, H., Gilderman, A., "Family Management in the Prevention of Exacerbations of Schizophrenia: A Controlled Study," New England Journal of Medicine, Vol. 306, 1982b. pp. 1437-1440

Falloon, I., Liberman, R., "Interactions Between Drug and Psychosocial Therapy in Schizophrenia," Schizophrenia Bulletin, Vol. 9, No. 4, 1983a, pp. 543-554

Falloon, I., Liberman, R., "Behavioral Family Interventions in the Management of Chronic Schizophrenia," in McFarlane, W., ed., Family Therapy in Schizophrenia, Guilford Press, New York, 1983

Falloon, I., Boyd, J., McGill, C., Family Care of Schizophrenia, Guilford Press, New York, 1984

Farkas, M., Anthony, W., eds., Psychiatric Rehabilitation Programs: Putting Theory Into Practice, Johns Hopkins University Press, Baltimore, 1989

Fleiss, J., Statistical Methods for Rates and Proportions, 2nd Edition, Wiley & Sons, New York, 1981, pp. 133-135

Freedberg, S., "Self-Determination: Historical Perspectives and Effects on Current Practice," Social Work, Vol. 35, no. 1, January, 1989, pp. 33-38

Freier, C., Hardwick, B., "CMHC 24-Hour Inpatient Unit Utilization Trends: 1968-1986; and Patients' Characteristics Admitted in 1986(sic)", Program Analysis and Evaluation Section, Maimonides Department of Psychiatry, August, 1987, mimeo

Freier, C., Hardwick, B., "Study of Recidivism in Maimonides Department of Psychiatry CMHC Hospitalization Unit for 1981 to 1986," Program Analysis and Evaluation Section, Maimonides Department of Psychiatry, February, 1988, mimeo

Fuller, J., Fuller, C., "The Psychoeducational Model of Family Treatment: Applications for Graduate Practice Courses," presented at Annual Meeting, Council on Social Work Education, March, 1987

Germain, C., ed., Social Work Practice: People and Environments, Columbia University Press, New York, 1979

Goering, P., Stylianos, S., "Exploring the Helping Relationship Between the Schizophrenic Client and Rehabilitation Therapist," American Journal of Orthopsychiatry, Vol. 58, No. 2, April, 1988, pp. 271-280

Goldman, H., "Mental Illness and Family Burden: A Public Health Perspective," Hospital and Community Psychiatry, Vol. 33, July, 1982, pp. 557-560

Goldstein, E., "Mothers of Psychiatric Patients Revisited," in Germain, C., ed., Social Work Practice: People and Environments, Columbia University Press, 1979

Goldstein, M., Kopeikin, H., "Short- and Long-Term Effects of Combining Drug and Family Therapy," in Goldstein, M., ed., New Developments in Interventions with Families of Schizophrenics, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 12, December, 1981

Goldstein, M., Doane, J., "Interventions With Families and the Course of Schizophrenia," in Alpert, M., ed., Controversies in Schizophrenia, Guilford Press, New York, 1985

Gordon, W., "Social Work Revolution or Evolution," Social Work, Vol. 28, May-June, 1983, pp. 181-185

Harding, C., Strauss, J., "The Course of Schizophrenia: An Evolving Concept," in Alpert, M., ed., Controversies in Schizophrenia, Guilford Press, New York, 1985

Hardwick, B., Freier, C., "Characteristics of Adult Outpatients and Their Mental Health Treatment Histories (as of October, 1987)," Program Analysis and Evaluation Section, Maimonides Department of Psychiatry, 1988, mimeo

Hare-Musten, R., "A Feminist Approach to Family Therapy," Family Process, Vol. 17, June, 1978, pp. 181-194

Harris, M., Bachrach, L., "A Treatment Planning Grid for Clinical Case Managers," in Harris, M., Bachrach, L., eds., Clinical Case Management, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 40, Winter, 1988

Harris, M., Bergman, H., "Clinical Case Management for the Chronically Mentally Ill: A Conceptual Analysis," In Harris, M., Bachrach, L., eds., Clinical Case Management, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 40, Winter, 1988

Hatfield, A., "Psychological Costs of Schizophrenia to the Family," Social Work, September, 1978, pp. 355-3591978

Hatfield, A., ed., Families of the Mentally Ill: Meeting the Challenges, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 34, Summer, 1987

Hatfield, A., Lefley, H., eds., Families of the Mentally Ill: Coping and Adaptation, Guilford Press, New York, 1987

Hersen, M., Luber, R., "Use of Group Therapy in a Partial Hospitalization Service: The Remediation of Basic Skill Deficits," in Bellack, A., Hersen, M., eds., Behavior Modification: An Introductory Textbook, Oxford University Press, New York, 1978

Hogarty, G., "Expressed Emotion and Schizophrenic Relapse: Implications From the Pittsburgh Study," in Alpert, M., ed., Controversies in Schizophrenia, Guilford Press, New York, 1985

Hogarty G., Goldberg, S., and Collaborative Study Group, "Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: One-Year Relapse Rates," Archives of General Psychiatry, Vol. 28, January, 1973, pp. 54-63

Hogarty, G., Goldberg, S., Schooler, N., Ulrich, R. and Collaborative Study Group, "Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: Two-Year Relapse Rates," Archives of General Psychiatry, Vol. 31, November, 1974a, pp. 603-608

Hogarty, G., Goldberg, S., Schooler, N. and Collaborative Study Group, "Drug and Sociotherapy in the Aftercare of Schizophrenic Patients: III. Adjustment of Non-Relapsed Patients," Archives of General Psychiatry, Vol. 31, November, 1974b, pp. 609-618

Hogarty, G., Schooler, N., Ulrich, R., Mussare, F., Ferro, P., Herron, E., "Fluphenazine and Social Therapy in the Aftercare of Schizophrenic Patients," Archives of General Psychiatry, Vol. 36, November, 1979, pp. 1283-1294

Hogarty, G., Anderson, C., Reiss, D., Kornblith, S., Greenwald, D., Javna, C., Madonia, M., "Family Psychoeducation, Social Skills Training, and Maintenance Chemotherapy in the Aftercare Treatment of Schizophrenia: I. One-year Effects of a Controlled Study on Relapse and Expressed Emotion," Archives of General Psychiatry, Vol. 43, July, 1986, pp. 633-642

Hogarty, G., McEvoy, J., Munetz, M., DiBarry, A., Bartone, P., Cather, R., Cooley, S., Ulrich, R., Carter, M., Madonia, M., "Dose of Fluphenazine, Familial Expressed Emotion, and Outcome in Schizophrenia," Archives of General Psychiatry, Vol. 45, September, 1988, pp. 797-805

Hollingshead, A., "Four Factor Index of Social Status," Yale University, 1976

International Association of Psychosocial Rehabilitation Services, "Psychosocial Rehabilitation: Definition, Principles and Description," June, 1985, mimeo

Jencks, S., Goldman, H., McGuire, T., "Challenges in Bringing Exempt Psychiatric Services Under a Prospective Payment System," Hospital and Community Psychiatry, Vol. 36, July, 1985, pp. 764-769

Johnson, P., Rubin, A., "Case Management in Mental Health: A Social Work Domain?", *Social Work,* Vol. 28, No. 1, January-February, 1983, pp. 49-56

Kane, J., "Low Dose Medication Strategies in the Maintenance Treatment of Schizophrenia," *Schizophrenia Bulletin,* Vol. 9, No. 4, 1983, pp. 528-532

Kanter, J., "Case Management of the Young Adult Chronic Patient," in Kanter, J., ed., *Clinical Issues in Treating the Chronic Mentally Ill,* New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 27, September, 1985

Kanter, J., "Clinical Issues in the Case Management Relationship," in Harris, M., Bachrach, L., eds., *Clinical Case Management,* New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 40, Winter, 1988

Kanter, J., "Clinical Case Management: Definition, Principles, Components," *Hospital and Community Psychiatry,* Vol. 40, No. 4, April, 1989, pp. 361-368

Kanter, J., "Community-based Management of Psychotic Clients: The Contributions of D.W. and Clare Winnicott," *Clinical Social Work Journal,* Vol. 18, No. 1, Spring, 1990, pp. 23-41

Kreisman, D., Simmens, S., Joy, V., "Rejecting the Patient: Preliminary Validation of a Self-Report Scale," *Schizophrenia Bulletin,* Vol. 5, No. 2, 1979, pp. 220-222

Kreisman, D., Blumenthal, R., "Social Adjustment Scale: Family Version (SAS III)," New York State Psychiatric Institute, 1984

Lamb, H., "The New Asylums in the Community," *Archives of General Psychiatry,* Vol. 36, February, 1979, pp. 129-134

Lamb, H., "Therapist-Case Managers: More Than Brokers of Service," *Hospital and Community Psychiatry,* Vol. 31, No.11, 1980, pp. 762-764

Lamb, H., "Individual Psychotherapy," in Talbott, J., ed., *The Chronic Mentally Ill,* Human Sciences Press, New York, 1981

Leff, J., Vaughn, C., "The Role of Maintenance Therapy and Relatives' Expressed Emotion in Relapse of Schizophrenia: A Two-Year Follow-up," *British Journal of Psychiatry,* Vol. 139, pp. 102-104, 1981

Leff, J., Kuipers, L., Berkowitz, R., Eberlein-Vries, R., Sturgeon, D., "A Controlled Trial of Social Intervention in the Families of Schizophrenic Patients," *British Journal of Psychiatry,* Vol. 141, 1982, pp. 121-134

Leff, J., Vaughn, C., Expressed Emotion in Families: Its Significance for Mental Illness, Guilford Press, New York, 1985

Lipkowitz, M., Carney, J., "Structured Clinical Interview for DSM-III, Psychotic Disorders Version (SCID-P.D.V., 3/1/85) - Modified for Maimonides Family Support Demonstration Project," 1986

Manuzza, S., Woerner, M., Kane, J., "Brief Psychiatric Rating Scale - Anchored," New York Psychiatric Institute, 1983

McFarlane, W., "Multiple Family Therapy in Schizophrenia," in McFarlane, W., ed., Family Therapy in Schizophrenia, Guilford Press, New York, 1983

McFarlane, W., "The Family Support Demonstration Project," New York State Office of Mental Health, 1984

McFarlane, W., Lukens, E., Toran, J., Dunne, E., "Executive Summary: Outcome Results from the Family Psychoeducation in Schizophrenia Project," Biosocial Treatment Research Division, New York State Psychiatric Institute, 1991

McGoldrick, M., Anderson, C., Walsh, F., eds., Women in Families: A Framework for Family Therapy, W.W. Norton, New York, 1989

Mendel, W., Treating Schizophrenia, Jossey Bass, San Francisco, 1989.

Meyer, C., "What Directions for Direct Practice?", Social Work, Vol. 24, No. 4, July, 1979, pp. 257-273

Miklowitz, D., Goldstein, M., Falloon, I., "Premorbid and Symptomatic Characteristics of Schizophrenics from Families of High and Low Levels of Expressed Emotion," Journal of Abnormal Psychology, Vol. 92, 1983, pp. 359-367

Miklowitz, D., Goldstein, M., Doane, J., Nuechterlein, K., Strachan, A., Snyder, K., Magana-Amato, A., "Is Expressed Emotion an Index of a Transactional Process? I. Parents' Affective Style," Family Process, Vol. 28, No. 2, June, 1989, pp. 153-168

Minkoff, K., "A Map of the Chronic Mental Patient," In Talbott, J., ed., The Chronic Mental Patient, American Psychiatric Association, 1978

Minkoff, K., "Resistance of Mental Health Professionals to Working With the Chronic Mentally Ill," in Meyerson, A., ed., Barriers to Treating the Chronic Mentally Ill, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 33, Spring, 1987

Mosher, L., Keith, S., "Psychosocial Treatment: Individual, Group, Family and Community Support Approaches," Schizophrenia Bulletin, Vol. 6, No.1, 1980, pp. 10-41

National Association of Social Workers, "NASW Code of Ethics, 1980," 1983-84 Supplement to the Encyclopedia of Social Work, 17th Edition, NASW, Silver Springs, Md., 1983

National Association of Social Workers, "NASW Standards and Guidelines for Social Work Case Management for the Functionally Impaired," NASW, Silver Springs, Md., 1984

New York State Office of Mental Health, "Intensive Case Management in New York State, 1988, mimeo

New York State Office of Mental Health, "Statewide Comprehensive Plan for Mental Health Services: 1990-1995," 1989

Okin, R., "How CMHC"s Are Coping," Hospital and Community Psychiatry, Vol. 35, November, 1984, pp. 1118-1125

Overall, J., Gorham, D., "The Brief Psychiatric Rating Scale," Psychological Reports, Vol. 10, 1962, pp. 799-812

Parker, G., Johnston, P., Hayward, L., "Parental `Expressed Emotion' as a Predictor of Schizophrenic Relapse," Archives of General Psychiatry, Vol. 45, September, 1988, pp. 808-813

Perlman, H., Social Casework: A Problem-Solving Process, University of Chicago Press, Chicago, 1957

Perlman, H., Relationship, University of Chicago Press, Chicago, 1979

Pepper, B., Ryglewicz, H., Kirshner, M., "The Uninstitutionalized Generation: A New Breed of Psychiatric Patient," in Pepper, B., Ryglewicz, H., eds., The Young Adult Chronic Patient, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 14, June, 1982

Pfeiffer, K., Olsen, J., Basic Statistics for the Behavioral Sciences, Holt, Rinehart and Winston, New York, 1985, pp. 187-215

Rapp, C., Chamberlin, R., "Case Management Services for the Chronically Mentally Ill," Social Work, Vol. 30, No. 5, September-October, 1985, pp. 417-422

Register-Joyner, F., "Case Management Demonstration Project, January-December, 1986: Final Report," Philadelphia Office of Mental Health and Mental Retardation, 1987, mimeo

Robinson, G., Bergman, G., "Choices in Case Management: A Review of Current Knowledge and Practice for Mental Health Programs," Policy Resources, Inc., Washington, D.C., March, 1989

Rose, S., "Intensive Case Management: The Suffolk Model Administrative Organization," SUNY-Stony Brook, July, 1988

Rubin, A., Community Mental Health in the Social Work Curriculum, Council on Social Work Education, New York, 1979

Schooler, N., "Treatment of Schizophrenia: Maintenance Strategies and Pharmacological Tactics," in Alpert, M., ed., Controversies in Schizophrenia, Guilford Press, New York, 1985

Spaniol, L., Jung, H., Zipple, A., Fitzgerald, S., "Families as a Resource in the Rehabilitation of the Severely Psychiatrically Disabled," in Hatfield, A., Lefley, H., eds., Families of the Mentally Ill: Coping and Adaptation, Guilford Press, New York, 1987

Spitzer, R., Williams, J., "Structured Clinical Interview for DSM-III - Psychotic Disorders Version (S.C.I.D.-P.D.V., 3/1/85) - Modified for Family Support Demonstration Project," Biometrics Research Department, New York State Psychiatric Institute, 1985

Starr, P., The Social Transformation of American Medicine, Basic Books, New York, 1982

Stein, L., Test., M., eds., The Training in Community Living Model: A Decade of Experience, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 26, June, 1985

Strachan, A., Feingold, D., Goldstein, M., Miklowitz, D., Nuechterlein, K., "Is Expressed Emotion an Index of a Transactional Process? II. Patients' Coping Style," Family Process, Vol. 28, No. 2, June, 1989, pp. 169-182

Strauss, J., Carpenter, W., "The Prognosis of Schizophrenia," In Bellak, L., ed., Disorders of the Schizophrenic Syndrome, Basic Books, New York, 1979

Strauss, J., "Subjective Experiences of Schizophrenia: Toward a New Dynamic Psychiatry," Schizophrenia Bulletin, Vol. 15, No. 2, 1989, pp. 179-187

Talbott, J., ed., The Chronic Mentally Ill : Treatment, Programs, Systems, Human Services Press, New York, 1981

Talbott, J., ed., The Chronic Mental Patient: Five Years Later, Grune & Stratton, New York, 1984

Talbott, J., ed., The Perspective of John Talbott, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 37, Spring, 1988

Test, M., Wallisch, L., Allness, D., Ripp, K., "Substance Abuse in Young Adults with Schizophrenic Disorders," Schizophrenia Bulletin, Vol. 15, No. 3, 1989, pp. 465-476

Vaughn, C., Leff, J., "The Measurement of Expressed Emotion in the Families of Psychiatric Patients," British Journal of Social and Clinical Psychology, Vol. 129, 1976, pp. 125-137

Walters, M., "Single-Parent, Female-Headed Households," in Walters, M., Carter, B., Papp, P., Silverstein, O., The Invisible Web, Guilford Press, New York, 1988

Weiss, K., "Advantages of Abandoning Symptom-Based Diagnostic Systems of Research in Schizophrenia," American Journal of Orthopsychiatry, Vol. 59, No. 3, July, 1989, pp. 324-330

Wintersteen, R., "Rehabilitating the Chronically Mentally Ill: Social Work's Claim to Leadership," Social Work, Vol. 31, No. 5, September-October, 1986, pp. 332-338

Witheridge, T., Dincin, J., "The Bridge: An Assertive Outreach Program in an Urban Setting," in Stein, L. Test, M., eds., The Training in Community Living Model: A Decade of Experience, New Directions for Mental Health Services, Jossey Bass, San Francisco, No. 26, June, 1985

Zubin, J., Spring, B., "Vulnerability: A New View of Schizophrenia," Journal of Abnormal Psychology, Vol. 86, 1977, pp. 103-126