AN ASSESSMENT OF THE COMMUNITY ADJUSTMENT OF PARTICIPANTS IN THE MOADON SHALOM--A REHABILITATION CLUB FOR EX-MENTAL PATIENTS IN JERUSALEM, ISRAEL

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ABSTRACT

AN ASSESSMENT OF THE COMMUNITY ADJUSTMENT OF PARTICIPANTS IN THE MOADON SHALOM--A REHABILITATION CLUB FOR EX-MENTAL PATIENTS IN JERUSALEM, ISRAEL

by

Jay Twig Lazier

The purpose of this study was to assess the community adjustment of participants in the Moadon Shalom, a rehabilitation club for ex-mental patients in Jerusalem, Israel. The criteria for community adjustment in this thesis were: (a) maintenance of the ex-mental patient in the community (community tenure) and (b) adequate adjustment in essential living tasks (living arrangements, household duties, work, self-care, social activities and recreational activities). Community tenure was defined as the percentage of hospitalization time saved since being referred to the Moadon, and was measured by comparing time spent in the community after referral to the Moadon with a comparable baseline period before referral. Community adjustment was defined as the quantity and quality of social interaction in the above-mentioned living tasks and was measured by the Social Interaction Questionnaire developed by Spivak ('67).

The Social Interaction Questionnaire was constructed from a mapping sentence based on facet theory and contains a measure of present functioning, functioning at one's best period since the age of twenty, and a comparison between these two periods. Social interaction scores were thus based on the discrepancy between present functioning and functioning during one's best period since the age of twenty.

A first step in the execution of this study was to define the population being evaluated (the 150 active members of the Moadon Shalom). Since population parameters were available from a census study of the Jerusalem ex-mental patient population[1], it was possible to define the Moadon population by comparing it with the census population (1,531 people who were released at least once from a mental institution between 1963 and 1968) on the demographic variables being considered. Results of this comparison indicated that the Moadon was not working with a cross-section of the ex-mental patient population, but rather with

[1]This study is related to a larger study of the Jerusalem ex-mental patient population under the direction of Dr. Mark Spivak, Israel Institute of Applied Social Research, Jerusalem, Israel.

a chronic population characterized by an inability to adjust to life in the community and by poor rehabilitation potential.

The results relating to community tenure demonstrated that the great majority of Moadon participants saved a significant amount of hospitalization time after participating in the Moadon. Further analysis indicated that those who saved hospitalization time could not be differentiated from those who lost hospitalization time in terms of those variables related to chronicity. Support is thus provided for the hypothesis that increased community tenure was related to participation in the Moadon, rather than to greater rehabilitation potential on the part of those who saved hospitalization time. Although those saving and losing hospitalization time could not be differentiated in terms of attendance and contact (outreach), it was found that gainers with high attendance and high contact ratings were more chronic than gainers with low attendance and low contact ratings. These results led to the conclusion that the Moadon was attaining its goal of successfully working with those clients at the negative end of the continuum in terms of chronicity and rehabilitation potential.

The results relating to the other aspects of community adjustment indicated that: (a) vocational functioning on the part of the great majority of Moadon members improved after participation in the Moadon; (b) a relationship existed between attendance and quantity of social interaction, with high attenders being more actively involved in the community; (c) a relationship existed between attendance and quality of social interaction, with high attenders expressing more positive feelings about the quality of their life in the community. It was concluded that participation in the Moadon was related both to increased community tenure and improved community adjustment.

The study was also seen as making a contribution to the field of psychiatric rehabilitation because of its consideration of the following issues: (a) determining the applicability of a treatment program for a particular segment of the ex-mental patient population, (b) using a period of time before referral as a baseline from which to measure community tenure, and (c) assessing the quality of life as well as maintenance in the community.

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CHAPTER I

INTRODUCTION

This thesis is concerned with assessing the community adjustment of participants in the Moadon Shalom, a rehabilitation club for ex-mental patients in Jerusalem, Israel. Before pursuing this issue, an adequate definition of psychiatric rehabilitation must be developed; for there is still lacking a clear understanding as to what the process of pschiatric rehabilitation actually represents (Siedenfeld, '57; Schwartz and Schwartz, '64). A problem with a number of previously developed definitions has been their lack of specificity. Greenblatt ('59), for example, conceptualizes psychiatric rehabilitation as a life-space containing the following aspects: (a) psychological, (b) vocational, (c) social-recreational, (d) family, (e) community and (f) educational.

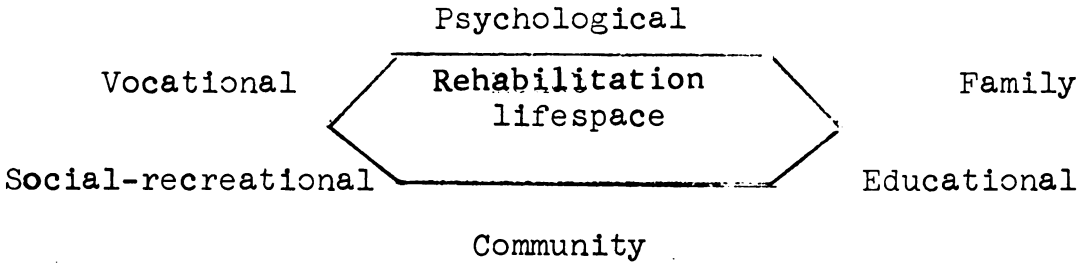

Figure 1.1 Lifespace of psychiatric rehabilitation

Although useful in pointing out areas where intervention might be desirable, this conceptualization is too vague to be used as a basis for an evaluation study, since specific criteria for success are not defined. Other definitions that can be criticized for the same reasons are as follows: (a) "assisting the client to realize to the fullest possible extent those potentialities that are his" (Siedenfeld, '57). (b) "to assist the patient in transition from a protective hospital environment to independent community living by changing the social identity of the individual from that of a patient to a functioning citizen." (Tanaka, '65). (c) "assisting the patient to achieve an optimal social role (in the family, on the job and in the community generally), within his capacities and potentialities" (Williams, '53). (d) "restoration of the handicapped to the fullest physical, mental, social, vocational and economic usefulness of which they are capable. (Whitehouse National Council on Rehabilitation, '51). (e) "reintegration of the individual into the community on the most efficient and useful level of adjustment possible" (Carmichael, '59). (f) "the restoration to useful activity of individuals who have been wounded so as to suffer from physical or emotional disability, such restoration including treatment of the disability and training to fit the individual for occupation in industry" (Simon, '59).

When concerned with measuring the effects of a rehabilitation program, it is not enough to set such

nebulous goals, for there is a need for tangible and incontrovertible facts that will tell us when we have reached, or at least reasonably approximated, the aims of such a program (Siedenfeld, '57). In short, specific criteria must be established for evaluating the rehabilitation process. Given different theoretical approaches, these criteria may differ, and in this paper they have been developed from the approach to psychiatric rehabilitation discussed below.

Traditionally, treatment of the mentally ill has been based entirely on the classical medical model that emphasized disease, diagnosis, and therapeutic procedure (Wessen, '65). In treatment settings based on the medical model, the patient was considered to be a unique individual, separated from the social world, and the rehabilitating agent was concerned with assessing his traits and determining an appropriate treatment (Bloom, '65). Such an approach may be effective in treating a disease but not in reversing the course of disability (Nagi, '65). Disability can be defined as a pattern of behavior that evolves in a situation of long term or continued impairments that are associated with functional limitations. An illness or sickness on the other hand, while indicating the presence of pathology, may not involve limitations in the performance of normal role and daily activities (Nagi, '65). The major goal in treating an illness is to eliminate the underlying pathology. However, when dealing with a disability, the objective is to reverse the course of the disability and to restore one

to his optimal level of functioning (the general goal of rehabilitation given this conceptualization of mental illness).

The definition developed by the professional services branch of NIMH is a step toward operationalizing this general approach to psychiatric rehabilitation:

> First, whatever the etiology of mental disorders, they manifest themselves prominently by psychological decrements which may affect the social behavior and interactions of the individual in adverse ways and have adverse socio-psychological effects on those around him. Hence, psychiatric rehabilitation should be concerned especially with optimal restoration of social roles and social functioning within the social systems significant for the patient such as family; or various associations and participation in the general life of the community.

The focus of this definition is on the restoration of social roles and functioning in areas relevant to the individual and is thus consistent with Nagi's conceptualization of reversing the course of disability. What is lacking in the NIMH definition are the specific areas in which social functioning takes place, for unless they are known, it is difficult to determine the extent to which rehabilitation programs or techniques have been successful. By constructing a mapping sentence, and thus bringing into focus the various components of social interaction, Spivak ('69) was able to delineate the major areas in which social functioning takes place and listed them under the general heading of "living tasks." They are as follows:

1. living arrangements

2. household duties

3. work

4. self care: (a) personal appearance and care, (b) taking of medication and (c) therapeutic visits

5. social activities

6. recreational activities

In developing meaningful rehabilitation goals from the above framework, a primary objective would be maintenance of the ex-patient in the community. On a more qualitative level, rehabilitation goals could be conceptualized as adequate adjustment in the above-mentioned areas of social functioning, for as was just mentioned, the focus of the NIMH definition is on the quality of social functioning in all significant aspects of one's life.

To briefly review, Nagi's conceptualization of reversing the course of disability was used as a general framework for the development of rehabilitation goals. This framework was elaborated upon by the NIMH definition which focused upon the restoration of social roles and functioning in significant social systems, and became more clearly defined through Spivak's development of the areas in which social functioning takes place. Specifically, the rehabilitation goals to be used in this thesis are maintenance of the ex-mental patient in the community and adequate adjustment in the above-mentioned living tasks. This obviously is not the only operational definition of psychiatric rehabilitation that could be developed, but it does provide

concrete goals and therefore serves as a basis for the evaluation of rehabilitation programs.

Given this conception of rehabilitation goals, past and existing programs can be evaluated as to how effective they have been in rehabilitating the mentally ill. The mental hospital has until recently been the major instrument of rehabilitation for the mentally ill, but despite government funding, innovative treatment programs and increased theoretical sophistication, few inroads have been made in the rehabilitation of the mentally ill in hospital settings (Vitale and Steinbach, '65). Evidence of this fact can be seen in studies of the mentally ill which indicate that while time spent in mental hospitals is decreasing, readmission rates are on the rise (Ratliff, '64; Brown, Parkes and Wing, '59; Miller and Dawson, '68).

An explanation for this phenomenon can be attributed to a conceptual framework that does not take into account all of the rehabilitation needs of the mental patient. By examining the philosophy and structure of hospital based programs, such deficiencies can be observed. In general, hospital based treatment programs have emphasized the medical model of mental illness described earlier. High rehospitalization rates, however, demonstrate the failure of many hospital programs to meet even the minimal requirement of successful rehabilitation developed in this paper--maintenance of the ex-patient in the community. One reason

for this failure can be attributed to the medical model's lack of emphasis on the functional limitations that accompany mental illness (Pasamanick et al, '67; Vitale and Steinback, '65). Thus, although meeting the criteria of a disability, mental illness has not been treated as such by hospital programs based on the medical model.

The social structure of the mental hospital also contributed to its lack of success in rehabilitating the mentally ill. According to Hunt ('58), "much of the unnecessary crippling of the mentally ill must be laid at the door of the state mental hospital both from the standpoint of how it functions internally and how it is used by the society it serves." Ullman ('67) concurs with Hunt and states that "during the last 100 years, with a very few exceptions the psychiatric hospital is more likely to have been a manufactor of chronic insanity than to have been a milieu likely to improve chances of acceptable extra hospital adjustment." The specific aspects of the hospital culture that made it incompatible with the goals of rehabilitation have been succinctly presented by Goffman ('61). He sees the mental hospital as having the characteristics of a special class of social organization that can be called a "total institution." In a "total institution" all aspects of life are conducted in the same place under the same authority in the immediate company of many others and according to a fixed and unusually tight schedule. The sharp cleavage that exists between life

inside and outside the institution leads to a radical shift in a person's moral career and self-image, for the patient begins to absorb much of the inpatient culture that surrounds him and learns to derive satisfaction from it. Specifically the role of the patient in the mental hospital differs from that of an ordinary person in several respects:
(a) Patient is separated from ordinary relationships.
(b) Needs of patient are provided for by the institution.
(c) Loss of personal responsibility develops because the total institution is incompatible with family and community living.

In summary, becoming a mental patient leads to a radical shift in social position in a generally degrading and handicapping direction and tends to increase rather than alleviate the disability. (Felix, '58). Thus, it can be seen that the hospital social structure and the model under which it was operated are incompatible with the rehabilitation goals stated in this paper.

The apparent incompatibility between hospital structure and rehabilitation goals did not go unnoticed by mental health professionals; and just as many hospitals evolved from custodial care institutions to ones that provided individualized treatment (Wessen, '65; Mechanik and Nathan, '65), other more progressive institutions developed programs that took into account the functional limitations of the patient as well, thus moving into the framework of a rehabilitation model. These experiments and reforms in

the mental hospital have been described by terms such as "milieu therapy" or "therapeutic community." Some of the characteristics of such programs are as follows: (a) Status distinction among staff and patients is minimized. (b) Unit is designed so that interest in the "real world" outside the hospital is maximized while still protecting the patients from morbid pressures of their social environments. (c) Special roles are designed for patients that allow them to take on increasingly meaningful responsibilities. (d) While retaining the therapeutic ideology of medicine, the traditional trappings and symbols of the hospital care model are systematically minimized.

Although helping to improve vastly psychiatric services within mental institutions, this conceptual model of rehabilitation was also found to be lacking, especially for the chronic patient. Sanders, Smith and Weinman ('67) in a comprehensive evaluation of a "therapeutic community" within a hospital setting reached the following conclusion:

> The findings of the present study make it evident that although hospital based socio-environmental programs effect a remission of symptoms and are valuable in preparing chronic patients for community life, these programs are not in themselves sufficient to insure the patient an adequate community adjustment. Despite successful efforts of hospital based treatment, the chronic patients' residual limitations, inflexibility and adaptability can only be surmounted by continued guidance and assistance in adjusting to actual community life situations...A community based rehabilitation service is needed both to help patients with every day living problems and to assist them directly in attaining greater individuation and self-sufficiency in the community.

Given the above data, it becomes apparent that reversing the course of a disability within a hospital setting is a difficult task and that the focus of rehabilitation services must shift to the community.

The question can now be posed as to whether the services provided by community based programs are compatible with the rehabilitation goals stated earlier. This is an extremely difficult question to answer, for out-patient services are characterized by a diversified system of care with each treatment center establishing its own criteria for selection, treatment, and success (Schwartz and Schwartz, '66).

To simplify matters, this thesis will focus on one particular type of post-hospital program--the ex-mental patient club. Although the numerous clubs that have been established differ from one another in some respects, they do have a common philosophy and structure. Landy and Singer ('61) state a number of basic elements in the structure of clubs for ex-mental patients: (a) Clubs are characterized by persisting but loosely formed relationships built upon interdependent needs of members. (b) The ethic of equality of rights and privileges with regard to anonymity and commonness of similar experiences leads to a leveling of social status in the organization. (c) The club is a place where the mental patient is accepted without question as to medical antecedents, dependency, etc. (d) The club is a

place where the patient can talk about his hospital experience and symptoms. (e) The club is a place where the ex-patient can find and give support to others. (f) Club members share a sense of responsibility for one another.

In summary, "the club for ex-mental patients serves as a bridge between the hospital and the community--a way of facilitating the patients' re-entry in the community in the areas of family life, work, accomodation, social and recreational activities" (Spivak, '69).

Theoretically speaking, the philosophy of ex-mental patient clubs appears to be consistent with the rehabilitation goals stated earlier. However, there are still a number of mental health professionals who see dangers in this and other types of post-hospital programs. Specifically:

1. Aftercare is thought to foster over-dependency on the part of the ex-patient (Schwartz et al., '64).

2. Aftercare leads to psychiatric hypochondriasis--overconcern with emotional reactions, family adjustment, etc. (Schwartz et al., '64).

3. Aftercare programs may reinforce the stigma of being in a mental hospital and encourage a person to think of himself as being sick (Schwartz et al., '64).

4. Decline in training and use of inadequately trained subprofessionals to work in programs (Wallerstein, '68).

5. Community services can be as dangerous a source

of institutionalism as the hospital itself (Wing, '63).

6. Mass disillusionment if current enthusiasm oversells itself and fails to reach high expectations (Wallerstein, '68).

7. "Inadequate program evaluation in projects geared more to the demonstration grant mold, with the unfortunate discarding of the wide open opportunity (and the concomitant important obligation) to test and evaluate innovations, so that out of the crucible of experience more productive methods may be delineated and better theory may be evolved" (Wallerstein, '68).

Although all of the above criticisms focus on the limitations of post-hospital treatment programs, they approach the problem from different perspectives and thus must be examined independently. Overdependence, psychiatric hypochondriasis, stigmatization and institutionalism can all be considered possible dangers of post-hospital treatment programs, but they are not necessarily inherent in these programs. Schwartz and Schwartz ('64), in response to the problems that they and others have raised, state that the organizational structure of the post-hospital program is the key to the prevention of some of these dangers. In particular, they point to the flexibility of organizational response (built in mechanisms to respond to changing needs) and the focusing on patients' needs (continual scrutiny and evaluation of program to determine whether individualized needs are being met) as means of

preventing overdependency, institutionalism, etc. A lack of sensitivity on the part of administrators and an inflexible organizational structure might thus lead to the validation of the above-mentioned criticisms, but as was pointed out, although representing potential dangers, they are not inherent characteristics of post-hospital treatment programs.

The danger of inadequately trained subprofessionals must be considered in the context in which it was written. Wallerstein's article was concerned with the challenge of community mental health to psychoanalysis, and did not objectively assess the role played by subprofessionals. Recent studies (Magoon and Golann, '66; Carkhuff and Truax, '65) have shown them to be playing important and effective roles in community mental health, as well as other related programs, thus putting into question the validity of Wallerstein's claim.

As far as disillusionment is concerned, this is a danger of any innovation that is enthusiastically accepted. At this point in time, it is already quite apparent that the community mental health movement is not a panacea to the mental health problems of society; but rather than experiencing mass disillusionment, mental health professionals as well as community leaders appear to be confronting and not avoiding problems that have arisen.

Finally, the problem of inadequate program evaluation represents more of a need than a danger, and can be

resolved by an improvement in the quality of evaluation studies of mental health programs. Hopefully, the present study will be a step in this direction.

In summary, what can be derived from the above discussion is that despite the theoretical consistency of many mental health programs with the rehabilitation goals developed in this paper, there are still many factors that can interfere with the implementation of these goals. It is thus imperative that these dangers be taken into account by mental health administrators.

Need

In the previous section, optimal rehabilitation goals were developed and the incompatibility of hospital treatment with those goals was demonstrated. It was also shown that community treatment in the form of ex-mental clubs was consistent with the goals of rehabilitation as defined in this thesis, but there still was doubt among some professionals as to the effectiveness of this and other types of aftercare programs. Initial evaluation studies have shown community based treatment programs to be successful (Weinman et al., '70, Guy et al., '69; Vitale and Steinbach, '65; Sheldon, '64; Sheldon and Jones, '67; Beard et al., '63) thus eliminating some of the above-mentioned doubts; but as Wallerstein points out, there is a great need for more detailed and better controlled studies. Michaux et al. ('69) and Friedman, Von Mering and Hinko ('66)

point this out in the following statements:

1. If the proliferating community mental health services are not to become a muddle in which we lose our sense of therapeutic direction, we must therefore evaluate--and without delay--the comparative effectiveness of the various new treatment modalities and their differential suitability for various types of patients (Michaux et al. '69).

2. Consequently, newer approaches of intramural and extramural program assessment must emphasize follow-up evaluation and deal more with the linked problems of extension of community tenure and reduction of rehospitalization. There is also a need for more comprehensive and controlled studies on the qualitative nature of the former patients' posthospital functioning as an indicator of program accomplishment. (Friedman, Von Mering, and Hinko, '66).

The above points to the major failure of most evaluation studies until now -- the emphasis on readmission rates as a dependent variable without considering quality of life in the community. According to Pasamanick et al. ('67), the fact that a person is saved hospitalization time does not validate the effectiveness of a program, especially when one-third of the males in their study couldn't hold jobs and one-third of the females couldn't perform basic household activities. Therefore, although home patients may be better off than hospitalized patients, this may not be sufficient success.

Vitale and Steinbach ('65) also point to the plight of the ex-mental patient in the community. In general, they found them "grossly dependent and maintaining marginal, non-productive social adjustment as shown by the median patient

who lives alone, does not work, but still manages to stay out of the hospital."

The above arguments point to the inadequacy of readmission rates as a sole dependent variable in evaluation studies of community based rehabilitation programs. Although the prevention of rehospitalization is a goal worth striving for, its value must be questioned unless rehabilitation programs can also be shown to be effective in improving one's level of functioning within his community.

In summary, a need exists for evaluation studies that will examine both of these variables, and in particular the specific rehabilitation goals stated earlier in the paper.

Purpose

The purpose of this paper is to assess the community adjustment of participants in the Moadon Shalom in terms of the rehabilitation goals developed in this paper. The instruments of evaluation in this study will be a census study of the Jerusalem mental patient population and a questionnaire based on facet theory (Gattman, '58 and '71; Jordan, '71), the focus of which is on social interaction in major living tasks (basis of optimal rehabilitation goals0. Before such an evaluation can be attempted, the major characteristics of the population to be evaluated must be known. A preliminary objective of this study will thus be to compare the Moadon population with the general population of mental patients in the

Jerusalem area with regard to the following characteristics: (a) sex, (b) country of birth, (c) length between admissions, (d) number of admissions, (e) diagnosis, (f) age at first admission, (g) total time in hospitals, (h) length of admissions. Once this information has been obtained, the evaluation of the program can begin.

As stated earlier, a primary measure of community adjustment is time spent in the community. A major goal would thus be to determine whether time in the community increases as a result of participation in Moadon Shalom. This variable will be measured by comparing Moadon members to themselves, or in other words, determining whether they are staying in the community longer after having participated in the Moadon program than they did before they entered the program.

At this point, the relationship between the following aspects of the Moadon program and community tenure can be determined: (a) attendance (participation in specific Moadon activities), (b) work, (c) contact ("reaching out" to new clients).

If it can be ascertained that increased community tenure is associated with participation in the Moadon, the next logical step would be to compare the clients on the qualitative variables mentioned earlier. The major hypothesis of this comparison would be that the wider a person's social interaction network, the less likely he will return

to the hospital after release. In other words, to the extent to which a person is functioning adequately on the living tasks mentioned earlier, the less likely are his chances of being rehospitalized.

Two specific questions emanate from this hypothesis:

1. In general, are those clients staying in the community longer high social functioners as well? This question focuses on an issue raised earlier -- are community based treatment programs only successful in maintaining ex-patients in the community or are they also successful in improving the quality of life in the community? The possibility also exists that even in cases where readmission rates are not altered, ex-patient clubs might still be effective in making their community tenure more meaningful.

2. How are the above-mentioned aspects of the Moadon program (attendance and contact) related to adjustment in the living tasks mentioned in the questionnaire?

In general, participation in the Moadon should have most effect in the areas of self-care, social activities, recreational activities, work and household duties, whereas the impact of the Moadon on living arrangements will be less unless there was direct intervention with the family.

In summary, this analysis should present a comprehensive picture of the relationship between participation in the Moadon and success on the above-mentioned variables. What remains to be resolved are the specific criteria of

success, given the rehabilitation goals mentioned earlier. If, for example, we are talking about a population of chronic schizophrenics from low socio-economic backgrounds, our criteria will differ greatly than if concerned with a population of non-clients who have higher socio-economic status.

In general, the Moadon has had a policy of accepting chronic patients (hospitalized frequently and for long periods of time) and who are considered poor rehabilitation risks by most public agencies. Results of the census study will thus verify or disconfirm the extent to which the Moadon has effectively carried out this policy. If confirmed, this fact will have to be reflected in the statistical analysis since when working with clients who have demonstrated little rehabilitation potential, even minimal gains must be considered significant. The specifics of this matter will be considered in the methodology section, but it should be noted that this is a problem of great import with regard to the purpose of the study.

CHAPTER II

REVIEW OF THE LITERATURE

In the previous section, rehabilitation goals were developed, and it was hypothesized that only treatment within a community setting would be sufficient to attain these objectives. The purpose of this section is to examine these generalizations in more depth through a review of the literature, and specifically:

1. To demonstrate the failure of mental hospitals in rehabilitating the mentally ill in light of the goals developed earlier, and to expand upon the reasons for failure.
2. To discuss the implications of this failure for future rehabilitation programs.
3. To examine initial data demonstrating the effectiveness of post-hospital treatment programs.

Treatment in a Mental Hospital Setting

Historically, the mental hospital has assumed responsibility for treating the emotionally distrubed (Miller and Dawson, '68), but it is only within the past two decades that attempts have been made to assess the effect of the hospital experience on the mental patient. Recent literature in this area reveals a significant trend--shorter stays in the hospital, but higher readmission rates. Table 2.1 demonstrates the existence of this trend, not only in the United States, but in other countries as well.

Table 2.1.--Summary of hospitalization trends for psychiatric patients.

Study	Country	Year Published	Length of Hospitalization Stay	Percentage of Readmission within a given time after release	Percentage of Readmission	Readmission Trends
Brown, Parkes and Wing	England	1959	10% of schizophrenic patients remain for period of two years or more as compared with 60% in 1930 and 30% in 1950			Readmission rate increasing--percentage from 1949-1956
Odegard	Norway	1961	increasingly shorter hospitalization (1926-1955)			increasing readmissions
Ratcliff	Scotland	1964	length of hospitalization diminishing	25% chance of readmission within a year		
Hartman and Meyer	Germany	1969	length of average hospitalization reduced from 313 years to approximately 4 months			
Miller and Dawson	U.S.A.	1968	85% released within first 6 months of hospital stay	approximately 40% rehospitalized within first year		
Herjanic, Hales and Stewart	Canada (Saskatchewan)	1969	Chronic patients being released more rapidly than in the past	approximately 20% readmitted 2 years after discharge		
Friedman, Von Mering, and Hinko	U.S.A.	1966	earlier discharge 1037 patients admitted to Cleveland Psychiatric Institute	64% rehospitalization within 5-6 years, 1/3 rehospitalized in 6 months, 2/3 in 18 months		
Spivak, Kelman, et al.	Israel	1971	34% under 3 months; 28% from 4-12 months			
Fairweather and Simon	U.S.A.	1960 and 1963		60-70% of all chronic patients require rehospitalization within 6 months of release		
Soskis, Harrow and Detre	U.S.A.	1969			at least 50% rehospitalized at least once	
Miller	U.S.A.	1965			71% of released patients from Stockton State Hospital rehospitalized at least once	
Rajotte and Denber	U.S.A	1961			87% return rate to state hospital	

Although the population size, length of hospitalization and percentage of readmissions differed from study to study, the trend of shorter hospitalizations and higher readmission rates is apparent; and it can be seen that the career pattern of the mental patient has changed from one of long stay chronicity to intermittent patienthood (Friedman, Von Mering, and Hinko, '66). Given the rehabilitation goals developed in this paper, this trend demonstrates the general ineffectiveness of hospital based treatment programs in rehabilitating the mentally ill. The reasons for this failure can be best understood by discussing the reasons why mental patients are now being released more quickly than in the past and why at the same time, readmission rates are on the increase.

Reasons for Shorter Periods of Hospitalization

One explanation for shorter periods of hospitalization is change in administrative policy (Brown, Parkes and Wing, '61). An example of such a change is the need to release people to the community before it is therapeutically advisable when there is pressure for bed space (Linn, '64; Odegard, '61).

A second and perhaps more significant reason for the early release of mental patients is the increasing emphasis placed on community treatment. Hogarty('68), Stotsky ('67), Titmus ('65), Carhill ('67) and Greenblatt

('68) found that the existence of aftercare programs (i.e., increased community care) accounted for differing release rates among mental hospitals. Freeman ('68) confirms this hypothesis and states that the total accomplishment of the last twenty years has been the transfer of the mental illness problem from the hospital to the community. He also points out that the mental hospital should be looked at merely as a way station, and that intensive treatment and rehabilitation efforts must take place in the community and not the hospital.

A final explanation for early release from mental institutions is the increasing use of tranquilizers and other types of chemotherapy in the treatment of mental illness. Hartman and Myer ('69), Stotsky ('67), Brown, Parkes and Wing ('61) and Moon and Patton ('65) all account for the decreasing number of long term patients in mental hospitals for this reason.

In examining the above reasons for shorter hospitalizations, it is apparent that none of them are related to the increased effectiveness of hospital programs in improving the social functioning of ex-mental patients in the community.

Reasons for High Readmission Rates

High readmission rates, on the other hand, are directly related to the effectiveness of hospital programs, and demonstrate their failure to prepare patients adequately for life in the community. In general, explanations for

this phenomenon can be attributed to the following:

1. Gains in the hospital are not necessarily generalizable to the community.
2. Negative effects of hospitalization
3. Problems of post-hospital adjustment
4. Demographic characteristics related to high readmission rates.

Gains in the Hospital Are Not Necessarily Generalizable

In many instances, despite good hospital adjustment and the lessening of the problems for which the patient was admitted, release from the hospital leads to many difficulties and eventually rehospitalization (Doehne, Sandifer, Phillips and Waters, '65). More specifically, "the return of functioning within the hospital is no guarantee that the patient will function following discharge; amelioration of symptoms in one setting does not mean that symptoms may not recur in another. Somehow, the gains made within the hospital must be consolidated and extended in the post-discharge phase of treatment" (Astrachan and Detre, '68).

There is general agreement in the literature that a wide variety of social services in the community must be established in order to maintain the gains made in the hospital and to help ex-patients deal with additional problems that they will face in the community (Doehne et al., '65; Astrachan and Detre, '68; Miller and Schwartz, '65). An approach suggested by Fairweather ('64) is to teach role

behavior within the hospital that is consistent with community living. As a mechanism to bridge the gap between the hospital and community, Fairweather recommends the establishing of reference groups within the hospital and returning them as units to the community. By creating such groups, similar patient behavior is required both within and outside the hospital, thus filling the needed gap between the hospital and community. The conclusion that can be drawn from the literature, however, is that most hospital experiences do not adequately prepare patients to live outside the hospital environment, thus leading to high readmission rates.

Negative Effects of Hospitalization

A number of theorists see the mental hospital experience itself as being a major cause of chronicity (Erikson, '58; Scheflen, '65; Cumming and Cumming, '65; Fairweather, '64; Greenblatt, '70). Scheflen ('65) sees a number of negative behavioral patterns that result from hospitalization. Some of these include claustrophobia, overdependency, rationalization, self-recrimination and internalized and externalized hostility. Sommer and Osmond ('61) also discuss the symptoms of institutional care: (a) deindividuation -- reduced capacity for thought and action; (b) disculturation -- acquiring institutional values and attitudes; (c) psychological or physiological damage that persists after

leaving the institution; (d) estrangement -- changes in extra-hospital world during hospitalization; (e) isolation -- being forgotten by friends and family; (f) stimulus deprivation -- becoming accustomed to a life whose tempo greatly differs from that outside the hospital. Cumming and Cumming ('65) discuss two other problems related to institutional care: (a) the stigma associated with hospitalization and (b) the loss of social competence in institutionalized settings.

Finally, Erikson ('58) emphasizes the danger of hospitalization by stating that "the medical conditions which it is currently believed provide the optimal clinical setting for treatment may at the same time be social conditions which put a stamp of permanence on the illness. The danger that the patient will find himself a permanent form of activity in keeping with his momentary patienthood, while trying to engineer access to the medical patient role which psychiatry advocates for him, cannot be overlooked when psychiatrists consider their high readmission rates and their constant struggle with chronicity." Erikson goes on to say that the time has come for mental health professionals to produce a therapeutic environment which relies less on medical analogies and places emphasis on "re-education rather than therapy, on development and training rather than on re-integration of ego processes, and on the therapeutic community with its roots in outside society rather than on the

hospital with its specialized culture."

Problems of Post-hospital Adjustment

A third approach to understanding high readmission rates is to look outside the hospital, and in particular at the problems that the ex-patient faces upon returning to the community.

Family Setting

The family setting to which the ex-patient returns is a significant factor in preventing or causing rehospitalization. Results of a number of studies (Davis, Freeman and Simmons, '58; Dinitz et al., '61; Freeman and Simmons, '63; Schooler et al., '67; Michaux et al., '69) demonstrate that return to a conjugal setting leads to higher social performance and prevents rehospitalization. In such settings, expectations of instrumental performance is higher, thus leaving little room for deviancy. In parental settings, on the other hand, there is usually little expectation of instrumental performance and the ex-patient often assumes the role of a child (Davis, Freeman, and Simmons '58; Kohn and Clausen, '56). Even if the ex-patient doesn't return to the hospital, "return of the patient to the parental family...may well occasion regression from rather than movement toward better functioning and eliminates any gains of other hospital experiences." (Freeman and Simmons, '58).

Dinitz et al., ('61) confirmed this hypothesis and found that low functioning patients successful in remaining in the community were in some respects more similar to rehospitalized patients than to the moderate or high level functioners. In cases where families don't exist, surrogate families are often formed that provide the functional equivalents of mothers and wives, and in which patterns can be found similar to those in actual families (Freeman and Simmons, '58). In summary, the family setting to which a person returns, surrogate or real, has been shown to have an impact both on rehospitalization rates and level of patient functioning within the community.

Community Adjustment Problems

Problems related to general community adjustment have also been shown to affect rehospitalization rates. Specifically, loneliness and social isolation are seen as major reasons for high readmission rates (Raskin and Dyson, '68; Miller and Schwartz, '65; Dudgeon, '64). Ex-patients with a history of rehospitalization have also been shown to have a poorer level of social adjustment within the community than those who had no relapses (Bockoven et al., '56). According to Miller and Schwartz ('65), chronic patients who are constantly released and readmitted share the following characteristics: (a) Their community careers are likely to be carried out in a marginal or tangential role position.

(b) They have severe interpersonal difficulties and lack material and emotional support in the community. In general, there seems to be a consensus that the lack of social support within the community to deal with some of the above-mentioned problems is a primary cause of readmission to mental institutions (Brown et al., '64; Lamb, '68; Dudgeon, '64; Miller and Schwartz, '65). "These shuttlebus cases seem to require extensive psychiatric and social services in the community if in the opinion of the professional social worker, they are going to be able to solve their problem in such a way as to remain in the community after their next release from the mental hospital" (Miller and Schwartz, '65).

Employment Problems

A strong relationship has also been shown to exist between employment and the ability to maintain oneself in the community. It has been shown that employed ex-patients remain longer in the community (Linn, '64; Lorei, '64; Brown, Corstairs and Topping, '58; Vitale and Steinbach, '65), and also that readmission rates for the unemployed are higher than for those employed (Dudgeon, '64).

Although there is no disagreement that the employed have lower rehospitalization rates than the unemployed, a strong possibility exists that it is the factors associated with the ability to obtain employment rather than the condition of unemployment itself that causes rehospitalization.

Demographic Variables Associated with Reshospitalization Rates

Attempts have also been made to show the relationship between high readmission rates and a number of demographic variables (i.e., diagnosis, age, etc.), but with only moderate success. (Linn, '64; Taraka, '65) Two variables that have been shown to have a significant relationship with high readmission rates are the length and frequency of previous hospitalizations. Linn ('64) found that the higher the number of hospitalizations, the greater the chances are of being readmitted in less than one year. Freeman and Simmons ('58) on the other hand found that the key variable in predicting length of time in the community is length of hospitalization. More specifically, the shorter the hospitalization, the greater the success in remaining in the community. Spivak and Kelman ('71) also found lengthy stays in the hospital to be predictive of high readmission rates. In studies conducted by Lorei ('64), Pishkin and Bradshaw ('66) and Robins ('55) both the length and frequency of hospital care were found to be related to outcome.

Another variable found to be related to high hospital readmission rates was age of first psychiatric contact. Rosen et al., ('68) found that both the age at first psychiatric contact and scores of a social competence scale were predictive of readmission rates. However, the prognostic value of the social competence scale was based entirely upon its relationship with age of first psychiatric contact, thus

emphasizing its value as a predictor of readmission rates.

Michaux et al., ('69) carried out a comprehensive study of those factors that separated successful vs. unsuccessful (readmission to hospital) community adjustment among mental patients. Using a community adjustmentment scale, they found that social measures discriminate best between successful and readmitted patients. Among the background variables the authors found that number of prior hospitalizations, years hospitalized before last admission and diagnosis (schizophrenia) were the best predictors of rehospitalization.

Post-Hospital Treatment as an Effective Means of Preventing Rehospitalization

In reviewing the literature, it becomes apparent that the mental hospital has not been successful in rehabilitating the mental patient, for despite shorter periods of hospitalization, ex-mental patients are being rehospitalized more frequently and in greater numbers. This is not to say that treatment programs within mental institutions are not effective in alleviating symptoms, but rather that they do not adequately prepare the mental patient for life outside of the institution. The reasons for this failure have been elaborated upon, but the question remains as to how to meet the rehabilitation needs of the mental patient.

A great majority of mental health professionals have concluded that the solution to the rehabilitation of the

mentally ill lies in the development of adequate after-care programs. The 1960's has seen the birth of the community health movement and the establishment of numerous after-care facilities, including day hospitals, mental health clinics, halfway houses and community based vocational programs. The following section will focus on the rationale for after-care programs, and in addition, the effectiveness of such programs in preventing rehospitalization.

Much of the literature dealing with aftercare services describes the need for such programs, and many mental health professionals feel that increased post-hospital services will facilitate post-hospital adjustment, and in the long run, will prevent rehospitalization (Freedman, Von Mering and Hinko, '66; Carhill, '67; Miller, '66; Miller and Schwartz, '65; Lamb, '68; Freeman, '68; Doehne et al., '65).

Becker, Murphy and Greenblatt ('65) describe the entire range of post-hospital services that can be provided for the ex-mental patient. The day hospital, for example, is seen by many as an effective rehabilitation agent, for the patient avoids the stigma of hospitalization and is treated within his own community (Becker, Murphy and Greenblatt, '65; Winn and Lesser, '66; Jones, '63; Vitale and Steinbach, '65; Zwerling and Wilder, '62; Winn and Lesser, '66). Kramer ('62) concludes that "...Day Hospital is potentially the major psychiatric facility of the future. Historical and current trends lend a degree of likelihood to the prediction that the Day Hospital will in fact develop

as an alternative to the full time mental hospital."

The night hospital, on the other hand, is used by patients able to work, but not able to remain at home, and those patients who find themselves in a crisis situation that requires temporary intervention (Mechanick and Nathan, '65; Becker et al., '65).

A third type of facility is the halfway house which provides sheltered living for those expected to have difficulty reintegrating in the community. Wechsler ('61) has surveyed existing halfway houses and their services.

The ex-patient club is seen as another service that can help prevent rehospitalization. Although differing in orientation, most of these clubs have been established to meet the social needs of ex-patients and to teach them gradually how to function independently within their own community (Friedman, '61; Lerner, '60; Palmer, '58; Wechsler, '61; Spivak, '67; Tanaka, '65).

Finally, a number of mental health professionals have advocated the establishment of comprehensive mental health centers that will meet all of the needs of the ex-patient (Wing, '63; Miller, '60; Patterson, '65).

Studies Demonstrating the Success of Post-Hospital Programs

Although descriptive material about aftercare services is in abundance, there is a paucity of literature demonstrating the effectiveness of after-care treatment. The few studies that do exist can be divided into three categories:

1. Studies comparing outpatient vs. hospital treatment.
2. Studies concerned with drug therapy as an aftercare service.
3. Studies comparing outpatient treatment vs. no treatment after release.

Outpatient vs. Hospital Treatment

Weinman et al., ('70) compared the effectiveness of a community based treatment program with a hospital based social treatment program and a traditional hospital program. Results of this study are as follows: (a) A significantly greater number of patients were returned to the community from community based treatment programs than from the hospital based social treatment program. (b) The readmission rate of control (traditional hospital program) patients is significantly greater than that of experimental patients.

The investigators concluded that one reason for the success of the community based program was the fact that it helped patients make meaningful and productive contact with neighborhood social, recreational, religious, and health facilities.

Drug Treatment Programs

Pasamanick, Scarpitti, and Dinitz ('67) compared three groups of patients: (a) drug group kept at home with psychiatric care; (b) placebo group (placebo substituted for

actual drugs); (c) hospital control group -- treatment in accordance with customary hospital procedure. Subjects were randomly assigned to the three groups. Results of the study are as follows: (a) 77% of drug treatment subjects remained at home after thirty months followup. (b) 34% of placebo group remained at home after followup period. (c) 54% of released hospital patients did not require additional hospitalization during the followup period.

The authors concluded that hospitalization is not necessary in many instances since those at home fared as well as those in the hospital. However, they also mention that the fact that a person is saved hospitalization does not validate the effectiveness of the program, especially when one-third of the males couldn't hold jobs and one-third of the females couldn't perform basic household activities. The results, therefore, are more of an indictment of hospitalization than a tribute to home treatment.

Guy, Gross, Hogarty and Dennis ('69) compared the effectiveness of two community based treatment centers. Results of the study are as follows: (a) Day hospital treatment (drugs plus milieu) was more effective for schizophrenic patients than outpatient treatment (drugs alone). (b) There was no significant difference between the number of hospitalizations, but patients treated with drugs plus milieu required shorter hospitalizations.

The existing data demonstrated that although drugs are helpful in maintaining an ex-patient in the community,

their therapeutic value is enhanced when patients are receiving social treatment as well (Astrachan and Detre, '68; Kris, '59).

Outpatient vs. No Treatment

A number of studies have demonstrated the effectiveness of post-hospital services when compared to a non-treatment control group (Orlinsky and Elia, '64; Saenger, '70; Beard, Fisher and Goertzal, '63; Sheldon, '64; Sheldon and Jones, '67). Sheldon ('64) found that psychiatric aftercare is associated with a significantly lower readmission rate (17.7%) than no care (47%). In a followup study of the same population, Sheldon and Jones ('67) found that the same effect (lower rehospitalization rate) holds over three years, but is diminished somewhat. More specifically, it was found that the longer the period spent outside the hospital, the shorter the rehospitalization and the fewer the readmissions. It was also found that poor outcome was associated with (a) a diagnosis of schizophrenia and (b) many readmissions.

Vitale and Steinbach ('65) in comparing treatment in a mental hygiene clinic and day center with traditional hospital treatment, found that both community based groups were found to be less dependent than currently hospitalized chronic patients exhibiting similar demographic characteristics.

The Beard et al., ('63), Sheldon ('67) and Sheldon and Jones ('67) studies also contain other valuable

information relating to the predictors of success in aftercare programs. Beard et al. found that those subjects who remain in the community had a higher degree of initial attendance in the treatment program than those patients who were rehospitalized. Sheldon ('64), Sheldon and Jones ('67) and Tanaka ('65) also found that good attendance leads to lower readmission rates. They concluded that attention should be paid to ensure continuing and regular supervision of cases, as well as the extension of aftercare to a higher proportion of cases.

Summary

The above review of the literature has demonstrated the failure of mental hospitals to rehabilitate the mentally ill given the rehabilitation goals developed in this paper; and in addition, has examined initial data demonstrating the success of post-hospital programs. A case has thus been made for more exhaustive studies of post-hospital treatment programs, and the evaluation of the Moadon Shalom program will be one step towards the implementation of this goal.

CHAPTER III

DESCRIPTION OF TREATMENT PROGRAM

The major independent variable in this study is participation in the treatment program at Moadon Shalom. The purpose of this chapter will thus be as follows: (a) to describe the theoretical and operational aspects of the Moadon program, and (b) to justify the Moadon as an appropriate treatment program to be studied.

The treatment program at Moadon Shalom is a social-psychological approach to mental illness that takes into account personality system variables, social system variables and their reciprocal impact on one another. The model of personality used is that of Cameron and Magaret (151), a social theory with behavioral interpretation that emphasizes social interaction processes. More specifically, schizophrenia is conceptualized as evolving from and comprising a dynamic interaction of disorganization and desocialization. Disorganization is defined as a disruption of a unified reaction or system of reactions, and its replacement by behavior that is fragmentary, haphazard and chaotic. Desocialization, on the other hand, is defined as a reduction in social articulation of behavior which results from the partial or complete detatchment of an individual from the activities of the social community.

The rehabilitation club (Moadon Shalom) is structured so as to provide an environment that should counteract desocializing and disorganizing influences. Within this framework, there are a series of constructs that mediate the interaction of personality and organization variables and which, when operative, counteract the conditions of desocialization and disorganization. They are as follows:

1. Interactional control mechanisms -- interpersonal relationships between staff and patients that counteract desocialization: (a) social support (b) permissiveness of the expression of deviant tendencies (c) denial of reciprocity for deviant expectations (d) conditional manipulation of rewards.

A dichotomous relationship can be seen between the first two and last two control mechanisms, but this does not imply a contradiction. Instead, it indicates support or nonrejection of deviant behavior, while at the same time pointing out that one's behavior is not optimal and should be changed.

2. Social structural control mechanisms -- hypothesized to counteract disoragnization and derived from special institutionalized roles and mechanisms: (a) dimension of integration -- establishing a stable environment whose structure of expectations is integrated, and in which influences upon the patient are supportive and compatible. (b) adaptive dimension -- social conformity demands in club that approximate demands of the community (c) instrumental role performance -- initially

using simple tasks in the building of success contingencies, rather than the complex requirements of adult-status roles. (d) affective-expressive dimension -- permissiveness of social structure for the expression of emotional excitement which in turn is countered by the manner of interaction with the patient (e) social role adequacy -- binding the patient into various instrumental and status role structures in his group and other aspects of the club, including interrelationships among patients, patients and staff, and work program.

Given the interactional and social structural control mechanisms, the general goal of the club can be stated as follows: "The goal towards which our rehabilitation club strives in its attempt to counteract desocialization and disorganization is to help the patient develop those generalized resistance resources which can be applied to meet the demands placed on him by his inner and outer environment" (Spivak, '69). The concept of resistance resources was developed by Antonovsky ('69) and includes the following: (a) adaptability -- flexibility and readiness to adapt to new situations (b) profound ties to immediate others -- the greater the extent interpersonal ties exist, the more one will be able to deal with demands, and (c) ties between the individual and the community.

All programs of the rehabilitation club are based on the theoretical constructs outlined above, the operative aspect of which is the quality and quantity of social inter-

action a person has within his community. On a more descriptive level, the rehabilitation club has been described (Spivak, '67) as follows:

> The Day Program of the Rehabilitation Club is viewed as a basic departure from the sheltered, rehabilitation workshop programs which are being increasingly utilized and adopted for the rehabilitation of the psychiatric patient. The Day Program is organized specifically to meet the needs of the severely disabled group of ex-patients. It is the problem of motivating the patient to accept services designed to help him that occupies a great deal of our effort at the Rehabilitation Club. Handling at intake, the daytime environment, and a reaching out program are specifically designed to facilitate the patient's involvement in the rehabilitation environment. A rehabilitation setting must be successful in getting the patient initially involved if the rehabilitation effort is to be realized. In general, the patients who are sought for service at the Rehabilitation Club will be those not regarded as having sufficient potential for existing vocational training programs, and thus neither reach nor are referred to agencies, or have been rejected by more orthodox rehabilitation programs.
>
> Thus, one of the primary functions of a Rehabilitation Club is to reach out to such patients, and to involve them in a real environment where they have the opportunity to form interpersonal relationships which are not unduly influenced by their pathology, by avoidance or over reaction of others. The patient becomes a part of the group environment, where he can receive social gratification and where he can respond to influences designed to help him re-organize his life, not only in terms of simple everyday routines and habits, but also in terms of his identification with an environment in which the performance of productive work has a high value.
>
> The Rehabilitation Club operates with a set of standards sufficiently different from the community at large, so that the patient is able to achieve membership in a social environment not otherwise available to him. Demands upon the member are not as high or as persistantly maintained as they are in the community, nor are certain deviances as severely sanctioned. In a nonclinical atmosphere, staff,

volunteers and members attempt to provide a family-like milieu, in which the new member can become involved in positive, interpersonal relationships. Patients are helped to learn new roles, to assume previous roles, leading to the establishment of interpersonal relationship through which reality testing occurs, and the patient's motivations, desires and value for life and work are increased.

The basic orientation of the Club program can be summarized as follows:

The activities program is generated by concepts that the ex-mental hospital patient is disabled in the use of social tools either as a result of his illness, hospitalization, or as a result of a total life experience. Since many of the men and women are unable to obtain employment or to resume family roles immediately following their hospitalization, the program endeavours to enable such individuals to re-develop their former skills, capacities and tolerance for work, as well as increase their motivation for employment and confidence that a job can be handled successfully. The program is designed to counteract the tremendous discouragement that results when one is unable to secure a job or hold it.

The first objective is to attract into the club during the day men and women who are making only a marginal adjustment in the community, or who, while still patients in the mental hosiptal, are facing imminent release. Initially involvement is on a passive level, sitting, reading, talking and eating. Members at this stage are for the most part unemployed and tend to be socially isolated. Even though they are attracted into the program for various reasons, their initial passivity occurs in an atmosphere in which many productive activities are occurring.

As the new passive, withdrawn member finds himself in this busy environment he becomes slowly involved in the basic motivation provided by the setting. The activities provided by the program include menu planning, cooking, serving food and washing dishes, sweeping floors, painting rooms, running errands, addressing and sealing envelopes, typing membership mailings. All these activities require the learning of regularity and the development of routine work

habits. In addition, a broad range of social and recreational activities have been undertaken in which the interests of the patient can find expression: classes in game playing, music appreciation, arts and crafts are offered. Efforts are also made to expand the members' social participation in various community activities where they will form relationships with other healthy people.

Because many potential members of the Club are too withdrawn or unmotivated to initially become full participants in the rehabilitation services of the Club, we have organized visiting teams of staff and members to reach out to such "home bound" individuals.

Finally, as members take up employment or continue in their present employment, the vocational counsellor, together with other staff seeks to extend relationships developed in the Club into the work situation and conversely bring new and important issues aroused at work into the therapeutic environment of the Club.

Now that both the theoretical and operational bases of the Moadon program have been described, its role as the major independent variable in this thesis can be justified. Specifically, the Moadon is an appropriate treatment program to be evaluated because of its compatibility with both the general goals of psychiatric rehabilitation[1] and those developed in this thesis.[2]

[1]"assisting the patient in transition from a protective hospital environment to independent community living by changing the social identity of the individual from that of a patient to a functioning citizen", (Tanaka, '65); "reintegration of the individual into the community on the most efficient and useful level of adjustment possible", (Carmichael, '59); "assisting the patient to achieve an optimal social role in the family, or on the job and in the community, generally, with his capacities and potentialities, (Williams, '53).

[2]Maintenance of the ex-mental patient in the community, and adequate adjustment in major living tasks -- living arrangements, household duties, work, self care, social activities and recreational activities.

As can be seen from the general definitions of rehabilitation stated above, the basic goal of any post-psychiatric rehabilitation program is to help a person adapt to life outside of the hospital. The Moadon program fits within this general framework, for its major concern is to teach the social skills necessary to adapt to community living (including those social skills that facilitate vocational adjustment.) In addition, the Moaddn is not only geographically located within a community setting, but has made every effort possible to integrate itself into the community at large. A great deal of staff time is thus spent contacting civic leaders, employers, family of clients, and others who play significant roles in the process of community adjustment for ex-mental patients. Contacts with family members, for example, are useful in providing support for efforts to help the client adjust to life within the family setting, and in providing feedback as to the problems being experienced at home. Contacts with employers are also beneficial, in that they make them aware of a possible resource for employers, amd more important, give the employer a place to turn in the event that a client is having difficulty on the job, thus giving him an alternative to firing the client.

The Moadon's involvement in the community differentiates it from hospital based programs, and is the key to its potential success. Specifically, helping to link the ex-patient to various community resources is especially important for one who has been living in a relatively dependent state in an

institution where his needs are met and where little initiative is required. Furthermore, a program that strives to make itself an integral part of the community and that encourages staff involvement with community leaders, potential employers, and family members, should facilitate the task of community adjustment for the ex-patient.

The choice of the Moadon treatment program as the major independent variable in this thesis can also be justified on the basis of its theoretical framework. The central point regarding the theoretical constructs of the Moadon is that emphasis is placed on treating the individual within the social system in which he lives. The above stated rehabilitation goals are compatible with this approach for they are concerned with helping the ex-mental patient learn the social skills necessary to maintain himself within the community. Specifically, helping an individual to attain adequate adjustment in his living situation, work, and social activities, requires involvement in relevant community organizations, as well as individual treatment (or support), thus justifying a treatment approach that emphasizes personality system variables, social system variables and their impact on one another.

The specific aspects of the theoretical structure are designed to help the ex-patient develop the resistance resources necessary to meet demands within the community. For example, the staff-client relationship as defined by the interactional control mechanisms provides both the support the ex-patient

needs to work out his problems (social support, permissiveness of the expression of deviant tendencies, etc.) and the requirements of reality that he will be facing once on his own in the community. (achieved by mechanisms 3 and 4 -- denial of reciprocity for deviant expectations, and conditional manipulation of rewards.)

The social structural control mechanisms are designed to gradually help the client to adapt to organizational structures similar to those found in the community. For example, within the club itself, social conformity demands are placed on the client just as they will be in the community (adaptive dimension). In addition, within the various activities of the club, the individual must learn the appropriate roles necessary to function in his group, with other patients, with staff, and in a work setting. However, demands are placed on the client gradually, and in the early stages of the program more permissivity is acceptable than in community institutions. Also, simple requirements are placed upon the client before attempting to teach him complex adult-status roles.

In summary, the Moadon is essentially attempting to prepare its clients for independent functioning within the community, but in an environment in which they are not confronted with all of society's demands at once. Instead, he is given an opportunity to learn them gradually with the support of the staff. Such a program appears to be directed toward the goals of maintaining the ex-patient in the community (by structuring

the program so as to provide support during crises, tolerance during regressions, and allowing the client to meet society's expectations in gradual steps rather than confronting him with them all at once) as well as helping him adjust to the major living tasks within the community (by providing services such as helping to find adequate living arrangements, linking members to social facilities within the community, assisting in job placement, and teaching skills in the area of self care, household duties and interpersonal relations) thus demonstrating its compatibility with the rehabilitation goals adopted in this paper.

In terms of its compatibility with both the general goals of rehabilitation and the operational definition of rehabilitation developed in this paper, the Moadon appears to be an appropriate program to evaluate in terms of its effectiveness in rehabilitating ex-mental patients. In addition, such an evaluation should demonstrate whether this apparent semantic compatibility is also indicative of the behavior change that should accompany participation in a program of this nature.

In summary, this chapter has focused on the following: (a) describing the theoretical constructs of the Moadon's treatment program, (b) describing the operational aspects of the Moadon program, and (c) justifying the Moadon as an appropriate treatment program to be evaluated.

CHAPTER IV

DESIGN OF STUDY

The purpose of this chapter is to describe the design of the study. Specifically, the following will be discussed:

1. Dependent and Independent Variables
2. Instrumentation
3. Sample
4. Procedure
5. Experimental Design
6. Hypotheses
7. Analysis Procedures

Dependent and Independent Variables

Dependent Variables

In describing the dependent variables of this study, discussion must focus on what represents successful outcome in a post-psychiatric rehabilitation program. Given the goals of this paper, any definition of success must include both a measure of community tenure and community adjustment:

1. Community Tenure -- Community tenure can be

evaluated in a number of ways. One possible approach would be to consider only the amount of time spent in the community after referral to the Moadon. This definition is not adequate, for symptoms of mental disorders often reoccur, and without information relating to time spent in the community before referral, it is only possible to assess the length of time spent in the community, and not whether there has been an increase or decrease of time spent in the community. For the purpose of this study, it is important to consider the amount of time in the community both before and after referral to the Moadon, since we are interested in learning whether the Moadon is effective in increasing community tenure. The definition of community tenure adopted for this study is thus the percentage of hospitalization time saved since being referred to the Moadon. If, for example, twenty months had passed from time of referral to March '71 (cut-off date for evaluation study -- records are still being kept) and the client was hospitalized for two months out of the twenty, this figure was compared with the client's hospitalization during the twenty months previous to his referral to the Moadon. Assuming that he was hospitalized for ten of the twenty months, his percentage

of hospitalization saved would be 80%.

$$1 - \frac{\text{Time hospitalized after referral}}{\text{Time hospitalized before referral}} \quad 1 - \frac{2}{10}$$

2. Community Adjustment -- For the purpose of this paper, community adjustment was defined as the quantity and quality of social interaction in the major living tasks in which social functioning takes place. These living tasks as delineated by Spivak ('69) are as follows: (a) living arrangements, (b) household duties, (c) work, (d) self-care (appearance, medication, therapeutic visits), (e) social activities, and (f) recreational activities. The tool used to assess the level of functioning in these living tasks was the Social Interaction Questionnaire which will be discussed in depth in this chapter. Although present level of functioning would provide one indicator of community adjustment, a more meaningful measure would be to compare one's present level of functioning (after or during participation in the Moadon) with his functioning during a different period of time. The Social Interaction Questionnaire provides such a comparison, for it assesses present functioning and functioning at one's best period since the age of twenty. The operational definition for the two aspects of community adjustment being considered (quantity and quality of social interaction)

is as follows: The higher the present level of functioning, and the smaller the discrepancy between present and past levels of functioning, the higher the level of community adjustment. More specifically, a subject would receive the highest possible score if his level of functioning after participation in the Moadon was better than during his best period since the age of twenty. The next highest score would be assigned to a subject whose level of functioning had not changed since his best period (no discrepancy) and who was functioning on a high level during both periods. A lower score would be assigned to a subject for whom there was no discrepancy but who was functioning on a low level during both periods; and the lowest score would be assigned to a subject whose level of functioning is lower at present than it was during his best period (high discrepancy). One score was assigned for each living task, and these scores were combined to form two global scores--one for the quantity and the other for the quality of social interaction.[1]

Independent Variables

Of primary importance in any study is the selection of the independent or treatment variables. The major

[1]The rationale for scoring is discussed in depth in Appendix A.

independent variable in this study is participation in the treatment program at Moadon Shalom. For the purposes of this study, participation in the treatment program was defined according to two criteria:

1. Outreach -- total number of contacts concerning the client. More specifically, outreach is defined as staff effort to involve the ex-patient in the Moadon program, including contacts with a member himself, social workers, psychiatrists, psychologists, employment bureau, place of employment, landlord and family. Low outreach was considered to be 1-10 contacts, medium outreach 11-30 contacts and high outreach 31+ contacts.

2. Attendance -- total number of times that a client participated in the Moadon from time of referral. Low attendance was considered to be 50 attendances or less, and more than 50 attendances was considered to be high attendance. It should be noted that the criteria for developing the ranges for high and low attendance, and high, medium, and low contact, were arrived at by polling veteran staff members and arriving at a consensus among them as to appropriate cut-off points.

In addition to the major independent variables stated above, a number of demographic variables that have

been shown to correlate with rehabilitation success in the literature are also being treated as independent variables. A list of these variables and the references in which their relationship with rehabilitation success has been demonstrated is as follows:

1. Total number of admissions (Bockoven, et al., '56; Miller and Schwartz, '65; Linn, '64; Lore, '64; Pishkin and Bradshaw, '66; Robbins, '55).

2. Diagnosis (Michaux et al., '69).

3. Total time in hospitals (Michaux et al., '69).

4. Length of admissions (Freeman and Simmons, '63; Lore, '64; Pishkin and Bradshaw, '66; Robins, '65).

5. Age at first admission (Rosen et al., '68).

6. Length between admissions -- not discussed in literature, but is hypothesized to correlate with rehabilitation success.

7. Employment status (Linn, '64, Lorei, '67; Brown, Corstairs and Topping, '58; Vitale and Steinback, '65; Dudgeon, '64).

8. Living situation (Raskin and Dyson, '68; Miller and Schwartz, '65; Dudgeon, '64).

9. Marital status (Davis, Freeman and Simmons, '58; Dinitz et al., '61; Freeman and Simmons, '63; Schooler et al., '67; Michaux et al., '69).

Instrumentation

Three sources of information were used in the evaluation of the Moadon program:

1. Social Interaction Questionnaire -- Because the rehabilitation club is bound to specific theoretical constructs, the task of assessing outcome is much easier. As mentioned earlier, the operational aspect of these constructs is the quality of social interaction a person has within the community. To help with the development of a questionnaire designed to measure social interaction, facet theory (Guttman, '58 and '70; Jordan, '71) was used to construct a mapping sentence upon which the questionnaire is based. The focus of this social interaction mapping sentence is on living tasks, and we are interested in knowing how the patient (or ex-patient) interacts with others for the purpose of happiness, support (financial), and obligations. In addition, the mapping sentence is constructed so as to give us information as to the patient's present state, a past state (the best state since the age of twenty), and a comparison between these two states.

The construction of the questionnaire (Spivak, '67) was guided by a facet design which makes it possible to construct items by a systematic a priori method instead of

MAPPING SENTENCE FOR SOCIAL INTERACTION

	A Condition		B Social Relations		C Living Tasks		D Referrent
The	(1. state of (2. change in)	ex-patient (x)'s	(1. involvement in (2. liking of)		(1. living arrangements) (2. homemaking activities) (3. work) (4. self care) ((a. appearance)) ((b. medication)) ((c. therapeutic visits)) (5. social & recreational) (activities)	provides	(1. self) (2. others) (3. self and others) (4. neither)

	E Action		F Referrent		G Purpose		H Time			
with the fulfillment of	(1. giving to (2. receiving from)		(1. self (2. others (3. self and others) (4. neither)		(1. happiness) (2. support) (3. obligations)	at	(1. best state since age 20) (2. present time) (3. general)	———	high : low	social interactio

Mark Spivak, Ph.D.
The Israel Institute of
Applied Social Research
1967

Figure 4.1 Mapping sentence for social interaction

intuition or by use of "judges." Thus, by combining each element of each facet of the mapping sentence, one with the other, it would be possible to have 2x3x5 etc. number of variables and hence that number of questions. However, in constructing the questionnaire, only those questions making both semantic and psychological sense were employed, while trying to use as wide a range as possible of these combinations.

A facet-by-facet examination of the mapping sentence will demonstrate how the questionnaire was developed from it (Figure 4.2).

2. Census Study -- The census study was undertaken in order to define the nature and characteristics of the Jerusalem mental patient population. The definition of population parameters enabled the interrelationship among various variables to be studied (i.e., ethnic origin with length of hospitalizations, sex with number of hospitalizations, etc.), provided information regarding services required by various segments of the mental patient population, and in addition, provided the baseline data necessary to define the nature of the Moadon population.

Information for the census was collected on 1,531

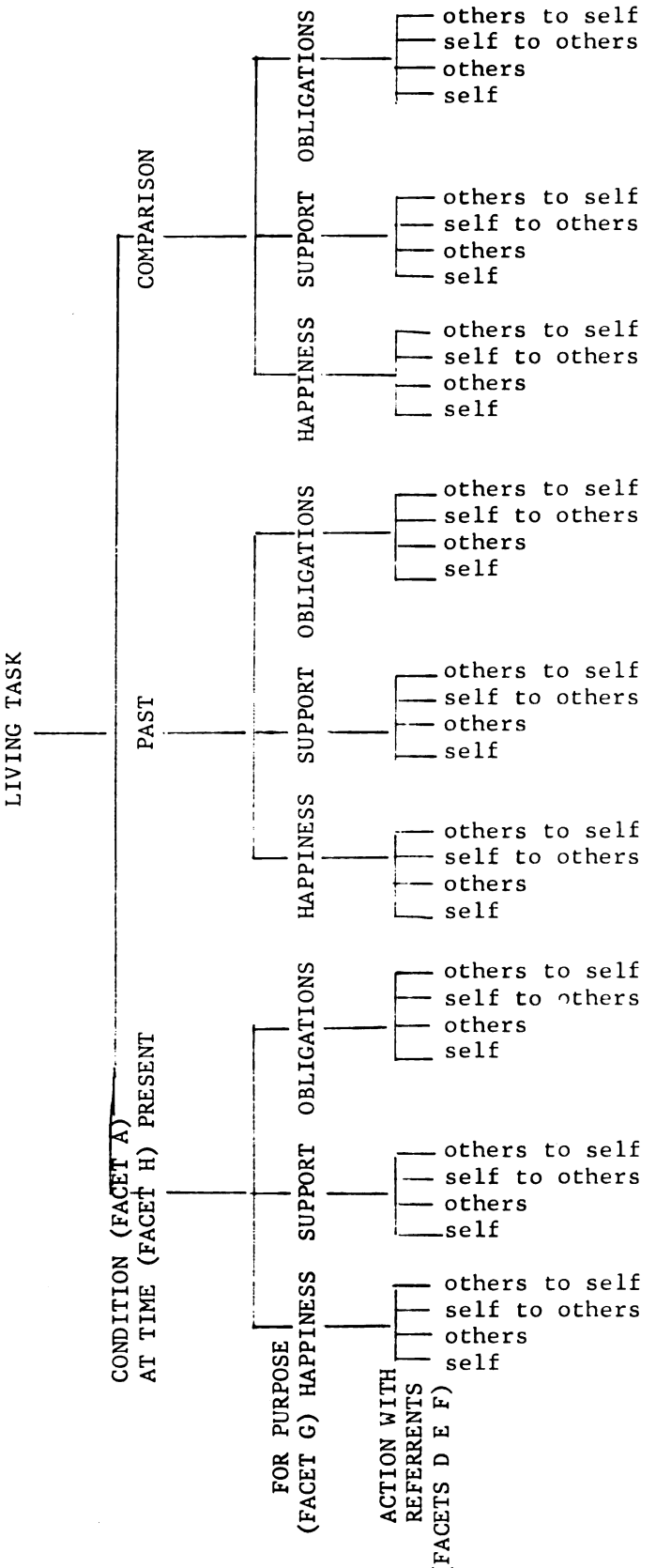

Figure 4.2 Schematic presentation of facetized content for each living task (Facet C)

patients discharged to the Jerusalem area at least once in a five and one-half year period from hospitals in the Jerusalem area. It should be noted that this includes patients who were first hospitalized prior to the five year period and discharged during the five year period, but does not include patients who were admitted and discharged before this period. The names of patients discharged during that period were collected from the five main hospitals in the Jerusalem area, as well as from a half-way hostel. Further information was gathered from the central index of the Ministry of Health, and additional data was synthesized by the research staff such as time between hospitalizations and total time hospitalized. In summary, when one or more discharges occurred during the period of time covered by the census study ('63-'68), it was possible to collect a fairly complete history for the 1,531 patients included in the study.

3. Moadon Records -- In addition to the above sources of data, records kept by the Moadon provided a final source of information. Specifically, data were gathered from: (a) attendance sheets--daily record of client attendance in all Moadon activities; (b) communication sheets--a detailed record of staff contacts including

object of contact, reason for contact, amount of the contact, and who initiated the contact.

Sample

The sample for this study was obtained from two sources: (a) the census study of the Jerusalem ex-mental patient population and (b) the client population at Moadon Shalom.

The census study was described in the discussion on instrumentation, and the census population itself comprised the 1,531 Jerusalem area residents who were discharged once from a Jerusalem mental hospital between 1963 and 1968. The major function of the census population in this study was to provide population parameters with which the Moadon population could be compared. Specifically, by using these population parameters as a baseline measure, it was possible to describe the Moadon population in terms of these variables, and as a result, define that segment of the ex-mental patient population that is being treated at the Moadon. The specific population that was compared to the census was the 150 active participants in the Moadon program. Active participants were those judged by staff members as people who have either actually participated in Moadon activities and/or for whom

sufficient effort had been made to involve them in the program. More specifically, participants were rated active or inactive by a concensus reached among the four staff members who had worked at the Moadon since its inception. It should be noted that clients were considered to be active even when efforts were unsuccessful in drawing them into the program. Therefore, in evaluating the success of the Moadon program in increasing community tenure, the data will be biased against the Moadon, for some of the clients being considered were those who never participated in Moadon activities but who were considered active on the basis of the outreach extended to them.

In administering the questionnaire to Moadon clients, attempts were made to involve both active and inactive clients. The results of these efforts were disappointing, for it was only possible to administer the questionnaire to 70 of the 150 active clients and 7 of the 53 inactive clients. The reasons for this lack of success will be discussed in depth in the section on Procedure, but can be summarized briefly as follows: (a) Inability to locate subjects who were no longer participating in the Moadon or who had never participated in the Moadon program; (b) Lack of interviewers--although beginning with approximately 35 interviewers, most

had terminated their work before interviewing was begun with Moadon clients (the initial interviews were carried out with subjects in the census population as part of the overall research project). (c) Complexity of the questionnaire -- some of the more chronic clients were not able to relate to many of the questions asked in the questionnaire.

In summary, those who actually comprised the sample of this study are as follows: (a) the 1,531 subjects in the census study of the Jerusalem ex-mental patient population, (b) the 150 active participants in the Moadon Shalom program, and (c) the 77 clients in the Moadon to whom the social interaction questionnaire was administered.

Procedure

Figure 4.3 represents an overview of the work necessary to execute the entire study of the Jerusalem ex-mental patient population, of which this thesis is a part. The following outline is an expanded form of Figure 4.3:

IA. Organization of demographic and other relevant data. The demographic data was obtained from the files of the Ministry of Health in Jerusalem. These data were coded, transcribed to Fortran sheets and punched on computer cards.

A. Coding of other information related to Moadon program

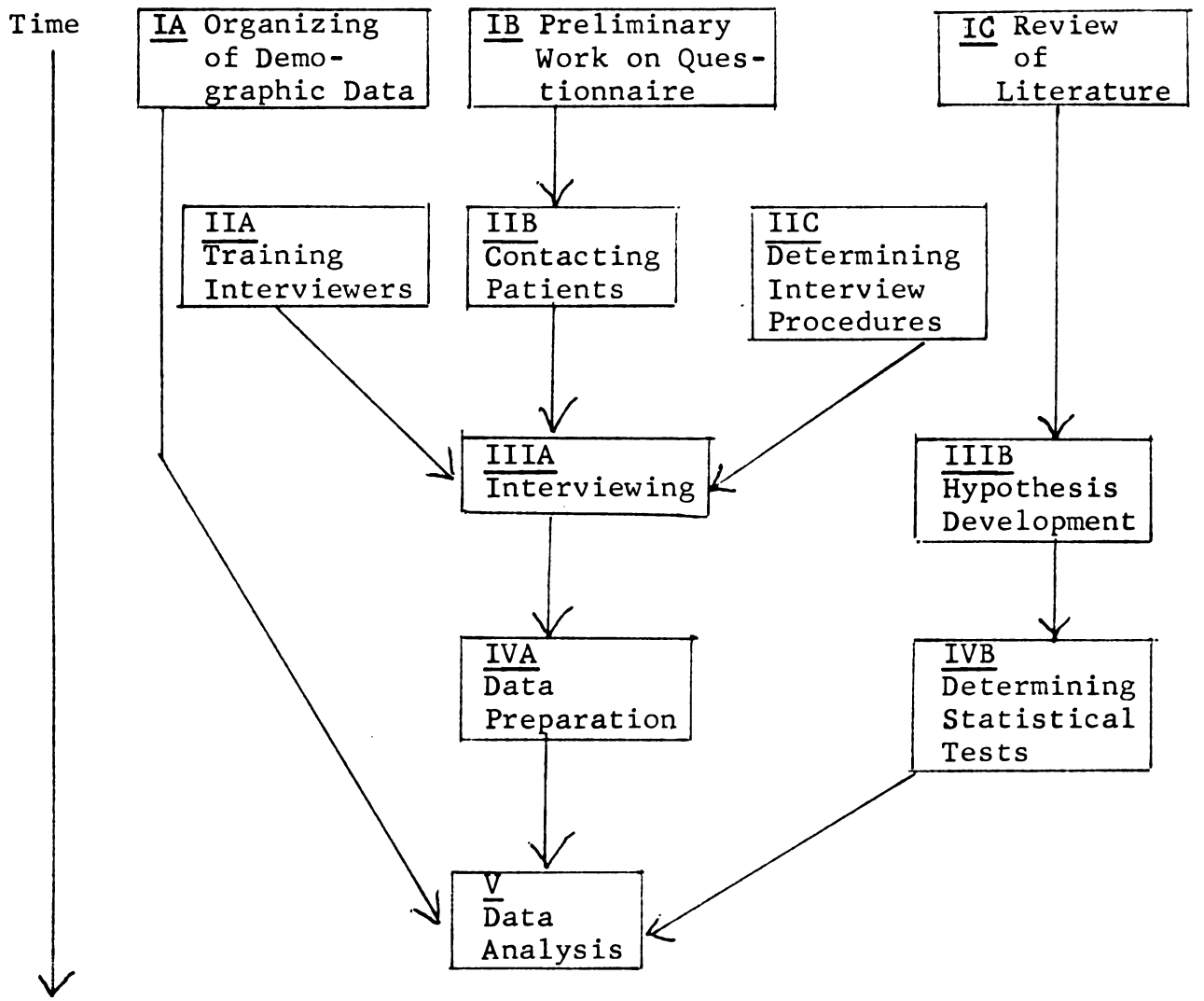

Figure 4.3 -- Diagram of work necessary to execute study

1. Attendance sheets -- Client attendance in all activities has been kept since the inception of the Moadon. This information was coded in the same manner as the demographic data described above.
2. Staff contact sheets -- Records of all staff contacts at the Moadon have also been kept [i.e., object of contact, type of contact (phone, letter, etc.), length of contact and reason for contact], and this information, as the above, was coded, transcribed onto Fortran sheets, and punched on computer cards.

IB. Preliminary Work on Questionnaire

A. Subjects for questionnaire

1. Names and addresses -- Records of the Ministry of Health, individual hospitals, and the Moadon were used to obtain the most recent address of project participants.
2. Letter preparation -- A letter explaining the purpose of the project, and asking for participant cooperation, was written.
3. Permission from hospitals -- Meetings were

arranged with the administrators and professional staff of Talbiye Hospital in order to obtain their permission to interview patients, who at one time were hospitalized in that institution.

B. Preparation of questionnaire

1. Practice trials of the questionnaire were administered; problems in the questionnaire and answer sheet were noted.

2. The questionnaire and answer sheets were thoroughly reviewed and written up in their final form.

C. Preparation of the instruction book -- An instruction book was prepared for interviewer orientation which discussed in depth the questionnaire, the purpose of the project and how to contact and interview ex-patients.

IC. Review of Literature

A. Reading and categorizing of relevant literature

B. Writing a review of the literature

IIA. Training of Interviewers

A. Recruiting interviewers

1. Ads were placed in local papers and on the

bulletin board at the University for interviewers with appropriate qualifications (psychology and social work students and/or professionals in those fields).

2. Prospective candidates were interviewed and those suitable for the study were invited to the orientation session.

B. Instruction and practice trials of interviews

1. Two preliminary orientation sessions were held in which information in the instruction book was presented.

2. Interviewers were instructed to review thoroughly the questionnaire and to administer two practice questionnaires at home.

3. Interviewers met in small groups with research coordinator at which time problems with the questionnaire were brought up and answer sheets were reviewed. Interviewers were also given an opportunity to role play in order that their competence could be evaluated.

IIB. Contacting Patients

A. Letters were sent to prospective interviewees

informing them that an interviewer would soon come to their home and asking for their cooperation.

B. Returned letters were noted, and attempts were made to locate new addresses by checking hospitals and/or Moadon files.

IIC. Interviewing Procedure

A. Weekly appointments were made with interviewers to discuss problems and to return answer sheets.

B. Returned answer sheets were checked for accuracy.

IIIA. Interviewing Patients

IIIB. Hypothesis Development

IVA. Data Preparation

A. Answer sheets were checked a second time.

B. Answer sheets were sent for punching.

C. Punched cards were received.

D. Cards were submitted to computer and marginals received.

IVB. Determining Statistical Tests to be Run

VA. Data Analysis

A. Cards again submitted to computer with instructions as to which tests should be run.

B. Return of data

It should be noted that the above outline and description of procedure does not contain a discussion of the numerous problems that were experienced in the execution of this study. A discussion of these difficulties will indicate the types of problems that can arise in a study of this nature and should be useful for those carrying out similar projects.

A basic problem in this study and one for which solutions are not readily available is that of sampling. A general goal of the project was to administer the questionnaire to the 1,531 people who comprised the population of the census study.

Two major obstacles had to be overcome in this area, one of which was successfully resolved, and the other which prevented the execution of the study as originally planned. Since the Ministry of Health has records on every person who has been hospitalized in the State of Israel, defining the mental patient population in Jerusalem and its demographic characteristics (i.e., sex, number and length of hospitalization, etc.) presented little difficulty. However, in attempting to interview this population, problems began to arise. In order to begin the study, permission had to be sought from the hospitals in which the patients were hospitalized.

The administrator of the largest hospital (635 out of the 1,531 were hospitalized there) was approached, and his permission was sought to carry out the interviews. Although agreeing with the general goals of the study a year previously, he felt that he could not give his final approval until he consulted his professional staff. Many of the staff psychiatrists at first opposed the project on the following grounds: (a) The interview might stir up dormant problems in the ex-patients. (b) Such an interview was an infringement upon the privacy of the individual, especially those whose hospitalization had been kept a secret from their family. (c) Since the interview was not of therapeutic value for the individual subjects, it was unethical to ask them to participate in an experiment of this nature.

In order to allay their fears, a meeting was arranged between the project director and the hospital staff. At this meeting, the questionnaire and purpose of the study were reviewed in detail and the value of the study for ex-mental patient population as a whole was emphasized. At the end of the meeting, an agreement was reached, and the hospital staff was given the option to eliminate those patients for whom they thought an interview would be damaging. By the time the approved patient list was returned, more than a month and a

half had passed and much valuable time had been lost. Unfortunately, problems with the hospital administration did not stop at this point. Upon receipt of the letter asking for participation in the project, approximately ten ex-patients contacted the hospital and stated their refusal to be interviewed. This response caused additional antagonism towards the project on the part of the hospital administration, and pressure was brought to bear on the research team to discontinue the project. Again, it was necessary to reassure the hospital staff that it was only a small minority of patients who responded negatively to the project, and this was not sufficient justification to terminate it. After a week or so of negotiations, approval to proceed was obtained, but again valuable time had been lost.

A second and more serious problem was the inability to locate many of the subjects who were to be interviewed. As mentioned earlier, addresses were obtained from the records of the Ministry of Health, and those that were unclear or unavailable were obtained from the hospital records. Of the 600 interviews that were attempted, approximately 30 subjects indicated that they did not want to participate in the experiment, 87 were carried out successfully, and the others could not be located. In many instances, the addresses

listed were non-existent and in others the subject had changed his residence. When the latter occurred, neighbors were asked as to the whereabouts of the subjects and, although in some cases it was possible to locate them in this manner, in most cases little help was given. Although other resources were available to track down subjects (i.e., tax records, voting records, etc.), budgetary limitations made it impossible to proceed further. Instead, all efforts were focused on the more easily accessible population at Moadon Shalom. From this experience, it was concluded that unless hospital records are extremely accurate and up to date, an extremely large budget is needed to locate subjects successfully in a project of this scope. Given the present situation, the only solution to this problem appears to be a full-time staff with the sole responsibility of tracing subjects; but this again requires the monetary allocations mentioned above.

Another major difficulty in this study was that of maintaining interviewer motivation. Approximately 50 potential interviewers participated in the first orientation session. By the end of the second session, about 10 had already been eliminated because of an inability to master the questionnaire or because of their decision not to participate due to the low salary or pressure of school work.

The greatest number of interviewers dropped out after their first few interviews. Many found the actual interview expe-rience with ex-mental patients to be too traumatic, others found it difficult to work with such a lengthy question-naire and other interviewers were frustrated by the fact that they were spending most of their time tracking down clients rather than interviewing. Although individual meet-ings were held with the interviewers in a very supportive atmosphere, only about 15 interviewers became totally com-mitted to the project and became adept at administering the questionnaire. Solutions to this problem are also not readily available, for in a situation where a small salary is not compensated for by a rewarding experience, it is extremely difficult to maintain interviewer motivation.

A final problem that was alluded to earlier was the complexity of the questionnaire itself. Many questions, especially the more abstract ones and those dealing with comparisons of past and present states, confused many of the subjects. Other questions raised problems that many of the subjects had given little or no thought to in the past, thus causing additional difficulties. The high per-centage of "no response" or "inability to respond" scores substantiated this generalization. In addition to problems

of complexity, some interviewers felt that the questionnaire was too lengthy for many subjects. Specifically, it was felt that for chronic and regressed subjects, it was extremely difficult to concentrate on the questions for a long period of time. Even after the interview was divided into two sessions (1-1½ hours each), many interviewers felt that they often lost contact with the subject and had to struggle to maintain the subject's interest.

Experimental Design

The experimental design in this study was developed for both the specific goals of the project and as a general approach in rehabilitation research. The traditional approach in determining the effect of specific treatments is to make inferences about population parameters from sample information. Such an approach typically involves the comparison of two or more groups, therefore suggesting the use of a control group. In experiments of this nature, the major objective is to eliminate any systematic differences between the treatment and control groups except what is specifically described as treatment. The use of random sampling and assignment helps to achieve this goal and inferences can then be made about the population from which

samples were drawn.

This approach presents some major problems in the evaluation of psychiatric rehabilitation programs. First of all, taking a random sample from a specific client population and randomly assigning the subjects to experimental and control groups does not assure the representativeness of the two groups in terms of the population of psychiatric patients or ex-mental patients, since referrals to psychiatric rehabilitation programs are not made on a random basis. It is thus difficult to ascertain what kind of population we can make inferences about. Since a basic assumption of random selection is being violated (every individual in a population has an equal chance of being selected), inferences cannot be made about the general population of ex-mental patients, but only about the population from which the sample was drawn (i.e., population of a particular rehabilitation center), thus limiting the external validity of the study. Practically speaking, if a particular treatment is found to be effective within a given group, its further use is limited unless the client population is adequately defined.

Adopting an alternative approach of matched groups (matching on a number of variables related to the dependent variable) does not insure comparable groups because of the

difficulty in identifying all of the relevant variables in psychiatric programs. This assumption has been substantiated by researchers (Linn, '64; Tanaka, '65) who have had only moderate success in isolating variables that are related to community adjustment.

The use of research designs that depend on the use of inferential statistics can thus be seen to have serious limitations in studies designed to assess the effectiveness of psychiatric rehabilitation programs. What appears to be needed is a new kind of research design that eliminates the above limitations, and that is appropriate for the evaluation of rehabilitation techniques.

Evaluation of most rehabilitation programs falls into the framework of a field study. Specifically, rather than being artificial situations created in a laboratory type setting, they are real situations in which certain phenomena of interest are found. Within this framework, two general types of studies can be designed:

1. Exploratory studies -- concerned with discovering and analyzing relationship between variables, rather than predicting relationships.

2. Hypothesis testing -- detailed measures are taken of the independent variable, and exact predictions are made

on the basis of the theoretical model upon which the program is based.

For the purpose of studies concerned with evaluating the effectiveness of rehabilitation programs, the latter alternative is most appropriate, and was used as the general framework of this study. Specifically, we are talking about a theoretically oriented research project in which the experimentor manipulates an independent variable in a real social setting in order to test some hypothesis.

The major disadvantage of field studies is that they prevent the use of experimental designs based on inferential statistics because of the difficulty in creating control groups and selectively applying treatments. The research design used in the present study resolves this problem by defining the sample (Moadon) population in terms of the population parameters obtained from the census study, thus eliminating the need to control for demographic variables hypothesized to correlate with criterion measures. Specifically, records from the census study provided the necessary information to define the parameters of the ex-mental patient population of Jerusalem. By analyzing these records and in some cases synthesizing information, it was possible to define the ex-mental patient population in

terms of sex, age at first admission, length of admissions, total time in hospital, length of time between admissions, diagnosis, ethnic background, number of admissions, and situation at referral.

These population parameters were then used as "baseline" measures in the description of the Moadon population. For example, if 10% of the Jerusalem mental patient population had more than three hospitalizations as compared to 80% of the Moadon population, it would be clear that in terms of chronicity, the Moadon falls at the high end of the continuum. In summary, instead of randomly selecting control groups out of a non-member sample or matching on a number of a priori variables (that are hypothesized to relate to rehabilitation success), it was possible to define the Moadon population by comparing it to almost all (85%) Jerusalem ex-mental patients discharged from a Jerusalem hospital within a five year period.

This approach provides an answer to the basic question as to the type of clients being treated. Specifically, it was possible to determine whether the Moadon is treating a cross section of the population (thus allowing generalizations to the entire population of ex-mental patients) or just a segment of it (in which case generalizations are

made only to mental patients with similar characteristics). Once this goal had been attained, the baseline measure approach was used as a basis for the evaluation of program effectiveness. This problem could be approached in a number of ways.

1. Comparing members to themselves -- If, for example, a client had been in the community two months out of thirty months before coming to the Moadon, this time period can serve as a baseline measure when attempting to determine the effect of participating in the Moadon on community tenure.

2. Comparing the Moadon with the census population -- For example, in the census, if 80% of the subjects with five hospitalizations are rehospitalized within a year, the Moadon clients with similar characteristics can be evaluated in contrast to this.

For the purposes of this study, alternative No. 1 was adopted. That is, the period of hospitalization prior to referral to the Moadon was used as a baseline which was compared to the length of hospitalization after referral. We are, therefore, talking about a before-after design (the baseline period prior to referral to the Moadon being considered the "before" period and a similar time period from date of referral being considered the "after" period)

with the clients serving as their own control group.

The results of such comparisons permit statements to be made about the effectiveness of a treatment for the Moadon population. This is the same goal that is attained through the use of inferential statistics with one basic difference -- with the use of the research design outlined above, we can also define the population that is being evaluated, thus eliminating problems of generalizability.

In summary, the availability of population parameters provides the researcher with the information necessary to define the population with which he is working, and with baseline measures to serve as a basis for program evaluation. Thus, the need for random selection and assignment is eliminated, since we can now specify the population for which a particular treatment is effective or ineffective.

Hypotheses

Comparison of Moadon and Census Population

If the Moadon population is representative of that segment of the ex-mental patient population characterized by its chronicity, then:

H1a -- The Moadon population will have a greater number of admissions than the Census population.

H1b -- The Moadon population will have spent a longer total time in mental institutions than the Census population.

H1c -- The Moadon population will have lengthier admissions than the Census population.

H1d -- The Moadon population will have been first admitted to a mental institution at an earlier age than the Census population.

H1e -- The Moadon population will have more diagnoses of schizophrenia than the Census population.

H1f -- The Moadon population will have spent less time in the community between admissions than the Census population.

H1g -- The Moadon population will have a higher percentage of males than the Census population.

H1h -- There will be no difference in the ethnic distribution of the Moadon and Census populations.

Community Tenure

If the Moadon Shalom program is successful in increasing community tenure, then:

H2a -- The number of Moadon members saving hospitalization time will exceed the number of Moadon members losing

hospitalization time after participation in the Moadon.

H2b -- Hospitalization time saved will exceed hospitalization time lost after participation in Moadon Shalom.

H2c -- Moadon members saving hospitalization time will not differ from Moadon members losing hospitalization time on relevant demographic variables.

Attendance in Moadon

H3 -- If attendance in the Moadon Shalom program is responsible for community tenure, then Moadon members with high attendance will save more hospitalization time than Moadon members with low attendance.

Contact

H4 -- If amount of contact in the Moadon is responsible for community tenure, then Moadon members with high contact ratings will save more hospitalization time than those members with low contact ratings.

Employment

H5 -- If the Moadon program is successful in preparing its clients for work roles, then the number of employed

clients (competitive and sheltered) will be greater after participation in the Moadon than before participation in the Moadon.

Community Involvement (Quantity of Social Interaction)

H6 -- If attendance in the Moadon Shalom is responsible for increased community involvement, then Moadon members with high attendance will have higher performance ratings than those clients with low attendance.

Quality of Social Interaction

H7 -- If attendance in the Moadon is responsible for improving quality of life in the community, then members with high attendance will have higher ratings on those items dealing with this variable than members with low attendance.

Analysis Procedures

Non-parametric statistics were used to analyze the data in this study because two of the basic conditions for the use of parametric statistics could not be met. Specifically, the variables of interest were not normally distributed among the population, since Moadon members were

chosen on the basis of their chronicity and maladaptive behavior patterns. Secondly, random sampling was not used since Moadon members served as the sample population. A final reason for the use of non-parametric statistics was that much of the data analyzed was measured on nominal and ordinal scales.

The specific tests used in this thesis were as follows:

1. McNemar test for the significance of changes in related samples (corrected for continuity). This test was used to analyze changes in vocational status in Moadon members after participation in the Moadon Shalom.

$$x^2 = \frac{(|A - D| - 1)^2}{A + D} \quad \text{with df} = 1$$

A	B
C	D

2. Wilcoxon matched pairs signed ranks test. This test is applicable when subjects serve as their own control groups and when differences observed for various matched pairs can be ranked. Specifically, Wilcoxon's matched pairs signed ranks test employs both the magnitude and the direction of the differences by ranking the absolute values of the differences and attaching to the ranks the signs of the original differences. This test was used to determine whether time in the community was greater for Moadon members

after they participated in the Moadon program as compared to before their participation.

$$Z = \frac{\min(T(+),T(-)) - \frac{n(n+1)}{4}}{\sqrt{\frac{1}{2}\text{-}1\left[n(n+1)(2n+1) - \frac{1}{2}\Sigma(t^3{}_i - t_i)\right]}}$$

3. Chi square test for independent samples -- This test is used when the researcher is interested in seeing whether two groups differ in terms of the relative frequency with which group members fall in several categories. Most of the hypotheses being tested in this thesis lent themselves to this type of analysis and the chi square test was used frequently throughout the study. The two basic forms of the chi square test used were as follows:

a. For 2x2 contingency tables

A	B
C	D

$$x^2 = \frac{N(|AD - BC| - \frac{N}{2})^2}{(A+B)\ (C+D)\ (A+C)\ (B+D)} \qquad df = 1$$

This formula is applied to 2x2 contingency tables since it concludes a correction for continuity, therefore improving the approximation of the distribution of the computed x^2 by the x^2 distribution.

b. For other contingency tables the following formula was used: $x^2 = \Sigma\Sigma \frac{(Oij - Eij)^2}{Eij}$

Oij--observed scores Eij--expected scores under Ho

Summary

In describing the design of the study, it has become apparent that this thesis is concerned with a number of new issues in the evaluation of psychiatric rehabilitation programs; for although most studies concerned with assessing the effectiveness of such programs have dealt with maintaining the ex-mental patient in the community (Weinman et al., '70; Sheldon, '64; Sheldon and Jones, '67; Tanaka, '65), they have not related to the following:

1. Determining the applicability of a program for a particular segment of the ex-mental patient population -- From the description of the treatment program in Chapter III, it was apparent that the Moadon Shalom is primarily interested in providing services for chronic, schizophrenic ex-patients in the Jerusalem mental patient population. By comparing the Moadon population to the Census population, it was possible to determine whether in fact the Moadon was treating a chronic population, therefore allowing generalizations regarding the success or lack of success of the treatment program to be made to this particular segment of the ex-mental patient population. In most studies where the definition of the treated population in terms of population parameters cannot be achieved, it is only possible to determine the success

of a program in general terms and not whether it is applicable for a particular type of client.

2. Using a period of time before referral as a baseline from which to measure community tenure. This procedure introduces a new concept in the evaluation of rehabilitation efforts and one which provides a more accurate assessment of success or failure in the program. Given the operational definition of community tenure that was developed in this chapter (percentage of hospitalization time saved since being referred to the Moadon), it is possible to measure client success in terms of his past psychiatric history, as opposed to measuring success only in terms of length of time in the community after referral. For example, a high gainer according to this definition may be a client who has spent less time outside of the hospital than another client, but in terms of his past hospital record has made a substantial gain. On the other hand, another client with relatively more months in the community may be considered a low gainer because he spent little time in the hospital before referral to the Moadon. Such an evaluation procedure thus provides a more realistic picture of a client's success or failure in the program, and also provides an opportunity to recognize improvement in chronic patients that would be ignored

using other evaluation procedures.

3. Assessing the quality of life as well as maintenance in the community. The focus of most rehabilitation evaluation studies has been on assessing success in terms of community tenure (Weinman et al., '70; Sheldon, '64; Sheldon and Jones, '67; Guy, Gross, Hogarty and Dennis, '69). The need also to evaluate the quality of life in the community is now being given more emphasis (Friedman, Von Mering and Hinko, '66; Vitale and Steinback, '65; Pasamanick et al., '67) and through the use of the social interaction questionnaire, it is now possible to evaluate community adjustment in terms other than community tenure.

In summary, the present chapter has fulfilled two primary functions: (a) describing the design of the study and (b) pointing out the new issues in the evaluation of psychiatric rehabilitation programs that are emphasized in this thesis.

CHAPTER V

DESCRIPTION OF THE MOADON (REHABILITATION CLUB) POPULATION

When evaluating the effectiveness of a treatment program, results are more meaningful when the population being treated can be defined. The availability of population parameters from the Census Study of the Jerusalem ex-mental patient population made it possible to compare the Moadon population with the general ex-mental patient population on a number of demographic variables. This information was invaluable, for it provided an opportunity to determine the type of clients being treated at the Moadon, as well as giving an indication of their rehabilitation potential. If, for example, the treated clients had spent little time in the hospital and had few rehospitalizations, criteria for success would differ greatly than if the clients were more chronic. Since the Moadon's policy was to recruit chronic patients unacceptable to traditional rehabilitation programs, it was hypothesized (hypotheses 1a-h) that the Moadon population would fall at the lower end of the continuum in terms of those variables related to chronicity and poor rehabilitation potential. Specifically, it was hypothesized that there would be differences between the Moadon and the Census populations on

variables a-g, and no difference on variable h. The hypotheses being tested and the analysis of the data related to these hypotheses are as follows:

If the Moadon population is representative of that segment of the ex-mental patient population characterized by its chronicity, then:

H1a--The Moadon population will have a greater number of admissions than the Census population.

H1b--The Moadon population will have spent a longer total time in mental institutions than the Census population.

H1c--The Moadon population will have lengthier admissions than the Census population.

H1d--The Moadon population will have been first admitted to a mental institution at an earlier age than the Census population.

H1e--The Moadon population will have more diagnoses of schizophrenia than the Census population.

H1f--The Moadon population will have spent less time in the community between admissions than the Census population.

H1g--The Moadon population will have a higher percentage of males than the Census population.

H1h--There will be no difference in the ethnic distribution of the Moadon and Census populations.

H1a--Number of admissions -- A significant difference at the .001 level (x^2=24.9) was found between the Moadon and Census population with regard to total number of admissions. Table 5.1 indicated that 16% of the Moadon population as compared with 35% of the Census population have had only one admission, whereas 41% of the Moadon as compared to 21% of the Census population have had more than five admissions. Since chronicity is defined in terms of this variable (Miller and Schwartz, '65; Bockoven et al., '56), the above results lend support to the hypothesis.

Table 5.1 -- The Moadon and Census populations compared in terms of total number of admissions

	1 admission	2-4 admissions	5+ admissions	
Moadon	16% 22	44% 60	41% 55	137
Census	35% 528	44% 681	21% 32	1529
	550	741	375	1666

x=24.9 df=2 p <.001

H1b--Total time in hospitals -- It was hypothesized that Moadon members will have spent a greater amount of time in mental instutitions than subjects in the Census population. Results (Table 5.2) indicate that:

1. 62% of the Census population as compared to 26% of the Moadon members have spent less than one year in the hospital.

2. 38% of the Census population and 74% of the Moadon population have been hospitalized for two years or more. A significant difference between the two populations was found at the .001 level (x^2=48.2), thus providing further support for the hypothesis.

Table 5.2 -- The Moadon and Census populations compared in terms of total time in hospital

	-2 years	+2 years	Total
Moadon	26% 39	74% 96	135
Census	62% 931	38% 566	1497
	970	662	1632

x^2=48.2 df=1 p $<$.001

H1c--Length of admissions -- The trend of short hospitalizations discussed in the review of the literature (Brown, Parkes and Wing, '59; Odegard, '61; Ratcliff, '64; Miller and Dawson, '68; Herjanic, Hales and Stewart, '69; Friedman, Von Mering and Hinko, '66) was also evident in the Census population in which the majority of patients were released within three months of being hospitalized (for all six admissions). Specifically, Table 5.3 shows that 68% of the Census population was released within the first three months on first admission, 69% on the second admission, 56% on the third admission, 58% on the fourth admission, 59% on the fifth admission and 59% on the

sixth admission. In the Moadon population, however, the percentage of those patients being released within three months was lower, (33% on the first admission; 46% on the second admission; 40% on the third admission; 44% on the fourth admission; 45% on the fifth admission; 42% on the sixth admission), the implications of which will now be discussed.

As can be seen in Table 5.3, Moadon members have lengthier hospitalizations than subjects in the Census Study, thus providing one more indication of greater chronicity in the Moadon population. However, Chi square tests were found to be significant on only the first four admissions. This apparent inconsistency can be accounted for by the fact that as admissions increase, the difference between the Moadon and Census populations decreases. For example, when talking about the length of the fifth admission, only those subjects hospitalized five times or more are considered, thus eliminating much of the non-chronic patients. It should also be noted that no trend exists toward longer or shorter hospitalizations with successive admission in either the Moadon or Census population, thus indicating that hospital release policies remain unchanged, even when treating chronic patients.

Table 5.3 -- The Moadon and Census populations compared in terms of length of admissions

	-3 months	4-12	12+		
	33%	43%	24%		
Moadon	44	56	31	131	1st admission
	68%	26%	6%		
Census	986	392	81	1459	
	1030	448	112	1590	

$x^2=78.3$ df=2 $p < .001$

	-3 months	4-12	12+		
	46%	26%	28%		
Moadon	52	29	31	112	2nd admission
	69%	20%	11%		
Census	562	164	85	811	
	614	193	116	923	

$x^2=24.5$ df=2 $p < .001$

	-3 months	4-12	12+		
	40%	40%	21%		
Moadon	38	37	20	95	3rd admission
	56%	26%	18%		
Census	376	173	118	667	
	414	210	138	762	

$x^2=9.26$ df=2 $p < .01$

	-3 months	4-12	12+		
	44%	38%	18%		
Moadon	29	25	12	66	4th admission
	58%	24%	18%		
Census	264	109	79	452	
	293	134	91	518	

$x^2=6.25$ df=2 $p < .05$

Table 5.3 (Cont'd.)

	-3 months	4-12	12+	
	45%	24%	31%	
Moadon	25	13	17	55
	59%	24%	17%	
Census	186	74	54	314
	211	87	71	369

5th admission

$x^2=5.23$ df=2 p < NS

	-3 months	4-12	12+	
	42%	39%	19%	
Moadon	15	14	7	36
	59%	22%	19%	
Census	124	47	39	210
	139	61	46	246

6th admission

$x^2=5.71$ df=2 p < NS

Hld--Age at first admission -- Age at first psychiatric contact has been shown to be predictive of readmission rates (Rosen, '68), thus demonstrating its relevance in the description of a chronic population. Table 5.4 indicates that 39% of the Moadon population was first admitted to a mental hospital before the age of 22 as compared to only 23% in the Census study, while 77% in the Census as compared to 61% in the Moadon population were admitted after the age of 22. A Chi square test was found to be significant at the .001 level ($\chi^2=15.5$), further demonstrating the chronicity

of the Moadon population.

Table 5.4 -- The Moadon and Census populations compared in terms of age at first admission

	Less than 22 years old	More than 22 years old	
Moadon	39% 52	61% 82	134
Census	23% 350	77% 1164	1514

x^2=15.5 df=1 p <.001

Hle--Diagnosis -- Table 5.5 indicates that 75% of the Moadon population as compared to 53% of the Census population had been diagnosed as shcizophrenic. A Chi square test was found to be significant at the .001 level (x^2=14.94) thus revealing another difference between the two populations, and helping to substantiate the hypothesis that the Moadon is treating a population comprised mainly of chronic schizophrenic clients.

Table 5.5 -- The Moadon and Census populations compared in terms of diagnosis

	Schizophrenia	Affective disorders	Other	
Moadon	75% 104	8% 11	17% 33	148
Census	53% 688	19% 253	28% 331	1272
	792	264	364	1420

x^2=14.94 df=2 p <.01

H1f-- Length between admissions -- Data from other studies (Ratcliff, '64; Miller and Dawson, '68; Herjanic, Hales, and Stewart, '68; Friedman, Von Mering and Hinko, '61; Fairweather and Simon, '60 and '63; Miller, '65; Rajotte and Denber, '61) indicate short community tenure after release from mental institutions. Readmission rates in both the Census and Moadon populations are consistent with the findings in the literature (Table 5.6), thus demonstrating that the trend of a high percentage of readmissions within a short time of release is an international phenomenon.

Table 5.6 -- Comparison of readmission rates in the Moadon population, Census population and the literature

	Moadon	Census	Literature
Percentage of readmissions within six months	32%	27%	33% (Friedman, Von Mering, Hinko, '61
Percentage of readmissions within one year	39%	39%	40% (Miller and Dawson, '68)

Although no differences were found between the Moadon and Census populations with regard to length between admissions for those patients who were eventually rehospitalized (Table 5.7), a consistent difference can be seen in the number of patients not being readmitted after each release (Table 5.8). For example, 16% of the Moadon population were not readmitted after their first hospitalization as compared to 35% of the

Census population. This trend continues through the sixth admission where 68% of the Moadon and 80% of the Census population did not have a sixth admission. It was originally hypothesized that Moadon clients would be rehospitalized sooner than the Census Study population. This hypothesis is not supported by the data (Table 5.8) since the length of community tenure is similar for both populations. However, a significantly higher proportion of the Census population remained in the community permanently after each successive admission, thus indicating that the percentage of patients requiring readmission is a better indicator of commmunity adjustment difficulties for a given population than the length of time between admissions.

Table 5.7 -- Comparison of the Moadon and Census populations in terms of time between admissions

	-3 months	4-12	12+	
Moadon	29% 33	29% 34	42% 45	112
Census	28% 278	39% 370	33% 305	963
	311	354	410	1075

1st and 2nd
$x^2 = .42$
df=2
p < not significant

	-3 months	4-12	12+	
Moadon	39% 36	38% 28	23% 21	85
Census	32% 219	45% 240	23% 199	658
	255	268	220	743

2nd and 3rd
$x^2 = 3.04$
df=2
p < not significant

Table 5.7 (Cont'd.)

	-3 months	4-12	12+	
	45%	34%	24%	
Moadon	32	22	12	66
	36%	35%	29%	
Census	166	159	115	440
	198	181	127	506

3rd and 4th
$x^2=2.85$
df=2
p < not significant

	-3 months	4-12	12+	
	45%	34%	21%	
Moadon	26	20	8	54
	40%	40%	20%	
Census	122	122	65	309
	148	142	73	363

4th and 5th
$x^2=1.81$
df=2
p<not significant

	-3 months	4-12	12+	
	40%	50%	10%	
Moadon	14	18	4	36
	37%	43%	20%	
Census	77	87	40	204
	91	105	44	240

5th and 6th
$x^2=.30$
df=2
p < not significant

Table 5.8 -- Comparison of the Moadon and Census populations in terms of the percentage of patients not requiring readmissions

	No 2nd Admission	No 3rd Admission	No 4th Admission	No 5th Admission	No 6th Admission
	16%	32%	47%	58%	68%
Moadon	22	43	65	79	93
	35%	56%	71%	79%	80%
Census	530	853	1071	1209	1212

In addition, the increasing percentage of people that return to the hospital within one year (67% after the first admission - 80% after the fifth admission in the Census study; and 58% after the first admission - 90% after the fifth admission in the Moadon population) points to the increasingly difficult task of remaining in the community as the number of hospitalizations increase. Although these data do not indicate the source of difficulty in the community adjustment of the ex-mental patient, they do lead to one obvious conclusion -- effective intervention in the community is needed, and the earlier this intervention occurs, the greater is the chance of preventing further rehospitalizations. The need for early intervention is supported by another set of data as well -- the percentage of clients remaining out of the hospital for more than six months after one admission who remained out of the hospital for less than six months after the following admission (only considering those clients readmitted). Specifically, the results (Table 5.9) show that the majority of those patients who stayed out of the hospital six months or more after one admission, remained in the community six months or less after their next admission.

Table 5.9 -- Percentage of Moadon clients remaining in the community for less than six months who, after their preceding admission, had remained in the community for more than six months

Percentage of Moadon clients remaining in the community for six months or more after their first admission, who remained in the community for less than six months after their second admission	51%
+6 after second admission -6 after third admission	78%
+6 after third admission -6 after fourth admission	65%

Analysis of data concerning the fifth and sixth admissions could not be made because of the samll number of clients hospitalized for six months or more (i.e., for fifth admission N=12). However, for the data that were sufficient, if can be concluded that since community tenure decreases from one admission to the next, early intervention in the community is of great importance.

Hlg -- Sex -- It was hypothesized that there would be a higher percentage of males in the Moadon population than in the Census population, based on the assumption that it was relatively easier for a woman to resume her role in the community than a man. The Census Study (data on present status and sex -- Table 5.10) shows that 59% of the Census population hospitalized at the time of the study were male, while only 51% of

the total population was male. In addition, Halevy's study of Israel's mental institutions shows 53% male and 47% female as compared to 51% male and 49% female in the discharged population, thus indicating that men in general have difficulties in community adaptation. This difficulty in community adaptation among males was found to be even more prevelant in the Moadon population in which 68% of the population are male and 32% female. A significant difference (x^2=14.3) was found at the .001 level between the Moadon and Census population on this characteristic (Table 5.11), providing additional support for the hypothesis.

Table 5.10 -- Percentage of makes and females in the hospital at time of the census study in relationship to the proportion of males and females in the total mental patient population

	Male	Female
In Hospital	59%	41%
Percentage of Total Population	51%	49%

Table 5.11 -- The Moadon and Census populations compared in terms of sex

	Male	Female	
Moadon	68% 102	32% 48	150
Census	51% 771	49% 742	1513
	873	790	1663

x^2=14.3 df=2 p <.001

H1h--Country of birth -- Table 5.12 reveals a similarity in ethnic distribution between the Moadon and Census populations. No differences were expected on this variable since chronicity is not considered to be common to any particular ethnic group. The one difference that did appear is on the native born population where 39% of the Moadon and 29% of the Census population were born in Israel, thus reflecting the fact that the Moadon's rehabilitation program is geared to a younger population.

Table 5.12 -- Moadon and Census populations compared in terms of country of birth

	Western Europe	Eastern Europe	Central Europe	Southern Europe	English Speaking Countries
Moadon	3% 4	13% 19	6% 9	1% 2	1% 2
Census	2% 23	16% 208	7% 90	2% 28	3% 37

	South America	North Africa	Middle East	Israel	No Information	Total
Moadon	1% 2	16% 24	19% 28	39% 57	3	150
Census	1% 10	20% 255	21% 27	29% 373	0	1294

Summary

The above comparison has demonstrated that the Moadon population differs from the general mental patient population on a number of demographic variables that are hypothesized to

relate to chronicity. Specifically:

1. First admissions to a mental institution occurred at a younger age among Moadon members.

2. Moadon members have had more readmissions than the Census population.

3. Total time spent in mental institutions was greater among Moadon members.

4. Moadon members were hospitalized longer during their first four admissions.

(The lack of significance on the fifth and sixth admissions was attributed to the fact that two relatively homogeneous populations, both having a high number of admissions, were being compared).

5. There was a higher percentage of male members in the Moadon population.

6. More Moadon members were diagnosed as being schizophrenic.

7. Fewer Moadon than Census subjects remained permanently in the community after each successive admission.

Similarities between the two populations were found on the following variables:

1. Ethnic distribution

2. Length of time between hospitalizations for those who were eventually rehospitalized.

It can be seen from the above comparisons that the Moadon is not working with a cross-section of the mental patient population, but rather a chronic population that is characterized by an inability to adjust to life outside of a hospital. On a continuum ranging from good-poor rehabilitation potential, Moadon clients would be ranked at the lower end of the scale, and the expectations for their rehabilitation success would not be great. This conclusion is based on the hospitalization history of the Moadon population in comparison with that of the general ex-patient population, and is substantiated by an additional fact: the high percentage of Moadon clients whose community tenure decreased from one discharge to the next. Since a basic criteria for successful rehabilitation in this thesis and in general is increase in community tenure, it is apparent that Moadon clients demonstrate poor rehabilitation potential, both in terms of their own background and in comparison with the general ex-patient population. In addition, the value of the preceding comparisons is twofold:

1. Given the nature of the Moadon population, a basis is provided for the development of realistic expectations for success in the Moadon program. Specifically, since the Moadon population is characterized by a higher number of readmissions, lengthy hospitalizations and other characteristics

related to chronicity, expectations for success cannot be similar to those for less chronic patients. Rather, gains by a particular member must be viewed in the light of his past hospitalization history, if a realistic picture of his success is to be obtained.

2. By describing the Moadon population in terms of a number of demographic variables related to chronicity, the group to which treatment effects can be attributed has been defined.

CHAPTER VI

RESULTS AND ANALYSIS

The purpose of this chapter is to present the data emanating from the research hypotheses stated in Chapter IV. The data is divided into the following three areas:

1. Data relating to community tenure
2. Data relating to community involvement (quantity of social interaction)
3. Data relating to quality of life in the community.

To determine whether Moadon clients increased their community tenure after being referred to the Moadon was of primary importance in this study. It was thus hypothesized that if the Moadon was successful in attaining its goals, more Moadon members would save rather than lose hospitalization time (H3a), and that the amount of hospitalization time saved would exceed that of hospitalization time lost (H3b). In addition, it was important to explore the possibility that hospitalization time gained by Moadon members was

related to their greater rehabilitation potential (as defined by more healthy ratings in terms of those demographic variables related to chronicity) rather than to their participation in the Moadon program (H3c).

Hypotheses 4 and 5 were also concerned with identifying those factors related to successful rehabilitation. Since a major goal of the study was to determine the effectiveness of the Moadon in rehabilitating ex-mental patients, it was hypothesized that participation in the Moadon (as defined by the amount of attendance and contact) would be related to rehabilitation success. Hopefully, in addition to increasing community tenure, participation in the Moadon was also seen as playing an important role in the community adjustment of its clients. It was thus hypothesized that participation in the Moadon would be related to improvement in work status (H6), increased community involvement (H7), and improved quality of life in the community (H8).

The data and its analysis are as follows:

Community Tenure

H2a -- If the Moadon program is successful in in creasing community tenure, then the number of Moadon members

saving hospitalization time will exceed the number of Moadon members losing hospitalization time after participation in the Moadon.

Data relating to the number of active clients saving and losing hospitalization time and the percentage of the time saved or lost are represented by Table 6.1.

Table 6.1 -- Number and percentage of active clients saving and losing hospitalization time

		N	N	%
GAINERS	1-24%	9	72	73%
	25-49%	11		
	50-74%	14		
	75-100%	38		
LOSERS	1-24%	6	20	27%
	25-49%	7		
	50-74%	3		
	75-100%	4		
Neither saving or losing time			6	
In community for entire period			35	
In hospital for entire period			17	

The data reveal that among those clients who were neither hospitalized for the entire period or in the community for the entire period, 73% saved hospitalization time. With

regard to the percentage of hospitalization time saved, it should be restated that these figures are based on the formula developed in Chapter IV:

$$1 - \frac{\text{Time hospitalized after referral}}{\text{Time hospitalized before referral}}$$

As was emphasized in the discussion relating to the development of this formula, using the amount of time hospitalized before referral as a baseline measure and comparing it with the amount of time hospitalized after referral, provides a more meaningful measure of community tenure than merely counting the number of months in the community since discharge. What is especially revealing about these data is that 38 out of 72 (53%) clients who saved hospitalization time increased their community tenure by more than 75%.

H2b -- If the Moadon is successful in increasing community tenure, then hospitalization time saved will exceed hospitalization time lost after participation in Moadon Shalom.

Time gained -- 523 months

Time lost -- 72 months

Total time gained -- 451 months

These data are also based on the comparison of baseline information with the amount of time hospitalized after

referral to the Moadon. For example, if one was hospitalized for six months of the 18 months that he participated in the Moadon and 12 out of the 18 months prior to being referred to the Moadon, a gain of six months was recorded. To examine this hypothesis more closely, baseline and post-treatment data were compared using the Wilcoxon matched-pairs test. After correcting for tied observations, a z score of 5.75 was obtained, which is significant at the .001 level. The conclusion can thus be reached that participation in the Moadon is related to an increase in community tenure among program participants.

Summary

The following can be summarized from the data emanating from hypotheses H1a and H1b:

1. Considerably more hospitalization time was gained than lost by active participants.

2. Considerably more clients saved hospitalization time than lost hospitalization time.

3. Among those who saved hospitalization time, more than one half of the clients increased their community tenure by more than 75%.

Although these data are only gross indicators of program success, they do demonstrate that a great majority of

active Moadon participants saved a significant amount of hospitalization time after participating in the Moadon. The question still remains as to what conclusions can be drawn from these data. As was pointed out in the comparison of the Moadon and Census populations, Moadon clients were shown to have poor rehabilitation potential in terms of their own background and in comparison with the general ex-patient population. On the basis of this data, it can be concluded safely that the increase in community tenure was above and beyond the expectations that would be held for a population of this nature.

H2c -- If the Moadon program is successful in increasing community tenure, then Moadon members saving hospitalization time will not differ from Moadon members losing hospitalization time on relevant demographic variables.

The above hypothesis is based on the assumption that successful community tenure (percentage of hospital time saved) is a function of participation and/or program effectiveness rather than pre-existing differences between successful and unsuccessful clients on the demographic variables being considered. Results (Tables 6.2-6.10) indicate that there are no significant differences between the groups on any of the demographic variables, thus demonstrating that less chronic patients are not necessarily those who are successful. The question must now be asked as to whether these findings are unique to the

Moadon population or whether they are also substantiated in the literature.

Analysis of this question leads to the conclusion that the demographic variables being considered do in fact differentiate between successful and unsuccessful community adjustment (in most studies success and failure are defined in terms of frequency of hospitalization). Various studies have shown that total time in hospitals (Michaux et al. '69), age at first admission (Rosen et al. '68), number of admissions (Bockoven et al. '56; Miller and Schwartz, '65; Linn, '64; Lorei, '64; Pishkin and Bradshaw, '66 and Robbins, '55), length of admissions (Freeman and Simmons, '63; Lorei, '64; Pishkin and Bradshaw, '66; Robbins, '65), and diagnosis (Michaux et al. '69) are all related to community tenure. Results of the present study contradict those found in the literature, thus providing further proof that successful participants in the Moadon program are not those who are less chronic.

Table 6.2 -- Comparison of active clients saving and losing hospital time in terms of total time in the hospital

	-2 years	2 years +		
Gain	34	37	71	$x^2=1.17$
Loss	15	11	26	df=1
	49	48	97	p <NS

Table 6.3 -- Comparison of active clients saving and losing hospitalization time in terms of age at first admission

	-22	22+	
Gain	30	41	71
Loss	9	17	26
	39	58	97

x^2=.19
df=1
p < NS

Table 6.4 -- Comparison of active clients saving and losing hospitalization time in terms of number of admissions

	1-2	3+	
Gain	27	44	71
Loss	4	22	26
	31	66	97

x^2=3.50
df=1
p < NS

Table 6.5 -- Comparison of active clients saving and losing hospitalization time in terms of length of first hospitalization

	-6 months	6 months +	
Gain	42	28	70
Loss	14	12	26
	56	40	96

x^2=.09
df=1
p < NS

Table 6.6 -- Comparison of active clients saving and losing hospitalization time in terms of length of second hospitalization

	-6 months	6 months +	
Gain	43	16	59
Loss	17	8	25
	60	24	84

x^2=.27
df=1
p < NS

Table 6.7 -- Comparison of active clients saving and losing hospitalization time in terms of diagnosis

	Schiz.	Other	
Gain	54	17	71
Loss	22	4	26
	76	21	97

x^2=.39
df=1
p < NS

Table 6.8 -- Comparison of active clients saving and losing hospitalization time in terms of work at referral

	Work	No Work*	
Gain	20	51	71
Loss	4	21	25
	24	72	96

x^2=.88
df=1
p < NS

*includes sheltered employment

Table 6.9 -- Comparison of active clients saving and losing hospitalization time in terms of sex

	Male	Female	
Gain	36	36	72
Loss	14	12	26
	50	48	98

$x^2 = .09$
df=1
p < NS

Table 6.10 -- Comparison of active clients saving and losing hospitalization time in terms of living arrangements

	With Others	Alone	
Gain	36	36	72
Loss	14	12	26
	50	48	98

$x^2 = .01$
df=1
p < NS

Table 6.11 -- Comparison of active clients saving and losing hospitalization time in terms of marital status

	Married	Other	
Gain	8	64	72
Loss	2	23	25
	10	87	97

$x^2 = .18$
df=1
p < NS

The above data also show no significant differences between successful and non-successful clients in terms of marital status. In the literature, however, marital status is shown to be related to rehabilitation success with married ex-patients functioning on a higher level than unmarried ex-patients (Davis, Freeman and Simmons, '58; Dinitz et al. '61, Freeman and Simmons, '63 and Schooler et al. '67). Data in this study again contradict the literature and show that successful and non-successful participants in the Moadon cannot be differentiated in terms of this variable.

It would also be logical to assume that those who lived with others would remain in the community longer than those who

lived alone because of the greater potential for support and interaction in this type of setting. This assumption is supported in the literature by articles linking high readmission rates with loneliness and social isolation (Raskin and Dyson, '68; Miller and Schwartz, '65; Dudgeon, '64). The data in this study (Table 6.10) show that there was no significant difference between successful and unsuccessful clients in terms of this variable, thus eliminating living situation as a factor related to success in the Moadon program.

Sex is another variable that has not been mentioned. It has been shown to be a poor predictor of community tenure in the literature (Linn, '64; Tanaka, '65) and also did not discriminate between successful and unsuccessful clients in this study.

A final variable that would be expected to discriminate between successful and unsuccessful clients is work status at referral. It would seem likely that these clients who were successfully employed would have a better chance of remaining in the community than those without employment. This assumption is supported in the literature (Linn, '64; Lorei, '64; Brown, Corstairs and Topping, '58; Vitale and Steinbach, '65) where it is found that employed ex-mental patients do in fact remain in the community longer. However, it can be seen from

Table 6.8 that work at referral is not related to the community tenure of Moadon clients.

The purpose of the above analysis was to demonstrate that increased community tenure was not related to a greater rehabilitation potential as defined by demographic variables related to community tenure. Since there were no differences between successful and unsuccessful clients on these variables, it can be concluded that successful Moadon clients were not merely those who had a greater potential to succeed.

H3 -- If attendance in the Moadon Shalom is responsible for community tenure, then Moadon members with high attendance will save more hospitalization time than Moadon members with low attendance.

Hypothesis 4 examines the relationship between attendance and success in the Moadon program. The findings (Table 6.12) indicate that there is not a significant relationship between these two variables. The question thus arises as to the value of attendance in the Moadon, since apparently those clients with low attendance are as successful as those with high attendance. To investigate this issue further, the successful high and low attenders were compared on a number of demographic variables related to chronicity. Results of these comparisons are contained in Tables 6.13-6.22.

Table 6.12 -- Comparison of active clients saving and losing hospitalization time in terms of attendance

Percentage of hospitalization time saved		Hi (50+)	Lo(0-50)	
	Gain	40	32	72
	* Loss	18	8	26
		58	40	98

$x^2=1.42$
df=1
p < NS

*Loss includes those who neither saved or lost hospitalization time.

Table 6.13 -- Comparison of gainers with high attendance and low attendance in terms of number of admissions

	1-2 admissions	3+ admissions	
*1	A 11	B 28	39
*2	C 16	D 16	32
	27	44	71

$x^2=2.67$
df=1
p < NS

*1 = Gainers with high attendance
*2 = Gainers with low attendance

Table 6.14 -- Comparison of gainers with high attendance and low attendance in terms of total time in hospital

	-1 year	1 year+	
1	13	26	39
2	21	11	32
	34	37	71

$x^2=6.10$
df=1
p < .01

Table 6.15 -- Comparison of gainers with high attendance and low attendance in terms of age at first admission

	-22	22+	
1	17	22	39
2	13	19	32
	30	41	71

$x^2=.0001$
df=1
p < NS

Table 6.16 -- Comparison of gainers with high attendance and low attendance in terms of living arrangements

	Alone	With Others	
1	24	16	40
2	21	11	32
	45	27	72

$x^2=.06$
df=1
p < NS

Table 6.17 -- Comparison of gainers with high attendance and low attendance in terms of marital status

	Married	Not Married	
1	2	38	40
2	6	26	32
	8	64	72

$x^2=3.16$
df=1
$p < .10$

Table 6.18 -- Comparison of gainers with high attendance and low attendance in terms of sex

	Male	Female	
1	24	16	40
2	16	16	32
	40	32	72

$x^2=.37$
df=1
p < NS

Table 6.19 -- Comparison of gainers with high attendance and low attendance in terms of situation at referral

	In	Out	
1	20	20	40
2	16	16	32
	34	34	72

$x^2=.000$
df=1
p < NS

Table 6.20 -- Comparison of gainers with high attendance and low attendance in terms of diagnosis

	Schiz.	Others	
1	32	7	39
2	22	10	32
	54	17	71

$x^2=1.05$
df=1
p < NS

Table 6.21 -- Comparison of gainers with high attendance and low attendance in terms of length of first admission

	-6 months	6 months+	
1	18	20	38
2	23	9	32
	41	29	70

$x^2=3.34$
df=1
$p < .10$

Table 6.22 -- Comparison of gainers with high attendance and low attendance in terms of length of second admission

	-6 months	6 months+	
1	22	11	33
2	21	5	26
	43	16	59

$x^2=.83$
df=1
p < NS

Table 6.23 -- Comparison of gainers with high attendance and low attendance in terms of length of third admission

	-6 months	6 months+	
1	23	5	28
2	8	8	16
	31	13	44

$x^2=3.63$
df=1
$p < .10$

Table 6.24 -- Comparison of gainers with high attendance and low attendance in terms of work at referral

	Work	No Work	
1	7	33	40
2	13	18	31
	20	51	71

$x^2=4.01$
df=1
$p < .05$

On the demographic variables being considered, there were significant relationships between total time of hospital and attendance ($p < .05$), work at referral and attendance ($p < .05$), length of length of first admission and attendance ($p < .10$)[1], length of third admission and attendance ($p < .10$), and marital status and attendance ($p < .10$). Specifically, successful high attenders have spent more time in mental institutions than successful low attenders, have had lengthier first and third admissions than low attenders, were less frequently employed than low attenders, and were less frequently married

[1]Although under ordinary circumstances, relationships at the .10 level are not considered significant, they are seen as being relevant in this context for the following reason. The population which is being considered has already been defined as being highly chronic in comparison with the general mental patient population. We are, therefore, analyzing data from a homogeneous population with a narrow range on most variables. When working with such a population, relationships significant at the .10 level have greater meaning than when talking about a more heterogeneous population, thus justifying their includsion in the discussion of significant results.

than low attenders.

Although significant relationships were not found on all of the above variables, a definite trend can be seen: that high attenders appear to be the more chronic members of a population already defined as being chronic. A significant relationship can thus be seen between attendance on the part of the more chronic segment of the Moadon population and success, whereas success on the part of the low attenders can be attributed to factors such as better employment records and less time spent in hospitals. In general, what appears to be operating is a self-selection process in which the less chronic clients do not choose to participate in the Moadon program as much as the more chronic clients. Another possibility is that the less chronic patients simply do not need as much treatment as their more chronic counterparts in order to increase their community tenure.

Finally, the possibility exists that a greater staff effort is being extended to the more chronic members of the Moadon, a theory that will be examined in Hypothesis 4. In any case, it is apparent that given any of the above explanations, the Moadon is attaining its goal of successfully working with those clients at the negative end of the continuum in terms of chronicity and rehabilitation potential.

H4 -- If amount of contact in the Moadon program is responsible for community tenure, then Moadon members with high contact ratings will save more hospitalization time than those members with low contact ratings.

Table 6.25 indicates there is not a significant difference netween amount of contact and success in the Moadon program. Further analysis, however, lends support to the previously stated results regarding the type of client that is being treated intensively in the Moadon. Table 6.26 demonstrates that a significant relationship exists between attendance (among successful clients) and contact. Specifically, high attenders have a significantly higher contact rating than low attenders, thus indicating that not only do chronic clients participate more, but there is also more direct intervention on the part of the staff to involve them in the program and to aid them in other aspects of community adjustment.

Table 6.25 -- Comparison of clients saving and losing hospital time in terms of contact

	1-10 contacts	10-30	30+	
Gain	24	19	19	62
Loss	12	3	12	37
	36	22	31	99

$x^2=5.5$
df=2
p <NS

Table 6.26 -- Gainers with low attendance and gainers with high attendance compared in terms of contact

	1-10 contacts	10-30	30+	
Gain-- low attend.	17	5	3	25
Gain-- high attend.	8	14	15	37
	25	19	18	62

$x^2=13.47$
df=2
$p < .01$

From the data relating to contact and attendance, it is apparent that in the Moadon program the more chronic clients are receiving more treatment in comparison to the "healthier" clients. This points to a major difference between the Moadon and many mental institutions; for in most mental hospitals less effort is expended for the chronic patients sitting in the back wards, and greater effort is given to short term patients with greater rehabilitation potential.

Community Adjustment

The criteria for successful rehabilitation defined in Chapter I include both maintenance of the ex-patient in the community and community adjustment as measured by the quantity and quality of social interaction. The preceding discussion focused on the relationship between participation in the Moadon and community tenure, and the purpose of this section

will be to present the data concerning community adjustment. As was pointed out in the discussion of Procedure (Chapter IV), the Social Interaction Questionnaire could be administered only to 69 of the 150 active clients. The question thus arises as to whether this group is a representative sample of the active Moadon population.

In order to determine if the same is representative, the participating and non-participating clients were compared on the following variables: total number of admissions, total time in hospital, age at first admission, diagnosis, in-out of hospital at referral, sex, living arrangements, work at referral, marital status, length of first admission, length of second admission, length of third admission, length of fourth admission, length of fifth admission, length of sixth admission, age, community tenure, attendance, length between first and second admissions, length between second and third admissions, length between third and fourth admissions, length between fourth and fifth admissions, length between fifth and sixth admissions. Results of these comparisons (Appendix C) indicate that the only difference between the two groups was in attendance. An explanation for this finding is that the social interaction questionnaire was administered to those clients who were easily accessible, or in other words, those

clients who frequently attended the Moadon program. What is important, however, is that on the background variables being considered and particularly those related to chronicity, there is no difference between the two groups. It can, therefore, be concluded that the population being evaluated in terms of community adjustment is a representative sample of the active Moadon population, thus allowing generalizations to be made to the entire active population.

Quantity of Social Interaction --the performance of living tasks related to community adjustment (living arrangements, work, household duties, self-care and social).

Vocational Functioning

Of particular importance in the evaluation of a rehabilitation program is the determination of whether a relationship exists between program participation and change in vocational functioning. The following hypothesis is concerned with this issue.

H5--If the Moadon program is successful in preparing its clients for work roles, the number of employed clients (competitive and sheltered) will be greater after participation in the Moadon than before participation in the Moadon.

Table 6.27 indicates that the number of clients employed in either competitive or sheltered settings increased significantly after participating in the Moadon, thus supporting the hypothesis.

Table 6.27 -- Work status of Moadon clients before and after participation in the Moadon

		After			
		Work	No Work		
Before	No Work	36	50	86	$x^2=22.2$
	Work	36	5	41	df=1
		72	55	127	$p < .001$

An additional analysis comparing successful high and low attenders was attempted, but not successfully carried out, because there was only information on 15 of the 32 low attenders. For the high attenders, however, there were data on 37 out of 40 clients. The data relating to high attenders are as follows:

Situation at time of referral	Situation after participation	N
No work	No work	7
Irregular work	Irregular work	2
Sheltered employment	Sheltered employment	1
No work	Sheltered employment	13
No work	Vocational training	1
Competitive employment	Competitive employment	5
No work	Competitive employment	8
		37

Final Results

Number competitively employed = 13

Number employed in sheltered settings = 14

Number unemployed (including irregular work) = 9

Number in training = 1

Table 6.28 -- Work status of Moadon clients before and after participation in the Moadon (for high attenders)

		After		
		No Work	Work	
Before	Work	0	6	$x^2=19$
	No Work	9	21	df=1
		9	27	$p < .001$

Vocational rehabilitation is usually considered to be the last stage of the rehabilitation process. The fact that 61% of the active population was involved in some type of work activity after participation as compared to only 31% before referral is indicative of the progress being made by many of the Moadon clients. It is also interesting to observe that among the high attenders who increased their community tenure, a significant proportion of them were employed in either a sheltered or competitive setting after participating in the Moadon (Table 6.28), thus demonstrating

the relationship between participation in the Moadon and improved vocational functioning.

Performance of Other Living Tasks

Originally, the intent of this section had been twofold: (a) to see whether those clients who increased their community tenure were high functioners on the various living tasks; and (b) to see whether there was a relationship between attendance in the Moadon program and performance of the living tasks. Since only eight clients who lost hospitalization time completed the questionnaire, a comparison of those clients who increased and decreased their community tenure was not feasible. It was possible, however, to analyze the relationship between attendance and level of functioning of the living tasks.

H6 --If attendance in the Moadon Shalom is responsible for increased community involvement, then Moadon members with high attendance will have higher performance ratings than those clients with low attendance.

As was described in the discussion of dependent variables, the procedure used for determining the level of functioning for an individual was to compare his present level of functioning with a baseline defined as his best period of functioning since the age of twenty. A scoring scale (Appendix A)

was then developed that took into consideration present and past levels of functioning, as well as the discrepancy between the two periods.

The specific living tasks evaluated in the data to be presented are as follows: household duties, personal grooming, entertainment, visiting outside of the home, and entertaining at home. (The specific items used in this analysis are found in Appendix B). Work, another of the living tasks evaluated, was considered independently in the previous section. The living tasks not being considered, but which were included in the mapping sentence (Figure 4.1) are as follows: living arrangements and self care (medication and therapeutic visits). In general, we were concerned about those living tasks which might be affected by participation in the Moadon. Although suitable living arrangements are important in one's community adjustment, attendance in the moadon was not seen as being instrumental in determining the type or quality of living arrangements, and thus not included in the evaluation. arrangements, and was thus not included in the evaluation. The same is true of therapeutic visits since contact with a social worker, psychiatrist, or psychologist not on the Moadon staff is independent of participation in the Moadon program. Other reasons for eliminating items were lack of response and lack of item discrimination. On the medication question, for example, only about 20% of the respondants were

taking medication during their period of best functioning as compared with approximately 80% at present. It was thus difficult to determine whether clients are more responsible about their medication now as compared to then, since there was no opportunity for comparison for the majority of clients.

Before presenting the data relating to the hypothesis, one more basic question should be answered -- that is, whether one's best period since the age of twenty was really a good period, or whether it was difficult for the subjects to differentiate between good and bad periods in their lives. The answer to this question is found in a questionnaire item asking subjects the extent to which they were happy during this period -- 11 were happy to a very great extent, 20 to a great extent, and 9 to a small extent. None of the subjects indicated that they were unhappy during this period, thus providing evidence that the subjects were in fact comparing their present functioning with a period in which all of them were happy in varying degrees.

The data relating to Hypothesis 6 are found in Table 6.29.

Table 6.29 -- Relationship between attendance and quantity of social interaction[1]

	High (18+)	Medium (14-18)	Low (-14)	
High Attendance	7	17	10	34
Low Attendance	1	4	11	16
	8	21	21	50

$x^2=7.10$ df=2 $p < .05$

The results of these data indicate there was a realtionship between attendance in the Moadon and one's level of functioning on the living tasks. Specifically, high attendance was found to be related to increased community involvement among Moadon members, irrespective of the amount of hospitalization time saved or lost.

These results become more meaningful when they are analyzed in light of the chronicity of the Moadon population. After numerous hospitalizations and success with shorter periods in the community, one would expect Moadon members to be living a marginal existence in the community (Miller and Schwartz, '65; Bockoven et al., '56) therefore leading to a large discrepancy between past and present functioning. The fact that more than half of the clients indicated they were functioning on the same level of even a higher level than they did during their best period, is thus an unexpected

[1] Rationale for scoring scale can be found in Appendix A.

finding and provides further support for the effectiveness of the Moadon program.

Quality of Social Interaction

H7--If attendance in the Moadon is responsible for improving quality of life in the community, then members with high attendance will have higher ratings on those items dealing with this variable than members with low attendance.

When referring to the quality of social interaction, we were concerned with facet G (purpose) in the mapping sentence (Figure 4.1) -- how the person interacts for the purpose of happiness, support, and obligations. As in the measurement of the quantity of social interaction, a client's present level of functioning was compared with his best period of functioning since the age of twenty and a scale was developed that took into consideration present and past level of functioning and the discrepancy between the two periods.[1]

The living tasks included in this evaluation were household duties, grooming and entertainment. The other living tasks were eliminated for the following reasons: (a) living arrangements, self-care (therapeutic visits) -- not relevant for the reasons described in the previous section, (b) work,

[1]An explanation for the scoring scale can be found in Appendix A.

visiting -- insufficient N. (c) self-care (medication) -- poor item discrimination.

The data relating to Hypothesis 7 are found in Table 6.30.

Table 6.30 -- Relationship between attendance and quality of life in the community

	8+ High	-8 Low	
High Attendance	18	10	28
Low Attendance	3	11	14
	21	21	42

$x^2=5.25$ df=1 $p < .05$

Although limited by the small N and the exclusion of some relevant living tasks, the data still present a clear relationship between attendance in the program and quality of social interaction. In summary, attendance in the Moadon has been shown to be an important factor in improving the quantity and quality of social interaction, both of which were basic criteria of successful rehabilitation as defined in this paper.

Summary and Conclusions

Now that the results have been presented, the value of the Moadon Shalom as a post-psychiatric treatment program can be evaluated. Essentially, we are asking whether the

Moadon meets the criteria of a good rehabilitation program. According to the National Institute of Mental Health definition (Chapter I, p.4), psychiatric rehabilitation should be concerned with the restoration of social roles and social functions within significant social systems for the individual (i.e. family, job, participation in the general life of the community). Operationally defined, the criteria for successful rehabilitation developed in this paper were as follows: (a) maintenance of the ex-patient in the community (b) adjustment to life in the community -- the extent to which an individual performs relevant living tasks (quantity of social interaction) and his involvement in these living tasks (quality of social interaction). The Moadon has been shown to be effective in meeting both of these criteria. Specifically, after participating in the Moadon, a significant percentage of the Moadon population (73%) increased their community tenure and the amount of hospitalization time saved was far greater than hospitalization time lost. Given the chronicity and poor rehabilitation potential of the Moadon population, this gain demonstrates a strong relationship between participation in the Moadon and the maintenance of chronic ex-patients in the community. In investigating this

issue further, it was found that attendance in the Moadon, and reaching out (Contact) were especially important for more chronic members of the Moadon, thus demonstrating the particular success of the Moadon in helping its low functioning members.

Participation in the Moadon was also found to be related to the level of perfomance on relevant living tasks (work, grooming, household duties, recreational activities, visiting and entertaining at home) and the quality of life in the community. Specifically, the more one attended the Moadon, the more likely he was to be a high functioner on the living tasks being considered and the higher was his quality of interaction on these living tasks (as defined by facet G -- interaction for the purposes of happiness, obligation, and support). Although the data related to community adjustment were limited, the existing results do demonstrate the Moadon's effectiveness in helping marginal members of society become more involved in the community. It should be emphasized, however, that the improvement in functioning being referred to is relative to the prior level of functioning of the individual client, and that participation in the Moadon does not lead to complete personality or behavior change. However, even when viewed in its proper

perspective, the Moadon has been shown to be an important factor in the community adjustment of its clients.

At this point, the implications of the above results and other general issues related to the study can be considered. Specifically, the following will be discussed: (a) treatment in the Moadon as compared to treatment in a hospital setting (b) the Moadon in relation to other community based programs (c) contributions of the study to the field of psychiatric rehabilitation (d) future research stimulated by the study.

Treatment in the Moadon as compared to treatment in a hospital setting

It was pointed out in Chapter I that hospital treatment often creates a "shuttlebus effect" (short stays in the hospital and high readmission rates), a trend that has been corroborated by most demograhpic studies (Ratcliff, '64; Miller and Dawson, '68; Herjanic, Hales and Stewart, '69; Friedman, Von Mering, and Hinko, '66). The medical model orientation of most hospital programs (i.e. treating mental disorders as a sickness and not as a disability) and other factors associated with institutionalization were seen as a major cause of mental hospitals' failure to combat this trend (Erikson, '58; Schefler, '65; Cumming and Cumming, '65; Fairweather, '64;

Greenblatt, '70). The Moadon program on the other hand was designed to treat the functional limitations associated with mental disorders rather than the disorder itself; and it was shown that participation in the Moadon led to the breaking of the shuttlebus effect and an increase in community tenure. On the other hand, it can be said that not all hospital programs are based on the medical model and that some of them have programs with similar orientations to that of the Moadon. Hospital programs such as these, however, have also been shown to be ineffective in helping patients adjust to life in the community after release, the major reason being that they cannot help clients with every day living problems once they are in the community (Sanders et al., '67). It should be emphasized that this is not a condemnation of hospital treatment, for hospital programs might be effective in treating a patient within a hospital setting. However, without community based support upon release, gains in the hospital do not generalize to the community (Doehne, Sandifer, Phillips and Waters, '65), thus justifying community based programs as either a substitute or supplement for hospital treatment.

The above discussion has pointed to two factors necessary for successful rehabilitation of chronic mental

patients: (a) treating mental disorders as disabilities and emphasizing the functional limitations of the disability (b) treatment within the community.

The Moadon in relation to other community based programs

A second issue to be considered is the relationship between the Moadon and other community based programs. Although treatment within the community was shown to be a crucial element in the Moadon program, the Moadon's success does not provide across the board support for all community based programs. As was mentioned above, other factors such as the nature of the treatment program, is also an important factor in determining the effectiveness of the program. However, even if other community based programs had similar treatment programs, their success still would not be assured, for the present study was concerned with only the chronic segment of the ex-mental patient population and not the ex-mental patient population as a whole. Therefore, it is difficult to determine whether a treatment program effective for this type of population would also be effective for other segments of the ex-patient population. Finally, because most other programs do not base their criteria for success on a comparison of prior and present functioning, program comparison is not possible. In summary, two basic points have

been made: (a) although a program such as the Moadon has been shown to be effective in treating chronic, desocialized clients, there is still a question as to whether a program of this nature would also be effective for other segments of the ex-mental patient population (b) a comparison of the Moadon and other community based programs is not possible unless assessment techniques are similar.

Contributions of the study to the field of psychiatric rehabilitation

Much emphasis has been placed in this chapter on the effectiveness of the Moadon's treatment program. However, in addition to increased knowledge about the treatment of chronic ex-mental patients, the present study has made a number of other contributions to the field of psychiatric rehabilitation:

1. In the area of assessment, client success was measured by using past history as a baseline rather than in terms of present functioning alone. Such an evaluation procedure is especially effective for chronic clients, for it provides an opportunity to recognize improvement that might otherwise be ignored using other evaluation procedures. In addition, such an evaluation procedure provides an alternate approach to control groups in settings where they cannot be easily obtained.

2. In Chapter I, a need was expressed for program evaluation that focused not only on maintenance in the community, but also on the quality of life in the community (Pasamanick et al., '67; Friedman, Von Mering, and Hinko, '66).

In the present study, an operational definition of psychiatric rehabilitation was developed that included both of these criteria, and through the use of the evaluation techniques just mentioned, it was possible to measure both the community tenure and community adjustment of the treated clients.

3. In most studies, where the treatment population is not specifically defined, it is only possible to determine the success of a program in general and not whether it is applicable for a particular type of subject. In the present study, it was possible to determine the type of client for whom the treatment program was effective, thus helping to define the population to which generalizations could be made.

Future research stimulated by the study

Future research stimulated by this study falls into two categories: (a) research stimulated by the findings

of this study (b) research needed because of the failure of the study to deal with certain important issues.

1. Relationship between specific aspects of the Moadon and community adjustment -- Although information about specific Moadon programs is available, it has not yet been analyzed, thus only allowing for statements of success regarding the general program. Future research in the Moadon and other programs as well should include an evaluation of the various components of their programs in addition to a general evaluation. It is certain that all of the activities are not equally effective and if the less effective ones could be eliminated, the quality of the Moadon program would improve as a result.

2. Relationship between community tenure and community adjustment -- The lack of sufficient information on the questionnaire also made it impossible to study the relationship between community tenure and community adjustment. Although participation in the Moadon was found to be related to both of these components of community adjustment, the analysis cannot be considered complete unless it can be determined whether those who have saved hospitalization time are also those who have increased their

community involvement. Hopefully, future research in this area will include an evaluation of the interrelationship between these two components of community adjustment.

3. Measurement of community adjustment -- Another question of a more theoretical nature is how best to measure community adjustment. The questionnaire used in this study, although being comprehensive, was too complex for the Moadon population, thus leading to many unanswered questions and much missing information. Future research in this area would be improved if an instrument could be devised that was compatible with the ability level of the subjects being evaluated and that still obtained all the essential information.

A related issue that has not yet been treated is the validity and reliability of the questionnaire. With regard to validity, a pre-test of the questionnaire was administered to 15 clients who had participated in the Moadon since its inception and who were well known to all of the staff members. The subjects' responses on the questionnaire were then compared to the behavior and feelings of the clients as they were perceived by the staff. In general, there was agreement between responses on questionnaire items and staff perceptions, thus providing a gross measure

of concurrent validity. The use of facet theory to construct the social interaction questionnaire gives the questionnaire content validity by definition since all relevant variables related to social interaction were included.

With regard to reliability, insufficient responses on many items was a major reason why the questionnaire's reliability could not be adequately ascertained. There was however some data that demonstrated the internal consistancy of the questionnaire. On the comparison questions (comparing present period with best period since age 20), one of the possible responses was no difference between the two periods. In such instances it was possible to check similar questions relating to present and past periods in order to see whether the subject was consistent in his responses. It was found in the great majority of the cases that when a subject responded "no difference" on the comparison questions, there was in fact no difference between his responses to questions relating to past and present functioning.

Despite the above evidence relating to the reliability and validity of the questionnaire, future research would be improved if the validity and reliability of the measuring instruments would be ascertained more thoroughly.

4. Need for longitudinal research -- Finally we come to the question of the permanence of the gains made by Moadon clients. The present study was not longitudinal in nature, and measured community adjustment while most of its members were either still actively involved in the program or had only recently become less active. The question thus remains as to whether these short term gains will continue after an extended period of time. Evidence in the literature indicates that gains begin to diminish three years after treatment and that readmission rates again begin to rise. Since the Moadon has a policy of keeping its doors open to its former clients, the possibility exists that treatment effects can be maintained over a long period of time. However, without considering the nature of the treatment program, future research in this area would be of most value if it were longitudinal in nature, thus including an evaluation of long-term as well as short-term effects of participation.

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APPENDICES

APPENDIX A

SCORING SCALES FOR QUANTITY AND QUALITY OF SOCIAL INTERACTION

1. Scoring scale for quantity of social interaction -- i.e., household duties, grooming, entertainment, visiting outside of home (with friends or family), spending Sabbath and holidays with family (at home or elsewhere).

   1 point--negative change (i.e., high functioning during best period--low functioning at present)

   2 points--low level--no change

   3 points--high level--no change

   4 points--positive change

   a. Scoring scale for work:

      1 point--negative change (i.e., no work - no change)

      2 points--low level--no change (i.e., sheltered workshop)

      3 points--high level--no change (i.e., competitive employment) and no employment--sheltered workshop

      4 points--positive change (i.e., no employment--competitive employment or

sheltered employment--competitive employment).

Subjects with total scores for the six areas of 18 points and above were rated as high level functioners, those with 14-18 points as average functioners, and those with less than 14 points as low level functioners.

Rationale for scoring: To receive a score of 18 points or more, one would have to be functioning higher now than he did during his best period, or at least be functioning on the same level that he did during his best period since the age of 20 (low discrepancy--high level of functioning). Average functioners would be those who have improved their functioning in some areas and regressed in other areas, or who have low discrepancy scores, but have been functioning on a low level in some areas and on a high level in other areas. Low functioners are those who have either maintained a low level of functioning or who have regressed in functioning since their best period.

2. Scoring scale for quality of social interaction -- i.e., household duties, grooming and entertainment.

1 point--negative change (lower functioning now than during best period).

2 points--low level--no discrepancy (i.e., when response was 7--no discrepancy between now and best period--responses to questions concerning best and present period were referred to--if answers indicated low level functioning, the subject received two points).

2.5 points (for those living tasks that were comprised of only two comparisons). If one response indicated better functioning now and the other indicated better functioning during his "best" period, 2.5 points were assigned.

3 points--high level--no discrepancy (same procedure as described under 2 points).

4 points--positive change (functioning better now than during best period since age 20).

Subjects with total scores of 8 points and above were rated as high level functioners and subjects with total scores of 8 points and below were rated as low level functioners. Rationale for scoring: To receive a score of 8 points, a subject must be functioning on a high level in at least two of the areas being evaluated.

APPENDIX B

SOCIAL INTERACTION QUESTIONNAIRE[1]

I. Quantity of Social Interaction

Possible responses

(a) To a very great extent

(b) To a great extent

(c) To a small extent

(d) Not at all

A. Household Duties

Present:

1. To what extent do you go shopping?
2. To what extent do you take part in cleaning the house?
3. To what extent do you go about getting a repairman when something goes wrong?
4. To what extent do you attend to your laundry--clothes, linen, etc.?

Best period since age 20:

1. To what extent did you go shopping then?
2. To what extent did you take part in cleaning the house?

[1]Only those items that were analyzed for the study

3. To what extent did you go about getting a repairman when something went wrong?
4. To what extent did you attend to your laundry--clothes, linen, etc.?

B. Entertainment

Present: How often do you do the following?

1. Go to the cinema?
2. Go to concerts, theater?
3. Go to lectures or talks?
4. Go out walking or to a cafe?

Best period since age 20: How often did you do the following:

1. Go to the cinema?
2. Go to a concert, theater?
3. Go to a lecture or talk?
4. Go to a cafe or out walking?

C. Self-care -- grooming

Present:

1. To what extent do you yourself take care of your personal grooming?
2. To what extent do you receive help from members of the family in your personal grooming?
3. To what extent do you have help from friends in

your personal grooming?

Best period since age 20:

1. To what extent did you yourself take care of your personal grooming?
2. To what extent did you receive help from members of the family in your personal grooming?
3. To what extent did you receive help from friends in your personal grooming?

D. Visiting outside home

Present:

1. How often do you visit relatives?
2. Approximately how often do you visit friends?

Best period since age 20:

1. Approximately how often did you visit relatives?
2. Approximately how often did you visit friends?

E. Entertaining at home

Present:

1. To what extent do you usually spend holidays with relatives and family at home?
2. To what extent do you usually spent Friday night (Shabbat) with relatives and family at home?

Best period since age 20:

1. To what extent did you spend holidays with

relatives and family at home?

2. To what extent did you spend Friday night (Shabbat) with relatives and family at home?

II. Quality of Social Interaction

Possible responses

(a) Very much more

(b) Much more

(c) More

(d) Less

(e) Much less

(f) Very much less

(g) No difference

A. Household Duties

Considering what you do in the house now as compared with then (best period since age 20) --

1. Does it give you pleasure now as compared with then?

2. To what extent does it give others pleasure now as compared with then?

3. To what extent do you feel you should do these things now as compared with then?

B. Grooming

When you think about your personal appearance as

compared with then --

1. To what extent are you happy with your appearance now as compared with then?
2. To what extent do you think others who are important to you are happy with your appearance now as compared with then?

C. Entertainment

When you think about your entertainment activities now as compared to then, to what extent do you --

1. Go out specifically for that activity as compared to the past?
2. Go out because you like being with other people as compared to the past?
3. Go out because other people invite you as compared to the past?
4. Go out because you have nothing else to do as compared to the past?

APPENDIX C

A COMPARISON OF QUESTIONNAIRE PARTICIPANTS AND NON-PARTICIPANTS ON RELEVANT DEMOGRAPHIC VARIABLES

Table A.1 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of total number of admissions

Participants	9	30	24	63
Non-participants	13	30	31	74
	22	60	55	137

x^2=.727 df=2 p <NS

Table A.2 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of total time in hospital

Participants	28	34	62	
Non-participants	32	41	73	
	60	75	135	

x^2=.0003 df=1 p <NS

Table A.3 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of age at first admission

Participants	22	40	62	
Non-participants	30	43	73	
	52	83	135	

x^2=.2403 df=1 p <NS

Table A.4 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of diagnosis

Participants	48	4	11	63
Non-participants	56	7	12	75
	104	11	23	138

x^2=.418 df=2 p <NS

Table A.5 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of in-out of hospital at referral

Participants	32	37	69
Non-participants	37	44	81
	69	81	81

x^2=.0062 df=2 p <NS

Table A.6 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of sex

Participants	45	24	69
Non-participants	57	24	81
	102	48	150

x^2=.490 df=2 p <NS

Table A.7 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of living arrangements

	With Someone Else	Without Someone Else	
Participants	30	7	37
Non-participants	31	13	44
	61	20	81

x^2=.71 df=1 p <NS

Table A.8 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of work at referral

Participants	20	48	68
Non-participants	28	52	80
	48	100	148

x^2=.18 df=1 p <NS

Table A.9 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of marital status

Participants	6	62	68	
Non-participants	15	65	80	
	21	127	148	

x^2=1.76 df=1 p <NS

Table A.10 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length of first admission

Participants	20	28	14	62
Non-participants	24	28	20	72
	44	56	34	134

x^2=.64 df=2 p <NS

Table A.11 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length of second admission

Participants	27	10	15	52
Non-participants	25	19	16	60
	52	29	31	112

x^2=2.44 df=2 p <NS

Table A.12 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length of third admission

Participants	17	11	8	36
Non-participants	21	10	12	49
	38	27	20	85

x^2=.181 df=2 p <NS

Table A.13 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of fourth admission

Participants	15	10	3	28
Non-participants	14	15	9	38
	29	25	12	66

$x^2=2.98$ df=2 $p <$ NS

Table A.14 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of fifth admission

Participants	9	5	10	24
Non-participants	16	8	7	31
	25	13	17	55

$x^2=2.412$ df=2 $p <$ NS

Table A.15 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of sixth admission

Participants	4	9	3	16
Non-participants	11	5	4	26
	15	14	7	36

$x^2=4.233$ df=2 $p <$ NS

Table A.16 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of age

Participants	9	14	46	69
Non-participants	9	18	51	78
	18	32	97	147

$x^2=1.65$ df=2 $p <$ NS

Table A.17 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of community tenure

Participants	31	9	40	
Non-participants	41	17	58	
	72	26	98	

x^2=.26 df=1 p< NS

Table A.18 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of attendance

	low	high attendance		
Participants	19	50	69	
Non-participants	42	39	81	
	61	89	150	

x^2=9.01 df=1 p < .01

Table A.19 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length between first and second admission

Participants	17	12	24	53
Non-participants	16	22	24	60
	33	34	48	113

x^2=2.52 df=2 p <NS

Table A.20 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length between second and third admission

Participants	19	8	14	41
Non-participants	17	20	15	52
	36	28	29	93

x^2=4.435 df=2 p <NS

Table A.21 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length between third and fourth admission

Participants	14	10	8	32
Non-participants	18	12	10	40
	32	22	18	72

x^2=.007 df=2 p < NS

Table A.22 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length between fourth and fifth admission

Participants	11	9	5	25
Non-participants	15	11	7	33
	26	20	12	58

x^2=.005 df=2 p < NS

Table A.23 -- A comparison of participants and non-participants on the Social Interaction Questionnaire in terms of length between fifth and sixth admission

Participants	6	8	7	21
Non-participants	8	10	4	22
	14	18	11	43

x^2=1.932 df=2 p < NS