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THE RELATIONSHIP BETWEEN RESIDENTIAL PROGRAM CHARACTERISTICS AND PATIENT'S INTEGRATION INTO THE COMMUNITY AND SATISFACTION WITH THEIR LIVING ENVIRONMENT

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THE RELATIONSHIP BETWEEN RESIDENTIAL PROGRAM CHARACTERISTICS AND PATIENT'S INTEGRATION INTO THE COMMUNITY AND SATISFACTION WITH THEIR LIVING ENVIRONMENT

By

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ABSTRACT

THE RELATIONSHIP BETWEEN RESIDENTIAL PROGRAM CHARACTERISTICS AND PATIENT'S INTEGRATION INTO THE COMMUNITY AND SATISFACTION WITH THEIR LIVING ENVIRONMENT

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The purpose of this study was to determine if residential programs (group homes and supervised apartments) for the chronically mentally ill differ in their program characteristics and social climates and if program characteristics and social climate are related to residents' integration into the community and satisfaction with their living environment. In addition, the relationship between resident characteristics and their integration into the community and satisfaction with their living environment was examined. Finally, residents' overall level of community integration and satisfaction with the environment was discussed.

A review of the literature identified very few studies which examined program characteristics of residential settings.

Seventy-eight residents in eight group homes and ten supervised apartments participated in the study. Forty-three house staff and apartment supervisors also participated.

The research design was divided into two sections. The first section, or two formal hypotheses, examined

whether the two independent variables, "program characteristics" and "social climate" differed between residential settings. Analysis by univariate analysis of variance was statistically significant ($p < .05$) for both variables. The second section of the design, or the remaining four formal hypotheses, asked whether program characteristics and social climate are related to the dependent variables: residents' integration into the community and satisfaction with the living environment. Four multiple regression analysis equations, matching each of the independent and dependent variables were conducted.

The major findings were that three social climate characteristics were significantly related to residents' integration into the community. Two program characteristics were also significantly related to residents' integration into the community. Residents' satisfaction with their living environment was significantly related to all ten social climate characteristics, however, no program characteristics were significantly related to residents' satisfaction.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

LIST OF APPENDICES

CHAPTER 1

STATEMENT OF THE PROBLEM

Introduction

The introduction of neuroleptic agents and the development of community mental health centers have provided the underpinnings for a reform movement in the treatment of hospitalized chronically mentally disabled patients. This reform movement has been directed at deinstitutionalizing patients and offering outpatient care in local communities (Williams, Bellis and Wellington, 1980). In the zeal of social reform, deinstitutionalization efforts have often confused locus of care and quality of care. Changing the location of care does not, in itself, ensure the humanizing of mental health care. Changed location must be accompanied by carefully designed programs (Bachrach, 1978).

Adequate housing is considered by most proponents of deinstitutionalization as one of, if not, the basic service in a system of community support services for formerly hospitalized patients (Carling, 1978).

One leading proponent, Paul J. Carling (1978), suggests the primary goal of community residential housing revolves around the principle of normalization. In this context, he says, adequate housing allows expatients to

reenter the community and maximize their participation in "normal" community activities through providing them with enough supportive structure. In residential terms, this means a continuum of housing options ranging from minimal programmatic and environmental supports to greater and greater levels of these supports, as needed.

The sheltered living arrangements in this continuum of housing options offer different levels of social and psychological support to residents. It is this variance in housing programs and individual needs which requires us to look at the question of what characteristis of residential housing programs are correlated with normalization or integration into the community.

Need for the Study

There are several reasons why it is important to study what characteristics of residential housing programs are correlated with residents' integration into the community. Probably, the most important reason is the size of the problem. Between 1955 and 1975 there was a 65 percent decrease in the census of patients in state mental hospitals, from 559,000 to 193,000. While annual census was decreasing, admissions to state hospitals increased from 178,000 in 1955 to a peak of 390,000 in 1972, and had only declined to 375,000 by 1974. This trend to lower census and higher admissions reflects a trend toward short-term hospitalization and a growing proportion of readmissions. These statistics surely reflect

the lack of community-based support systems (Bassuk and Gerson, 1978).

The last several years have witnessed growing concern over the nation's commitment to deinstitutionalization. Thousands of chronically mentally ill have been discharged to inadequate housing and nonexistent services in the community (Carling, 1978; Lamb, 1979). This continuing failure to bring about a more humane existence for these individuals is a source of guilt, shame and frustration for countless communities (Report to Secretary of Health, 1980).

The Task Force for the Development of Community Residential and Rehabilitative Programs of the New York State Department of Mental Hygiene (1976) concluded that "If the home, or rather a supportive home environment, is so central to our well-being and development, then the concept of the home as a supportive living environment, whether transitional or permanent, must be a concern of the first magnitude in the development of community programs for the mentally disabled (p. 26)."

If community residential services are to promote the humane, normalization process of community reentry, residential program characteristics must be examined to determine their impact on community reentry and quality of life.

The literature examining residential placement for chronic psychiatric patients abounds with methodological difficulties. Controlled research is almost entirely lacking (Rog and Rausch, 1975), but descriptive reports have much to say in favor of such programs (Test and Stein, 1978).

As is true of most studies of public service programs, these studies usually lack random assignment or control groups (Suchman, 1967). Another problem is the reliance on dependent measures like rehospitalization and employment (Anthony, et al, 1972), even though they have been termed unreliable by others (Erickson and Paige, 1973). Such measures of outcome do not provide an understanding of the process of returning patients to the community (Carpenter, 1978). There remains a great need for descriptive research which focuses on the quality of patient life and patient satisfaction with this environment.

The present research attempts to address some of these issues.

Theory

This research is based on several assumptions regarding community treatment of the chronically mentally disabled. These theories and the background and rationale for community treatment will be discussed in order to provide a conceptual framework for the present study.

Deinstitutionalization has been defined as a process involving two elements: Shunning or avoidance of traditional settings (particularly state hospitals) for the care of the mentally ill, and the concurrent expansion of community-based facilities for the care of these individuals (Bachrach, 1978).

The philosophy of deinstitutionalization emphasizes

the rights of individuals in a strong civil libertarian sense and holds that the primary avenue to change is through modification of the environment. The goal of deinstitutionalization is to humanize mental health care and reverse what is seen as the dehumanizing influences which are believed to be part and parcel of the institutional approach to treatment (Bachrach, 1978).

The philosophy and goals of deinstitutionalization proceed from some fundamental assumptions about mental health care. First, it is assumed that community mental health is a good thing and that community-based care is preferable to institutional care for most, if not all, mental patients. Community care is seen as the more therapeutic and represents the treatment of choice. A second assumption is that local communities can and are willing to assume responsibilities in the care of the mentally ill. Third, deinstitutionalization assumes that community-based programs can perform the functions of the mental hospital, equally or better (Bachrach, 1978).

Williams, Bellis and Wellington (1980) have described the various historical forces contributing to the deinstitutionalization movement. They point out that the Great Depression and World War II left hospitals for the mentally ill without financial resources to hire needed staff or build additional facilities made necessary to care for increased admissions. By the end of World War II, state hospitals could not provide even minimal custodial care and no state hospital met the minimal standards of operations

of the American Psychiatric Association. Hospitals began turning to neuroleptics and physical procedures such as shock treatments and psychosurgery as admissions increased and staffing decreased.

The twenty-year period after World War II was, according to Williams, et al, a period of social unrest, political liberalism and economic expansion. America attempted to bring its previously excluded minorities into the mainstream. The federal government initiated progressive programs and the courts eliminated legal supports to discrimination.

There was also, at this time, an increased interest in psychiatry and mental health issues. This interest was, in part, due to the large number of men turned down for military service due to psychiatric impairment. Psychiatry also developed quick and effective methods of treating war neuroses and returning its victims to active duty. In addition, Williams, et al, say that psychoanalytically-based psychiatry seemed to offer some people some understanding of the causes and atrocities of World War II.

These factors, and others, led to the federal government taking a major role in the provision of mental health services. Congress created the National Institute of Mental Health and the Community Mental Health Center Act of 1963. Community Mental Health Centers were seen as the replacements of the state hospitals. Their focus was on providing mental health services to previously underserved, poor urban and rural areas. Unfortunately, the

Community Mental Health Centers were not required to develop programs for the chronically mentally ill. Another problem was that the federal government by-passed state governments to work with local communities. (Williams, et al, point out that the state governments were often by-passed as the federal government created and funded service programs because they were often seen as conservative and racist.) As state hospitals began to discharge chronically disabled patients back to the community, state hospital funds did not accompany the patients in most states. State funds were saved as the federal programs bore the cost of community treatment. In addition, federal judges affirmed the rights of hospital patients to adequate care and treatment, resulting in some upgrading of hospital programs and increased discharges back to the community.

Other factors leading state hospitals to discharge the chronically disabled back to the community included the introduction of neuroleptics which were able to control bizarre symptoms and many clinicians' beliefs that it would aid in recovery and minimize the effects of institutionalization.

Test and Stein cite Barton (1966), Goffman (1961), Gruenberg (1967) and Hansell and Benson (1971), as having described the "institutional syndrome," which may be characterized as apathy, lack of initiative, loss of interest, apparent inability to plan for the future, and lack of individuality. These characteristics are believed to develop through an interaction of the premorbid inadequate life-style, the disease process, and the institutional

environment which limits contact with the outside world and assumes management of an individual's life to such an extent that an individual's own personality functions atrophy. The work of others (Ludwig and Farrelly, 1966; Ludwig and Farrelly, 1967; and Towbin, 1969) has led to the theory that patients become active participants in this process and that they develop techniques to maintain their dependent, non-responsible patient status.

Empirical evidence for the existence of an institutional syndrome comes from several sources, according to Test and Stein. Wing (1962) surveyed the attitudes and behavior of male schizophrenics with over two years stay in the hospital and found that the longer the stay, the more unfavorable their attitude toward discharge. Honigfeld and Gillis (1967) found that time in the hospital is linearly related to the development of a "social breakdown syndrome." Paul (1969), in a review of research on the chronic patient, cites studies showing that the longer the patient remains in the hospital, the less the chances of his/her discharge.

Evidence that any psychiatric hospitalization, regardless of length of stay, may have negative effects is also discussed in Test and Stein. Langsley and Kaplan (1968) surveyed studies demonstrating the adverse effects of hospitalization and the label "mentally ill" in the attitudes and expectations of the patient him/herself, the patient's family and community members to him/her. In addition, Mendel and Rapport (1969) found that a history

of previous psychiatric hospitalizations heavily influenced the decision to rehospitalize, independent of severity of the individual's current illness.

The attempts to make hospitalization more humane and effective, reviewed by Test and Stein, show that while in-hospital adjustment improves, it is unrelated to release rates or post-hospital adjustment. Wing and Brown (1961) surveyed three mental hospitals in Britain differing in the degree of social and humane treatment. Measures of patient's symptomatology demonstrated that there was less critical disturbance in the hospitals with more advanced social treatment. Linn (1970) followed this line of research, however, and found variables related to humane treatment (e.g., hospital atmosphere, good facilities, humanistic policies toward patients) unrelated to treatment outcome (defined as rapid release).

Efforts to improve in-hospital treatment have led to programs ranging from highly psychodynamic approaches to programs emphasizing teaching of coping skills for community living. After surveying the literature in this area, Paul (1969) concluded that intensive treatment programs frequently improve within-hospital adjustment and they increase and speed up release rates; however, they are only slightly related to post-hospital adjustment and are unrelated to length of community stay. One study (Fairweather, 1964) described by Test and Stein for example, combined milieu and learning theory approaches in an experimental program aimed at resocialization and instrumental role performance.

Problem-solving patient groups were formed and a step-system with responsibilities, passes and funds contingent upon appropriate behavior was initiated. A traditional ward program served as a control. The results showed significant differences in favor of the within-hospital performance on the experimental program, and that the experimental program led to earlier release rates. However, a six month post-release follow up showed rehospitalization rates demonstrated no difference between the experimental and control group.

There have also been attempts made to shorten hospital stays in the hope of eliminating the negative effects of institutions while moving patients away from the hospital and into the community. Among those reported by Test and Stein is a study by Caffey, et al, (1968). Newly admitted male schizophrenics in a Veterans Administration Hospital were randomly assigned to one of three treatment conditions. Condition A consisted of "normal hospital care" with the usual aftercare; condition B consisted of brief intensive care with special aftercare; and condition C consisted of normal hospital care with special aftercare. The mean times in the hospital were 80, 29 and 86 days, respectively. The study found no statistically significant difference between readmission rates or time out of the hospital before readmission for the three conditions.

Another study of brief hospitalization by Herz, et al, (1977) compared three conditions including brief hospitalization (average of 11 days) with transitional day

care; brief hospitalization without transitional day care; and standard hospitalization (average of 60 days); all patients were offered outpatient aftercare. Two-year follow up on these 175 patients found no significant differences between readmission rates for the three groups. Herz did find that differences between groups in levels of psychopathology and inadequacy of role functioning favored the brief hospitalization group and that the use of day care reduced the number of inpatient days.

Gove and Lubach (1969) used an experimental group which received three days of intensive treatment to alleviate severe anxiety and disorganization, followed by several weeks in a "readjustment area" intended to prepare for community reentry. Patients who had been admitted from the same geographic area the previous year served as controls. Results indicated no significant difference in readmission rates, but when readmission did occur, the length of treatment for the experimental group was significantly shorter. However, differences could be due to other variables differing from one year to the next.

Mendel (1968) and Rhine and Mayerson (1971) report favorable results in their studies on short-term hospitalization, but neither program utilized a control group.

In general, Test and Stein conclude that short-term hospitalization studies report readmission rates that are no higher than those for longer term hospitalization. Short-term hospitalization research, therefore, suggests that long-term hospitalization is not necessary for the

treatment of the severely disturbed. Unfortunately, re-admission rates for short-term hospitalization remain high and there still remains a "revolving door" problem.

In recent years, many attempts have been made to develop programs in the community which would both solve the revolving door problem with readmissions and offer a humane alternative to hospitalization. As stated earlier, these programs have centered around the principal of normalization by maximizing participation in community activities and providing supportive structures.

Segal (1976) points out that emphasis on community care has created increased variance in the types of sheltered care programs available. These programs range from halfway houses, foster care homes, lodges, apartments and large dormitories to emergency respite centers. Segal says, "we come to the question of determining the characteristics which make a difference with respect to the type of sheltered care an individual may best profit from." When speaking of profit, Segal is referring to "the extent to which the level of social involvement or social integration of the individual is enhanced by his or her social environment."

In summary, this section on theory has covered the background and rationale for community treatment. Included were discussions of the philosophy, goals and assumptions of deinstitutionalization. Also discussed were the historical forces contributing to this movement. The clinical rationale and empirical evidence for deinstitutionalization

has been reviewed, along with attempts to correct the problems of institutionalization. Finally, current problems in community treatment and deinstitutionalization were introduced.

Purpose of the Study

The primary purpose of this study is to determine what characteristics of residential housing programs for the chronically mentally ill are correlated with residents' increased integration into the community and satisfaction with their environment. In order to accomplish this purpose, residential programs are assessed in relationship to modifiable program rules and structure, i.e., presence or absence of a curfew. Next, the social environment of residential programs are assessed by measuring the "climate" or "personality" of the residential programs. Finally, individual characteristics of residents are measured in order to describe the population served.

Hypotheses

Six main hypotheses are investigated in this study. They are stated generally in this section and in statistical form in Chapter Three. The main hypotheses to be investigated are:

(1) The residential settings studied will differ in their social environments.

(2) The residential settings studied will differ in their structure and program characteristics.

(3) Residential settings' social environments are important factors in resident's integration into the community.

(4) Residential settings' social environments are important factors in the resident's satisfaction with their residential placement.

(5) Residential settings' structure and program characteristics are important factors in resident's integration into the community.

(6) Residential settings' structure and program characteristics are important factors in resident's satisfaction with their residential placement.

Overview

In Chapter II the literature on residential placement of the mentally ill will be reviewed. In Chapter III the design and analysis of the study will be presented, including a description of the subjects and methodology and a description of the analysis used. Chapter IV will present the results of the hypothesis testing, as well as the results of the supplementary analysis. The study will be concluded in Chapter V with the summary and conclusions, along with the implications for future research.

CHAPTER II

REVIEW OF THE LITERATURE

Research conducted on psychiatric patients has focused on many factors involved in the process of rehabilitation. For the purpose of this study, only research related to the area of community residential placement of the chronically mentally disabled will be reported.

This literature review will be divided into three broad areas. The first section will include studies that have examined the characteristics of both the individuals served in residential placement and the programs which serve them. The second section will deal with studies which examined just program characteristics of residential placement. The third section will examine those studies which examined just the characteristics of the individuals served in residential placement.

A few studies examining both the characteristics of the individuals served in residential placement as well as the programs which serve them will be described and discussed in sections two and three. The remaining studies examining both individuals served and programs serving them are discussed in their entirety in section one.

Few studies employed adequate control groups, if they were used at all. In addition, the outcome measures often

appeared to be selected out of the need to support a particular program rather than to test hypotheses.

Research in Both Residents' Characteristics and Program Factors

This section will focus on studies that have examined the characteristics of both the individuals served in residential placement and the programs which serve them. While other studies addressing both patient and program characteristics have been divided between sections two and three, the studies in this section are presented here in an attempt to preserve their unity.

Segal and Aviram (1978) studied the influence of individual characteristics and the social environment on the internal and external integration of formerly hospitalized mental patients living in community-based sheltered-care facilities, such as halfway houses, family-care houses, and board-and-care homes. Internal integration (II) was defined as social integration within the home and the extent to which access to community life was actively supported by the home. External integration (EI) was defined as the extent of access to and participation in community life whether supported by the home or not.

To obtain the sample, the state of California was divided into three master strata: Los Angeles County, the Bay Area, and all other counties in the state. In the Los Angeles and Bay area strata, a two-stage cluster sample

was designed with sheltered-care facilities as the primary sampling unit and individuals within facilities as the second stage. In the third stratum, comprising "all other counties," a three-stage cluster sample was designed using counties as primary selection units, facilities as the second stage, and individuals as the third stage. There were 499 resident interviews attempted with a loss (due to refusal and inaccessibility) of 12%; 10% of the 234 operators refused to participate.

Scales were developed to measure external and internal social integration. The 650 possible variables used to predict social integration were reduced to 26 significant predictors ($p < .10$). These 26 predictors were modifiable by policy action or represented individual characteristics that had to be controlled in the analysis to interpret effects on the more modifiable variables on the criterion measures. The selected predictors also added a reasonable amount of additional, independently explained variance to the model.

Segal and Aviram found that community characteristics, resident characteristics, and sheltered-care facility characteristics, in that order, influenced EI. The most important community characteristic across all ages and types of psychopathology was the response of neighbors to the residents. Positive responses, such as inviting residents into their homes (on an individual basis, not as a group), and having more than casual conversations with them, led to higher EI. Another important community characteristic

was that the closer the home was to community resources and services, the higher the EI scores of residents. Among resident characteristics, the strongest associate of EI was sufficient spending money for residents to do things they wanted. Being an involuntary resident, that is not choosing the place they lived, was also associated with lower levels of EI. This was true for those who wanted to leave the facility and those who were indifferent to leaving. The most important facility characteristic of EI was its psychiatric environment, as measured by the Community Oriented Program Environmental Scale (Moos, 1974b). Homes with programs emphasizing resident involvement, support from staff and other residents, open expression of feelings, and a structured program with clear expectations for residents showed higher EI. Homes in which residents, as a group, were isolated from their families and neighbors showed decreased EI.

II was influenced most by community characteristics followed by facility characteristics and resident characteristics, in that order. As with EI, the most important community characteristic effecting II was positive response from neighbors. In addition, rural locations were associated with higher II than urban ones. Again, as for EI, a good psychiatric environment in the home was associated with higher II and a bad psychiatric environment with lower II. A positive attitude toward use of community psychological services was associated with higher II and homes with female operators tended to promote higher II in

residents. For resident characteristics, level of psychological distress was negatively correlated with II and sufficient spending money was positively correlated to II.

Segal and Aviram (1978) conclude that the people they studied have never been integrated into the mainstream of society. They suggest that outcomes of community care should be assessed by comparing the number of persons maintaining an adequate level of functioning who, given past experience, might deteriorate to less adequate social functioning if confined to an institution.

Ware (1979) studied the relationship between demographic and treatment variables in community-based rehabilitation programs. Subjects were 167 psychiatric patients residing in a 73-bed, board and care home over a 24 month period. Residents were contacted six months following discharge from the home and divided into two groups. The first group, or success group, included those former residents who had lived in the community independent of any inpatient psychiatric facility for six months following discharge from the home. The second group, or failure group, consisted of those former residents that were admitted to an inpatient facility within the six-month period following their discharge from the home. The two groups were compared for age, sex, race, diagnosis, educational level completed, prior work history, length and number of times hospitalized, and number of years since first hospitalization. The groups were also compared according to employer of their psychiatrist (private or public), and current enrollment in a job, school, or outside rehabilitation program.

Analysis of the data through stepwise regression procedure indicated three variables that were significant ($p < .001$) in predicting treatment outcome. Number of times hospitalized during treatment, participation in work therapy and number of years spent in the mental health system were significant in predicting ability to remain independent from inpatient care. Additionally, age at discharge was found to have a curvilinear relationship with outcome.

Ware concluded that the efficacy of psychiatric treatment methods, as they relate to success in the community, is questionable.

Smith and Smith (1979) studied 130 mental patients discharged from two divisions of a large state hospital in Michigan. Patients diagnosed as mentally retarded or suffering from organic brain damage, and those whose primary diagnosis was related to substance abuse were excluded from the study. Immediately following discharge, each patient was assessed on seven different scales. Scales used assessed (1) plans and abilities; (2) desire to leave; (3) institutionalization; (4) current hospital experience; (5) family and living situation; (6) aftercare; and (7) employment and mobility. The seven dimensions were analyzed for independence from one another and internal reliability was assessed by calculating their alpha scores. The authors attempted to relate scores on the seven dimension to recidivism and community adjustment of the subjects. Recidivism was defined as a return to

the hospital at least once within a nine-month period after discharge. Community adjustment was measured by a follow-up scale covering patient's adjustment in the areas of employment, family relationships, interpersonal relationships, social and recreational activities, and overall involvement with the community. Follow-up data was collected at three months post-discharge. Any subjects rehospitalized before three months time completed follow-up questionnaires and were assessed immediately after readmission.

For purposes of analysis, the patients were divided into two groups: those with scores on community adjustment above the mean, and those with scores below the mean. The patients were also divided into groups containing those with scores above the mean and those with scores below the mean for each of the seven diminsions. The dimension scores were compared in a series of 2x2 Tables with the adjustment scores and the incidence of recidivism and nonrecidivism.

Chi-square tests on the 2x2 Tables indicated that scores on four of the dimensions were significantly related to the incidence of recidivism or to the community adjustment scores or to both. Those dimensions were (1) Family and Living Situation; (2) Aftercare; (3) Plans and Abilities; and (4) Desire to Leave.

Scores on Family and Living Situation discriminated significantly between high and low community adjustment ($p < .01$) and between recidivism and nonrecidivism ($p < .01$).

The authors also noted that although a large number of patients (29.9 percent) adjusted poorly in supportive family situations, few of them returned to the hospital.

Scores on Aftercare were related to both adjustment ($p < .01$) and recidivism ($p < .05$) with those patients receiving aftercare scoring higher on community adjustment and lower on recidivism. Scores on Plans and Abilities were significantly related to only recidivism ($p < .05$). The results showed that while patients who were considered capable of making plans and living in the community were likely to stay out of the hospital, many of those who were not regarded in this way were still able to remain outside the hospital. The Desire to Leave dimension was significantly related to the patient's adjustment in the community ($p < .01$), but not to their eventual recidivism. The authors concluded that wanting to stay in the community was necessary for success in the community, but that simply wanting to go back to the hospital is not always sufficient to guarantee one's return in these days of tighter hospital admission policies.

No significant differences were observed in the adjustment and recidivism scores for the dimension of Institutionalization, Current Hospital Experience, and Employment and Mobility. The authors concluded that measures of chronicity and lack of social competence, both of which were thought to characterize patients who had spent long periods of time inside mental hospitals, did not appear to be related to outcomes in the community.

Finally, Smith and Smith say the results of their study demonstrate that a patient's staying out of the hospital does not necessarily imply that he or she has made a successful return to community life. Smith and Smith suggest that more humane and client-centered outcome measures of community adjustment should be used with measures such as recidivism.

The last study to be discussed in this section examining both the characteristics of the individuals served in residential placement as well as the programs which serve them was by Hull and Thompson (1981).

The authors studied 157 community residential facilities for the mentally ill in Manitoba, Canada, examining:

(1) Individual characteristics of residents;
(2) Social structural characteristics of the residences;
(3) Staff attitudes; and
(4) Community characteristics.

These variables were studied for their influence on "normalization." Normalization was defined as "the utilization of means which are culturally normative as possible, in order to establish and/or maintain personal behaviors and characteristics which are culturally normative as possible." The level of normalization was assessed by use of a 30 rating environmental normalization scale designed to correspond to the Program Analysis of Services System (PASS) Field Manual (Wolfensburger and Glenn, 1975).

There were 296 residents studied with a median age

of 57 and a median number of 2.25 psychiatric hospitalizations. Residents had spent a median of 7.5 years in the hospital; 49.2 percent were male and 50.7 percent were female, 75% were diagnosed schizophrenic.

A step wise regression procedure was undertaken with the following results:

The largest proportion of the variance, 41 percent, was accounted for by four characteristics of the home itself plus one community measure. The more residents in a home, other things being equal, the lower the normalization score. Similarly, the greater the number of disability groups in the home and the higher the proportion of males, the lower the level of normalization achieved by that home. If the home was an independent living facility, it was likely to achieve a higher normalization score than if it was a Board and Care Home, even when other variables were controlled. The higher the average family income in the community, the higher the average normalization score of the residences in the community.

Three individual characteristics accounted for 30% of the variance. The longer the time the residents had spent in institutions, the lower the environmental normalization score achieved by a resident. Two measures of Social Competence were positively related to environmental normalization scores. The first reflected skills in the utilization of community services and resources and the second measured interpersonal skills.

A number of variables directly measuring behavior

problems or which could act as a measure for pathology were entered into the equation. Of these, however, only length of institutionalization was related to the environmental normalization score.

The authors suggest the development of residential facilities which house people at a number of points on the distribution of these characteristics. Overall, they suggest that smaller residences which provide more opportunities for independence, which serve only one disability group, e.g., the mentally ill, and which are located in a middle income community are more normalizing than those with the opposite characteristics.

Summary

The literature reviewed in this section has examined both patient's characteristics and program factors effecting patient outcome. The literature reviewed has raised questions regarding the use of outcome measures such as rehospitalization or community tenure (Smith and Smith, 1979). These commonly used measures ignore such goals of deinstitutionalization as humane treatment, patient satisfaction with their environment and integration into the mainstream of society.

Atkinson (1975) has pointed out the weakness of such outcome measures as rehospitalization because return to the hospital may reflect a lack of alternative placements rather than actual need for rehospitalization. Some

studies examined here (Segal and Aviram, 1978) (Hull and Thompson, 1981) have attempted to evaluate programs with more meaningful outcome measures.

In the present study, the original goals of deinstitutionalization, client satisfaction and integration into the community were used as the outcome criteria for success. Program factors relating to these outcome criteria were examined.

Research on Program Factors

This section will focus on how various program and treatment characteristics have been associated with patient outcomes in residential programs.

Braun, Kochansky, Shapiro, Greenberg, Gudeman, Johnson and Shore (1981) have reviewed controlled studies of deinstitutionalization. They conducted an extensive search of published works for studies satisfying generally accepted scientific standards including: (1) random assignment to experimental and control programs; (2) patients well characterized before randomization; (3) outcomes measured with validated instruments and criteria; (4) follow-up covering a high proportion of the subjects for a reasonable period of time; and (5) large enough number of patients and observations for statistical analysis. Their purpose was to evaluate deinstitutionalization for the effect of specific programs on patients. Three types of studies were reviewed. Those studies dealing with residential placement will be discussed here.

Braun and associates reviewed a study by Weinman, et al, (1978) studying outcomes for chronically mentally ill patients released from Philadelphia State Hospital. The study randomly assigned 516 patients, 90% of whom were diagnosed as schizophrenic and who could not be placed with relatives, to community placement with the support of community members called "enables." In one experimental group, professional staff assisted the enables, giving

them advice and support; in the other, they gave most of their attention directly to the patients. One control group randomly selected from the same population as the experimental groups received socio-environmental treatment. A second, nonrandomized control group of 109 patients was discharged from the hospital through traditional ward programs. Findings indicated that community treatment generated fewer readmissions over a 24 month post-treatment period than socio-environmental treatment. However, this difference was not statistically significant. The patients released from the traditional wards had the highest return rate. This difference was significant from both the community and socio-environmental treatment programs. Community treatment patients showed a significantly greater improvement in self-esteem during treatment than both control groups. There was no difference in readmission rates or self-esteem for the two experimental conditions. However, the patients in the enabler-centered condition manifest significantly less psychiatric disability at the completion of treatment than their counterparts in the patient-centered condition. Weinman, et al, conclude "perhaps the most important contribution of the project was the role created for indigenous community members as social change agents" p. 154. "Employing indigenous community members for a service role with patients is demonstrated by the comparable and even somewhat more favorable impact of enables over professional staff on treatment outcome" p. 148.

Linn, Caffey and Klett (1977) studied 572 chronically

mentally ill patients from five different Veterans Administration Hospitals. The patients were randomly assigned to foster care homes outside the hospital (experimental group) or to continued hospital care (control group). A large number of the foster care patients were excluded after random assignment because their condition had deteriorated. This made for considerable differences between the experimental and control groups. Patients in the experimental group had fewer hospitalizations and a lower prevalence of alcoholism and chronic brain syndrome. They also differed significantly from the control patients on a measure of potential for community living.

Four months after placement, the experimental subjects showed significant improvement over controls in social functioning and overall adjustment. The authors conclude that foster care placement was associated with this improvement, but Braun, et al, suggest the deficiencies in the study may have distorted the results.

Braun and associates also reviewed studies at Soteria House by Mosher, et al, (1975, 1978). In this study, the experimental patients lived in a small homelike facility staffed by paraprofessionals. The control patients were admitted to the inpatient service of a community mental health center. The patients were unmarried, mostly young and experiencing their first episode of schizophrenia. All control subjects received neuroleptic medication in an active-treatment facility with a staff-patient ratio of 1.5 to 1. Controls also received aftercare upon discharge.

The experimental subjects received significantly less neuroleptic medication before discharge (17% versus 100%) and after discharge, as well as less outpatient care after leaving the house. In a two-year follow-up, experimental subjects showed less global symptomatology and better community psychosocial adjustment than controls. The experimental group also showed higher occupational levels and more frequently lived independently. Finally, the experimental subjects tended to have fewer readmissions than the control subjects.

A fourth study reviewed by Braun, et al, (Polak and Kirby, 1976) reduced the need for psychiatric beds in southwest Denver to 1/100,000 population. The experimenters assigned clients randomly to a home (experimental group) or to the hospital (control group). The same clinical team provided treatment to both groups and no criteria was set for exclusion of clients. The experimental group received treatment in small, diversified, community-based social environments. These environments included private homes housing no more than two clients. Each home was backed up by psychiatric nurses and a psychiatrist on 24-hour call. An observation apartment staffed by a psychology student and his wife provided 24-hour supervision for clients requiring more intensive care. A variety of socialization activities, such as craft groups, were also provided. Finally, psychiatric hospital beds were used as a back-up to all of these environments. Major emphasis was placed on home visits, immediate crisis service, social systems

intervention, and rapid tranquilization. Outcome measures completed by clients and community informants at a four month follow-up indicated that community placement was more effective than psychiatric hospitalization ($p < .05$) on four measures. Of the first 48 clients assigned to the original home group, ten could not be treated in the home because they became overly violent or suicidal. While the authors claim that the similarity between home and hospital groups actually increased after these ten clients were removed from the experimental group, these "broken design" clients raise questions as to the study's conclusions.

The last study (Linn, Caffey and Klett, 1980) reviewed by Braun, et al, to be discussed here, studied the characteristics of foster homes producing different outcomes. Patients whose current hospitalization averaged 45 months were randomly assigned to foster care homes or continued hospitalization. Results for foster care placed patients indicated that (a) the greater the total number of people in the home, the more likely the patient was to deteriorate ($p < .01$); (b) the greater the number of patients in the home, the more likely the patient was to deteriorate ($p < .05$); (c) the presence of children in the home was more likely to lead to improved functioning ($p < .05$); (d) a higher degree of sponsor-initiated activities in the home led to improvement in nonschizophrenics, but deterioration in schizophrenics; and (e) greater supervision was also associated with nonschizophrenics' improvement and schizophrenics' deterioration. After one year of placement, the

rehospitalization rate for foster care patients was 38%, compared to a national average of almost 50%.

In a nonexperimental descriptive study of community care for the deinstitutionalized mentally ill, Datel, Murphy and Pollack (1978) found that rural residental placements produced nearly twice as many community tenure days as urban placements. It was also found that when readmitted to the hospital, rurally-placed clients spent about half as much time in the hospital as did urban-placed clients.

An interesting study by Lamb and Goertzel (1971, 1972) studied high and low expectation environments. Hospitalized patients were randomly assigned to a halfway house with day care and vocational rehabilitation (high expectation) or to a boarding home (low expectation). Patients assigned to the high expectation environment maintained a higher level of function and activity, but also returned to the hospital at a greater rate than the patients in the low expectation environment. The authors felt this was due to the greater demands placed on the high expecatation group. The authors, nevertheless, recommended the high expectation environment over the low expectation environment, which they believed closely resembled the hospital back ward. The authors concluded that patients placed in low expectation environments were not really in the community.

A study examining length of stay in sheltered care was conducted by Johnson, Glick and Young (1980). This study examined the relationship between size of a placement

setting and movement out of the facility. Information was collected on 15 facilities divided into small (capacity of six or less), medium (seven to 15), and large (16 or over) settings. After 12 months, Chi-squared analysis showed that patient tenure was associated to a highly significant degree ($p < .001$) with the size of the facility. Patients in larger facilities stayed longer. Patients in smaller facilities moved more often. Unfortunately, the authors did not obtain information as to where or why these patients moved. The authors suggest that larger facilities may allow more distance and the intensity of interpersonal relationships may be less demanding. This interpretation is questionable, however, since there is no way to judge whether these moves were the result of a "success" or "failure."

Several studies have examined the characteristics of family care sponsors in foster homes.

Giovannoni and Ullman (1961) found the best predictor of successful placement was not the length of prior hospitalization, as found in other studies (Ullman and Berkman, 1959; Lee, 1963; Lyle and Trail, 1961), but the presence of a male in the foster care home. The male figure did not have to be a positive role model, but his existence was crucial. Bloom (1976), in a survey of 28 home operators in Canada, found that married operators were more effective than those who were unmarried. Mendelsohn (1964) found that the more successful home operators stressed money in their decision to use their home for patient placement. Successful

homes also utilized group meetings and contained from one to six patients. Finally, Tcheng-Laroche, Murphy, and Engelsmann (1976) found successful home operators maintained clear and firm rules.

Brown (1959), in a study also cited under the individual characteristics section, studied 156 chronic schizophrenics to determine which of a variety of environments contributed to their success a year following discharge. Success was determined by lack of rehospitalization and social adjustment in terms of employment, social interaction and need for supervision. Failures were highest in patients who went to boarding homes, their parents or their spouses. The lowest failures were those who went to a lodge or to live with a sibling. The author concluded that patients may do better in a less personal environment that is more socially demanding and not as protected as living with parents or spouses.

Rog and Raush (1975) examined 26 studies of halfway houses and found measures of success varied considerably, as did selection of residents. Houses also varied in average length of stay, from 1½ months to 30 months, and in terms of the stage of rehabilitation at which the studies were conducted. Control groups were utilized in only two studies.

Median figures showed that 79.5% of the residents adjusted to community living, 58.3% were living independently in the community and 55.2% were employed or in school. Only 20.5% of the halfway house residents required

rehospitalization. The authors concluded that the results suggest that an expatient's chance of being readmitted to a mental hospital are less after living in a halfway house.

One of the controlled studies included in the Rog and Raush (1975) survey (Gumrukcu, 1968) matched 15 ex-residents of a halfway house with 15 patients who entered the community directly from the hospital. The groups were matched by sex, age, educational background, degree of "illness," and date of release from the hospital. After a year, no halfway house residents were rehospitalized, while three control group members required hospitalization. Ten former halfway house residents obtained sustained employment, as compared to four controls.

The other controlled study in the Rog and Raush (1975) survey (Rutman, 1971) randomly assigned patients determined to require hospitalization to hospitals or a halfway house. At the end of 18 months, the group showed no differences in terms of job adjustment, living arrangement, or financial dependency. Rehospitalization rates following discharge were about 20% for both groups within the 18 month period. The author implies in his conclusions that the halfway house can serve as a substitute for rehospitalization.

TABLE 2.1.--Summary of Studies Examining Characteristics of Residential Programs Associated with Community Adjustment and/or Tenure.

Variable	Study
Number of Patients in Facility	Johnson, et al, (1980) Cunningham, et al, (1969) Mendelsohn (1964) Linn, et al, (1980)
Total Number of People in Facility	Linn, et al, (1980)
Sponsor Initiated Activities	Linn, et al, (1980)
Degree of Supervision	Linn, et al, (1980)
Group Meetings	Mendelsohn (1964)
High Expectancy Environment	Lamb, et al, (1971, 1972)
Clear, Firm Rules	Tcheng-Laroche, et al, (1976)
Day Center	Cunningham, et al, (1969)
Employment	Cunningham, et al, (1969)
Vocational Rehabilitation	Cunningham, et al, (1969)
Rural Setting	Datel, et al, (1978)
Male Sponsor	Giovannoni, et al, (1961)
Married Operators	Bloom (1976)
Presence of Children	Linn, et al, (1980)

TABLE 2.2.--Summary of Studies Finding Residential Programs Superior to Other Placements on Measures of Adjustment or Community Tenure.

Residential Programs	Other Placements	Studies
Lodges, Siblings	Boarding Homes, Spouses Parents	Brown (1959)
Foster Homes	Hospitalization	Linn, et al, (1980)
Halfway House	Boarding Home	Lamb, et al, (1971, 1972)
Foster Care Home	Hospitalization	Linn, et al, (1977)
Homelike Facility	Active Treatment Hospital	Mosher, et al, (1975, 1978)
Halfway House	Direct Discharge to the Community	Gumrukcu (1968)
Halfway House	Hospitalization	Rutman (1971)
Small, Diversified Community-Based Program	Hospitalization	Polak, et al, (1976)

Summary

The literature reviewed in this section has considered residential program characteristics relationship to patient outcome. The literature has shown that such factors as the number of patients residing in a facility may have a relationship to community adjustment or tenure. Other factors such as the amount of sponsor-initiated activities and whether the program is a high or low expectancy environment may also influence patient outcome. Different residential facility models such as boarding homes, foster care homes and halfway houses have also been studied and compared.

Research designs and methodologies used have made generalizing results difficult. Differences in patient populations, geographical location, outcome criteria and length of follow-up also make comparisons difficult.

The studies reviewed do not address the process of returning patients to the community nor do they address integration into the community or satisfaction with the environment. Program characteristics are described in terms such as active treatment, socio-environmental treatment or community treatment without clearly enumerating the essential components of such programs. The generalization or duplication of these poorly described programs is tenuous, at best. There remains a need for descriptive research which attempts to identify significant treatment factors which are generalizable and allow for replication elsewhere.

Research on Residents' Characteristics

This section will focus on patient characteristics and background factors previously associated with patient outcome in residential programs.

The first question pertaining to the residential placement of chronically mentally disabled patients might be whether or not mental patients will stay in the community. This was the question asked in a study by Drake and Wallach (1979). They studied 110 hospitalized, functionally psychotic patients who were judged by staff to be well enough to care for themselves and well enough for discharge to be realistically possible. The subjects were rated by ward technicians, social workers and an observer from outside the hospital as to their preference for living in the hospital or in the community. Analysis of variance showed that individual living preference ratings showed strong relations ($p < .001$) to past community tenure and to prospective community tenure (9 month follow-up), even when past community tenure was held constant. The authors ruled out the possibility that living preference ratings were really based on past community tenure, rather than on the patient's behavior in the present, since the observer had no knowledge of past community tenure. The possibility that living preference ratings were really based on psychopathology was also unlikely, because all the subjects were functioning relatively well and capable of leaving the hospital.

Another study examining patient's living preference and its influence on outcome in residential placement was conducted by Nevid, Capurso and Morrison (1980). They studied 32 ex-hospital patients living in ten family care homes. The study was an attempt to determine whether real-ideal similarity in patient judgments about their foster or family care home was related to their satisfaction with the home and with their adjustment to community living.

The Community-Oriented Program Environmental Scale (COPES), a 100-item, true/false questionnaire (Moos, 1974b) was administered to each patient. Patients were asked to indicate their present or real conditions and also their preferred or ideal conditions. In addition, patients were asked to rate their family care homes on four-point scales, measuring (a) their general satisfaction with the home, and (b) the overall quality of the home. Family caretakers and primary therapists were asked to rate the patients on four-point scales, measuring (a) adjustment to the home, (b) level of social functioning, and (c) expectations of future community adjustment.

Finally, the Katz Adjustment Scale (Katz and Lyerly, 1963) was completed by family caretakers to assess patients' adjustment to community living and degree of overt behavioral pathology.

The study supported previous findings (Moos, 1974b) that patient-judged real-ideal similarity of the treatment environment is positively and significantly related to their satisfaction with the treatment program ($.44 \leq r \leq .73$, $M = .59$).

Overt psychotic behavior and socially obstreperous behavior were found to be generally lowest in treatment conditions in which the judged real environment came closest to the patient's view of ideal conditions. The authors concluded that "the degree to which treatment environments match patient expectations, may predict successful adjustment to the community program" (p. 119).

In a related study, Lamb (1980) compared patients who did not remain in a residential placement with those who did remain.

Lamb found, at a six month follow-up, 32 of 101 psychiatric patients in a board-and-care home had moved on. Ten were living independently; nine had moved to another board-and-care home; seven had returned to their families; two left to live with a boyfriend or girlfriend; one was in a drug rehabilitation program; two had moved to a half-way house; and one person could not be located.

Lamb found that of those who left, (1) 69% had resided at the board-and-care home for 12 months or less, while only 22% of those who remained had resided there for 12 months or less; (2) 34% of those who left were under 30 years of age, while only 12% of those who remained were under 30 years of age; (3) 69% of those who left had goals or a desire to change something, whether realistic or not, while 38% of those who remained had goals; (4) of those who left, 47% had been hospitalized in the previous year and 23% of those who remained had been hospitalized during the previous year. Lamb suggests that while there are

always legitimate reasons to move, many of those who moved may have been resisting the pull of dependency. Another possible explanation is that this group was less psychiatrically stable, and their move could have been an attempt to relieve symptoms and conflicts.

Other studies have found that length of hospitalization or number of hospitalizations are associated with tenure or adjustment in community residential placements. Their findings have varied, perhaps in part, due to the fact that they have examined a variety of residential programs.

Sandall, Hawley and Gordon (1975) studied 72 apartment graduates and found that apartment residents who left apartments for more structured and supervised environments had been in hospitals for a quarter the length of time. On the other hand, Baganz, Smith, Goldstein, and Pou (1971) found successful placements in a YMCA had less prior length of hospitalization (5.3 years versus 9.1 years).

In another study examining still another type of residential program, Johnston (1974) used halfway house residents in an investigation of residents' personal characteristics related to success in independent living in the community. Extensive demographic data was collected on all clients admitted (n=70) and discharged (n=60) from three halfway houses over a six month period. Data was also collected on clients who had already been discharged for six months (n=41). Only two variables were found to be significant in regard to length of stay in a program or

future success in the community. These two variables were the number of prior hospitalizations and the total number of days hospitalized with community success having fewer hospitalizations and fewer days in the hospital ($p < .05$).

Similar findings were reported by Lee (1963) in a study that examined yet another type of residential program, family care homes. Lee found that patients who were not rehospitalized after placement had a quarter the length of prior hospitalizations than those who were hospitalized. This was the only significant variable found to effect rehospitalization.

Studies have found a variety of variables such as age, prior history of hospitalization, diagnosis, and living preference to be significantly related to community tenure or adjustment, or both. These variables have not been found to be significant in all studies, and results have not always been consistent.

Lyle and Trail (1961) found the patients making successful adjustment to foster homes were: older, schizophrenic, advocated recreational interests and were not as interested in leaving the hospital as those who did not adjust well to the foster home. Ullman and Berkman (1959) studied characteristics of foster home patients and found that greater length of total hospitalization was associated with patients who adjusted successfully to the home and remained or moved on to greater independence. Patients who stayed briefly and were rehospitalized were characterized by smaller periods of hospitalization.

However, Simon, Heggestad and Hopkins' (1968) study of successful placements in foster homes did not support those of Lyle and Trail (1961) and Ullman and Berkman (1959). Simon, et al, found successful foster home placements were older at the time of their first hospitalization, had a shorter period between hospitalization and placement, and had fewer prior admissions. Patients who were less chronic showed better post-hospital adjustment. Simon, et al, state that their failure to support the earlier findings could be due to a shortage of younger patients in their study.

Another study finding a negative correlation between length of community tenure and prior hospitalization in a different setting, was conducted by Cunningham, Botwinik, Dolson and Weickert (1969). They conducted a five-year follow-up study of halfway house residents and found that only 40% remained in the community for two years. The majority were rehospitalized within one year and tended to be the patients with less prior hospitalization. Successful placements were more involved in employment, vocational rehabilitation or day center, were single and were located in large halfway houses.

Brown (1959) studied 156 chronic schizophrenics a year after discharge. Patients were placed in a variety of environments ranging from lodges to boarding homes to parents or spouses. Results showed that the length of prior hospitalization had no relationship to rehospitalization; however, those with more prior hospitalizations

were more socially adjusted in terms of employment, social interaction or need for supervision. There was also a tendency for older patients to have lower hospital reentry rates and greater social adjustment.

Lamb and Goertzel (1977) followed 99 severely disabled individuals (determined by support from Supplemental Security Income), and, like Brown (1959), found older subjects were rehospitalized less than those who were younger.

One study has taken a unique approach to the question of post-hospital adjustment. Steinberg, Yu, Brenner and Krieger (1974) used Rotter's Locus of Control Scale (Rotter, 1966) to predict independent functioning as measured by a scale containing items relating to such behavior as employment, handling money, preparing food, and having friends. The subjects were 112 schizophrenics who constituted five groups: (1) 25 patients in their first week of hospitalization; (2) 25 chronic patients who had spent at least one year in continuous hospitalization; (3) 18 former chronic patients who had been residing in apartments for more than 12 months; (4) 30 former chronic patients who had been living in boarding homes more than 12 months; and (5) 14 chronic patients who were tested prior to discharge from the hospital and again after living in apartments for from one to seven months.

Locus of control scores (I-E scale) failed to discriminate among any of the groups tested and scores did not change over time. There were, however, significant negative correlations between I-E scores (the higher the score, the

more external the locus of control; the lower the score, the more internal the locus of control) and independence scores for patients living in apartments for more than one year ($r=-.67$, $p < .005$). Furthermore, I-E scores predicted level of independent functioning for apartment patients out of the hospital less than one year ($r=-.52$, $p < .025$). The authors concluded that the I-E scale may correlate with and predict level of independent functioning for schizophrenics in situations where behavior is more free to vary and that it might be useful in determining appropriate placement for patients leaving a mental hospital.

TABLE 2.3.-- Summary of Studies Examining Characteristics of Individuals Served in Residential Facilities and Their Effect on Community Adjustment and/or Tenure.

Variable	Study
Number of Prior Hospitalizations	Johnston (1974) Simon, Heggestad and Hopkins (1968) Cunningham, Botwinik, Dolson and Weickert (1969) Brown (1959)
Length of Prior Hospitalization	Sandall, Hawley and Gordon (1975) Baganz, Smith, Goldstein and Pou (1971) Johnston (1974) Lee (1963) Ullman and Berkman (1959)
Age	Lamb (1980) Lyle and Trail (1961) Simon, Heggestad and Hopkins (1968) Brown (1959) Lamb and Goertzel (1977)

TABLE 2.3.--continued

Variable	Study
Marital Status	Cunningham, Botwinik, Dolson, Weickert (1969)
Diagnosis	Lyle and Trail (1961)
Residential Stability	Lamb (1980)

Summary

The literature reviewed has considered patient characteristics and background factors in relation to patient outcome in residential settings. As noted earlier, few studies employed control groups or random assignment. The literature has shown that some variables have been more frequently involved in assessing residential outcome than others. Number of prior hospitalizations, length of prior hospitalizations and age are the three variables which have been most often associated with outcome in the studies reviewed (See Table 2.3).

The studies reviewed have not always shown the same variables to be significant and the effect of a variable has not always been in the same direction. These differences may, in part, be due to the different follow-up periods, different outcome criteria, different populations studied, and the different methodologies used. Differences may also be related to the interaction between individual and background factors with differeing residential programs

ranging from foster homes to halfway houses to lodges, etc.

Clearly, there remains a need for descriptive research which provides an understanding of the process of returning patients to the community and which focuses on the quality of patient life and satisfaction with the environment.

CHAPTER III

DESIGN OF THE STUDY

The purpose of this section is to present the design of the study. The following sections are included: selection and description of the subjects, description of residential settings, measures, procedures for collecting the data, statistical hypothesis, research design and analysis.

Selection and Description of the Subjects

The subjects in this study were residents of supervised homes or supervised apartments for the mentally ill connected with the Clinton, Eaton, Ingham Community Mental Health Board. Residents in these programs were also clients of Community Mental Health and eligible for a variety of aftercare services. Nearly all residents were considered to be chronically mentally ill. Most residents were diagnosed as schizophrenic and had a history of multiple psychiatric hospitalizations. Nearly all residents received some sort of government financial assistance due to their illness.

All residents in supervised living programs during the week of May 21, 1984 were considered as potential subjects. Each resident was asked to participate in the study and

was given a consent form. Residents agreeing to participate were asked to complete the questionnaires.

Eighty-six beds were available in the eight homes and 31 beds were available in the ten apartments. The residents occupying these 117 residential beds provided a maximum of 117 potential subjects. However, at the time the data was collected, only 96 beds were occupied reducing the actual number of possible subjects from 117 to 96. Seventy-eight (78) residents or 81% of the possible number of subjects participated in the study. No analysis for differences between residents who refused to participate and those who agreed to participate was conducted due to the large percentage (81%) of residents participating. Table 3.1 presents demographic data for all 96 possible subjects. Appendix L, page 148 presents a summary of resident's characteristics by residential setting.

TABLE 3.1.--Demographic Data for Population

Variable	Number of Subjects	Percentage
Sex		
Female	49	51.0
Male	47	49.0
Race		
Caucasian	84	87.5
Black	9	9.4
Hispanic	2	2.1
Bi-racial	1	1.0
Marital Status		
Single	72	75.0
Divorced	23	24.0
Married	0	0.0
Widowed	1	1.0
Diagnosis		
Schizophrenia	60	62.5
Personality Disorder	13	13.5
Affective Disorder	9	9.4
Schizo Affective	9	9.4
Retardation	3	3.1
Organic Brain Syndrome	1	1.0
Adjustment Disorder	1	1.0
Current Day Program		
None	26	27.1
Job	5	5.2
Volunteer Work	5	5.2
School	2	2.1
Vocational Training	19	19.8
Day Treatment	26	27.1
Other	6	6.3
More Than One of Above	7	7.3
Age		
Mean[a] = 33.9		
S.D. = 12.0		
Range = 18 - 70		
Educational Level		
Mean = 11.8		
S.D. = 2.1		
Range = 7 - 18		

TABLE 3.1.--continued

Variable	
Number of Psychiatric Hospitalizations	
	Mean = 4.6
	S.D. = 3.3
	Range = 0 - 19
Year of First Hospitalization	
	Mean = 1970
	S.D. = 15.7
	Range = 1948 - 1983
Year of Most Recent Hospitalization	
	Mean = 1979
	S.D. = 14.6
	Range = 1967 - 1984
Total Months Hospitalized	
	Mean = 33.4
	S.D. = 69.8
	Range = 0 - 404
Number of Months in Present Residential Setting	
	Mean = 10.0
	S.D. = 9.4
	Range = 0 - 42
Amount of Weekly Spending Money (in dollars)	
	Mean = 16.9
	S.D. = 15.8
	Range = 0 - 54

[a] Standard Deviation

Description of Residential Settings

The Clinton, Eaton, Ingham Community Mental Health Board maintains a comprehensive residential housing program. A continuum of living situations are provided, allowing the freedom to place clients in settings that, hopefully, match

their needs. These settings range from highly dependent and structured, with large amounts of staff intervention, to supervised apartment settings with minimal structure and less frequent staff contact. The different settings are examined in greater detail below, starting with the most dependent settings, and proceeding to less dependent settings.

ABBOTT HOUSE

DESCRIPTION

Abbott House is an eighteen (18) bed "Room and Board" facility. The house is open and staffed 24 hours a day by CMH employees. The house is "double-staffed" at all times, except overnight.

PHILOSOPHY

The house is designed to provide a pleasant and supportive environment with a minimum of structure. Services provided include: two prepared meals a day (residents prepare their own breakfast), help holding and monitoring medication, help budgeting spending money (if necessary), and six hours a day of structured activities.

Residents are required to meet only minimal expectations. The few expectations enforced include: no violence, no property destruction, acceptable personal hygiene, and compliance with taking prescribed medications. Unlike other houses, the program does not usually require Day Treatment attendance, household chores, or peer group meetings.

ACTIVITY PROGRAM

A full time activity aide offers residents 24 hours per week of structured day time activity. Activities include: crafts, discussion groups, group outings, cooking, games, and just about everything residents wish to help plan. These groups help give residents the positive feelings of constructive activities.

ANNEX

Three of Abbott House's 18 beds are actually located in the Abbott Annex, two blocks away from the house. Annex residents do their own housekeeping, purchasing and most of their own cooking. They may choose to purchase meals from the house or to make their own. Other house services offered include: socialization, support, medication monitoring, help with budgeting, and activity groups. House staff also help Annex residents run a house meeting each week.

COOK PROGRAM

The cooking and cleaning at Abbott House is done by Community Mental Health clients. This meets the physical needs of the house, while giving gainful employment to other clients. Cooks are supervised by the house business aide. This allows for regular supervision, evaluation, and the potential for placement in competitive employment.

HYATT & EUREKA AFC HOMES

Hyatt and Eureka Houses are both 12 bed licensed Adult Foster Care Homes, providing room and board, and 24 hour

supervision. Both homes are located in rural areas. Programming is provided outside the homes, and clients who are unable to attend day programs may remain in the home during the day, as there are staff available at all times. Length of stay is dependent upon client needs. Staff prepare meals and hold and monitor medications. There are no regular resident meetings.

WHISPERING PINES

DESCRIPTION

Whispering Pines is a twelve (12) bed, private Adult Foster Care Home, on contract with Community Mental Health Board. Staff consists of a full time manager, and 5 additional aide staff. The house is "double staffed" from 3:30 to 11:00 p.m. on weekedays, plus all weekend.

PHILOSOPHY

The house program is structured to gently encourage independence, while allowing a resident to be more dependent, if needed. The program teaches and encourages basic living skills, by asking residents to help with cooking, cleaning, laundry, and other household responsibilities.

While in Whispering Phines, residents are expected to see a case manager/therapist weekly, attend day programming daily, and keep medication appointments. House staff help residents by reminding them of appointments and holding medication.

JEROME AND OASIS AFC HOMES

DESCRIPTION

Both Jerome and Oasis homes are licensed Adult Foster Care Homes. Each house is open from 3:30 p.m. to 9:00 a.m., Monday

through Friday, and 24 hours on weekends and holidays. During these times, they provide room, board, and client supervisions.

Jerome House is a 6 bed facility. Oasis provides 9 beds. Each house is operated by Community Support Services employees. Staff consists of a full time manager, two full time afternoon/evening aides, and two full time over-night aides. In general, both houses are "double staffed" from about 3:30 to 8:30 p.m., and "single staffed" the rest of the evening, plus weekends.

PHILOSOPHY

House programing is structured to enable the greatest possible independence for each resident, and to help each resident learn and deal with the responsibilities of community life. Residents learn skills and confidence in daily living skills by doing house chores, such as: cooking, vacuuming, and meal clean-up, etc.

Residents are expected to attend day programing. Once familiar with public transporation, residents must take the bus to day programing, medication appointments, and therapist appointments.

STEP SYSTEM

It is difficult to expect this sort of independence from clients who function at many different levels. To allow for these differences, both houses have a Step Level Program which allows residents to move both up and down six step levels, as their needs and desires change. A low step level means lower responsibilities and also lower privileges. For example, a client on Step Level One gets reminded to do chores, reminded to get up in the mornings, and gets his/her money

on a daily basis. On the other hand, a high step level means large amounts of responsibility, and also greater privileges. A resident who gets to Step Level Six may come and go as he/she pleases, will handle money on a monthly basis, and is never reminded by staff to do chores. The move from Step Level One to Level Six may take as little as a couple of months, or as long as years.

GROUP SYSTEM

One of the most important features of both Oasis and Jerome House is the fact that residents are in charge of making many of the decisions. The residents meet three times a week to handle problems, plan acitivites, change step levels, and give each other support. Problems are handled mainly through a problem note system. When problems occur, a note is written by residents or staff. At meetings a solution is arrived at (anywhere from a penalty job to a discussion and warning). Staff intervention in the group process is mainly limited to offering weekly feedback to the group and resubmitting problem notes inadequately dealt with by the group.

TRANSITIONAL LIVING HOUSE (TLH)

DESCRIPTION

TLH is a six month time limited program, with room for nine clients. The house is open for clients from 3:30 p.m. to 10:00 a.m., weekdays, and all weekend.

The house is staffed by a full time manager, who works primarily days, and by two resident aides who work afternoon/evenings and weekends. The facility is not licensed and no regular staffing is provided overnight.

PHILOSOPHY

TLH provides a setting for clients to develop living skills and a knowledge of community resources (housing, schooling, employment, etc.). Since time is limited a specific five step level system helps clients make the decisions and gather the resources to live independently. When clients move in, they must agree to: (1) participate in the group decision making process; (2) work on the step system; (3) follow house rules; (4) hold and take their own medication; and (5) make financed room and board payments.

STEP SYSTEM

To aid the progresson to independent living, each resident has his/her own Step Program handbook. The handbook outlines five (5) step levels, and uses worksheets and check-offs to help the client achieve a variety of objectives. To move from Level 1 to Level 2, for instance, a resident has to do things like: apply for financial assistance, do a "heavy cleaning" job, and ride the buses to two different places. To move from Level 4 to Level 5, a resident must supervise at least 5 grocery trips, plan at least 1 meal per week, plan and organize a recreational activity, and develop an independent living monthly budget (actually, these are only some of the things needed to move from Step 4 to Step 5).

GROUP SYSTEM

Residents meet five times a week (once with staff present) to make decisions and solve problems. Problems discussed range anywhere from an undone chore, to personal problems, to broken rules. Group members are expected to make a written "problem

note" when they see a problem, then submit it for later group discussion.

When a client is clearly not meeting the requirements to live in TLH, the group may put the client on "contract." This usually gives the client a specific period of time to work on problem areas. When the time is up, and if the client made little effort to correct the problem, the group may ask him/her to leave TLH. This decision is made with staff feedback, and is usually used as a last resort, as few residents want to "kick out" a fellow resident who has a problem or problems.

HIGH STREET

DESCRIPTION

High Street is a nine (9) bed group living situation. Residents are charged rent only. They shop for their own food and do their own cooking. They hold house meetings during the week to solve group problems and divide up the tasks of cleaning. Staff spend about 40 hours a week at the home, including weekends, and work basically as consultants. There are some group activities, outings, and assistance with shopping, etc. Requirements to participate in constructive day activities is decided on a case by case basis, with the resident working the details out with their case manager.

SUPERVISED APARTMENTS

DESCRIPTION

This is a program of semi-independent living that is

tied into the Residential Case Management Unit. The apartments consist of houses, 2 to 5 bedrooms, scattered through the city. Each house has a primary contact person who holds a house meeting with the residents once a week. These meetings are designed to work on interpersonal problems that exist in any group living situation. Residents of the program are required to pay rent, participate in a constructive day activity, be responsible house mates and good neighbors. There are regularly scheduled shopping trips, laundry trips, and evening social acitivites for members of this program.

This program is designed to follow up on gains made in some of the more structured residential homes. This program is tied into the Case Management Unit with various staff responsible for at least one supervised apartment.

Measures

Five forms of instrumentation were utilized in the study; these included: (a) Personal Data Sheet, (b) Residential Program Characteristics Scale; (c) Community-Oriented Program Environmental Scale (COPES) (Moos, 1974b); (d) External Integration Scale (Segal and Aviram, 1978); and (e) Consumer Response Scale (Segal and Aviram, 1978).

Personal Data Sheet

As the review of the literature has shown, various individual and background characteristics of residents in supervised settings have been associated with resident outcome. In this study, a data sheet was used to elicit this information in order to describe the subjects.

The data sheet was designed to gather the following information about each resident: resident's age, sex, race, educational level completed, marital status, diagnosis, number of psychiatric hospitalizations, total length of time hospitalized, number of years since first hospitalization, date of most recent hospitalization, tenure in their present supervised living placement, amount of spending money available to client, and current enrollment in a job, school, or rehabilitation program (see Table 3.1).

The data sheet was completed by the resident's Case Manager in the Community Mental Health (CMH) system.

1. Item Development

Items for the Personal Data Sheet were selected on the basis of previous research findings. Those individual characteristics of residents most often associated with patient outcome in earlier studies were included.

2. Reliability and Validity

The reliability and validity of the Personal Data Sheet in this study was undetermined and beyond the scope of the present study. The actual reliability of the information obtained by use of the

Personal Data Sheet was assumed to be comparable to information currently utilized in psychiatric facilities.

Residential Program Characteristics Scale

The literature reviewed has described residential programs in only the broadest terms, i.e., foster care homes, halfway houses, supervised apartments.

In this study, the Residential Program Characteristic Scale was one of the instruments used to describe programs and how they vary, in greater detail.

The Residential Program Characteristic Scale consisted of three scales designed to measure: (1) the degree of Structure in a program; (2) the degree of Resident Responsibility/Independence permitted or encouraged by the program; and (3) the degree of Staff Supervision.

Items making up these scales focused on program characteristics which were fairly discrete and easily modifiable. They included program characteristics, such as curfews, residents controlling their own money, staff supervising medication, etc.

These scales were completed by the staff of each house or by the staff person supervising each apartment.

1. Item Development

Items for the Residential Program Characteristic Scale (RPCS) were generated by the researcher and CMH staff knowledgeable in the area of residential

placement. Items judged to be behaviorally descriptive of program factors, modifiable, and useful in differentiating between various programs were considered for use.

Items were then grouped according to conceptual compatability, arriving at the present three scales.

2. Reliability

Coefficient alpha was used as a measure of reliability for the RPCS. Coefficient alpha is a measure of equivalence and internal consistency. The RPCS was administered to 43 house staff and apartment supervisors participating in the present study. Cronbach's alpha was used to determine the internal consistency of each subscale. Results showed an alpha of .82 for Structure; .84 for Independence/Autonomy; and .93 for Staff Supervision. These results suggest that the RPCS had strong reliability in the present study.

3. Validity

The RPCS has face validity and content validity. Content validity is the degree to which scale items represent the content which the scale is designed to measure. Content validity for the RPCS has been provided by developing items around specific objectives and sampling a large number of items suggested by knowledgeable persons.

Construct validity is the extent to which the scale measures the hypothetical constructs involved.

This type of validity is difficult to attain. Some construct validity was achieved because the RPCS was able to differentiate between residential programs (see Chapter IV, page 74, Hypothesis 2).

Community-Oriented Program Environmental Scale

The Community-Oriented Program Environmental Scale (COPES) was developed by Moos (1974b) to assess the social environments of community-based psychiatric treatment programs, e.g., halfway houses, community care homes or day programs. In its present form, the scale is a 100-item, ten-subscale instrument. A short version with 40 questions is also available and was utilized in the present study. The first three subscales, Involvement, Support and Spontaneity, are conceptualized as measuring Relationship dimensions. These three subscales assess the extent to which staff support members and members support and help each other, and the amount of spontaneity, or free and open expression, existing within these relationships (Moos, 1974).

The next four subscales, Autonomy, Practical Orientation, Personal Problem Orientation, and Anger and Aggression, are conceptualized as Personal Development, or Treatment Program, dimensions (Moos, 1974b).

The last three subscales of Order and Organization, Program Clarity, and Staff Control are conceptualized as

assessing System Maintenance dimensions (Moos, 1974b).

These scales were completed by participating residents of each program in the present study.

1. Item Development

Most items on the COPES were adopted from the Ward Atmosphere Scale (WAS)(Moos, 1974a). The WAS was developed to measure social climates of psychiatric treatment programs as perceived by patients and staff. The theories of environmental press developed by Murray (1938) and Stern (1970) provided the original basis for the WAS. Additional items for the COPES were formulated from program descriptions and interviews of patients and staff in various community programs. A resulting 130-item form of the COPES was administered to members and staff in 21 community-oriented treatment programs (day centers, residential centers, community care homes, etc.). Tested in the 21 programs were 373 members and 203 staff. The current ten-subscale form of the COPES was derived using the following criteria:

a. Each subscale should have acceptable internal consistency, and each item should correlate more highly with its own than any other subscale. Two of the original 12 scales were dropped because they did not meet this criteria. Internal consistencies were calculated using Cronbach's α and average-within-program item variances.

b. When possible, not more than 80%, nor less

than 20%, of subjects should answer in one direction. This criterion was set to avoid items characteristic only of extreme programs. Ninety-five percent of COPES items meet this criterion.

c. There should be approximately the same number of items scored true as scored false within each subscale, to control for acquiescence response set.

d. Items should not correlate significantly with the Halo Response Set Scale, a scale developed to assess both positive and negative halo in program perceptions and given to members and staff.

Last, means and standard deviations on all subscale scores were calculated for each program, separately, for members and staff. The results of one-way analysis of variance indicated all ten subscales differentiated among the original 21 programs at $p < .01$ for all subscales for members and for nine of ten subscales for staff.

The short version (40 questions) of the COPES was utilized in the present study. Correlations between the short version and the full length (100 question) version of the COPES were above .75 for 14 of the original 21 programs for both members and staff scores. The lowest correlation (.68) was for members. The ten subscales of the COPES measure distinct, although correlated characteristics of member and staff perceptions of community-based programs (Moos, 1974b).

2. Reliability

Internal consistencies (Kuder-Richardson formula 20) for the initial group of 21 programs were calculated following Stern (1970) using average within-program item variances. The subscales have acceptable internal consistency, with a mean of .78 for staff and a mean of .79 for members. Item-to-subscale correlations are moderate to high average, with a mean of .47 for staff and a mean of .41 for members.

The intercorrelations of the ten subscale scores have been calculated for the same original 21 programs. The highest intercorrelation is .50, and the only cluster of subscales showing even moderate intercorrelations in both member and staff samples was composed of the Relationship dimension of Involvement, Support, and Spontaneity.

Test-retest reliability has not been calculated for the COPES; however, test-retest reliability analysis for the WAS has been satisfactory. Since the content and the structure of the ten COPES and the ten WAS subscales are directly parallel, these results may be generalized as applicable to COPES (Moos, 1974b).

3. Validity

The COPES construct validity is strengthened by the fact that the results of one-way analysis of variance indicates that all ten subscales significantly differentiated among the original 21 programs

for both member and staff responses. The actual proportion of subscale variance accounted for by differences among programs was ascertained by estimated Omega-Squared (Hays, 1963). The percentages varied from a low of five percent on the Practical Orientation subscale for staff to a high of over 50 percent on both the Autonomy and Order and Organization subscales for staff. These results may, of course, vary greatly, depending on the particular sample of programs studied.

Further evidence for the validity of COPES is that patient and staff perceptions measured by the WAS are only minimally, if at all, related to their tendency to answer in socially-desirable directions. The Crowne-Marlowe Social Desirability Scale and the Social Desirability subscale of the Ward Initiative Scale (WIS) were used in a study of patients in four different state hospital wards. There was a slight positive relationship between the Crowne-Marlowe and the WAS Relationship Dimension (average $r = .12$). The Crowne-Marlowe was not correlated with other WAS dimensions. Finally, staff who answered in a socially-desirable direction had a slight tendency to also answer the WAS items in somewhat more desirable directions. The correlations were generally low, although four out of 94 were above .20 (Moos, 1974b).

External Integration Scale

The External-Integration Scale developed by Segal and Aviram (1978) was administered to residents in the present study. External-Integration (EI) has been defined as the extent of access to, and participation in, community life, whether supported by the home or not.

The seven-factor analytically derived EI subscales are: (1) Attending to oneself; (2) Access to community resources; (3) Access to basic and personal resources; (4) Familial access and participation; (5) Friendship access and participation; (6) Social Integration through community groups; and (7) Use of community facilities.

1. Item Development

Segal and Aviram developed two separate social integration scales. The first, External Integration (EI), was developed to measure social integration into the community. The second, Internal Integration (II), was developed to measure social integration into the residential facility. Only the EI scale was utilized in the present study.

During the development of the EI scale, all items thought to be part of the original conception of social integration that were skewed more than 90% were eliminated. All items originally thought to belong in EI or the II scale, respectively, were separately intercorrelated to produce two matrices of approximately 80 items each. These matrices were

cluster-analyzed to determine what major clusters could be within the EI and II content areas. Once the best clusters were derived, they were put into one large correlation matrix containing both EI and II clusters. This large correlation matrix was then factor-analyzed, using the principal factor solution with varimax rotation to simple structure. These procedures produced the present 12 subscales, seven comprising EI, and five comprising II. There was little overlap between items on the two scales.

2. Reliability

The internal consistencies (as measured by Alpha) of the subscales making up EI and II, have been computed during the development of the scale. Also computed were the average item-to-subscale and the average item-to-other-subscale correlation for each subscale. The major criterion used for retaining a subscale was a high average item-to-subscale correlation versus a low average item-to-other-subscale correlation. All 12 subscales for both EI and II met this criterion.

The EI scale has acceptable internal consistency with good item-to-subscale correlations. Internal consistencies (Alpha) scores for EI range from a high of .91 on the Access to community resources subscale to a low of .65 on the Use of community facilities subscale. The average alpha score for the seven scales was .78. The average item-to-subscale

correlation ranges from a low of .65 on Attending to Oneself subscale to a high of .78 on the Friendship Access and Participation subscale. The average item-to-subscale correlation for the seven scales was .72. Average item-to-other-subscale correlation ranges from a high of .39 on the Friendship Access and Participation subscale to a low of .26 on Attending to Oneself subscale. The average item-to-other-subscale correlation score for all seven scales was .30.

Finally, there was a positive significant relationship of all the subscales to each other (average intercorrelation of .70). Given this relationship, Segal and Aviram decided to add the normalized scores from each subscale to generate the External Integration scale score. This procedure gave equal weight to each subscale in the total score.

There is no known test-retest reliability information available for the social integration scales.

3. Validity

The External Integration Scale has face validity and content validity. The EI scale purports to measure social integration into the community as measured by access and participation in a variety of activities outside of the residential facility. There was little overlap during the scales development between items on the EI and II scales. This seems to be a practical validation of the original conceptual distinction

between the two scales and strengthens their content validity. Content validity was also strengthened, in that the items and subscales were developed around specific objectives and a large number of items were sampled.

The degree to which the EI scale measures the construct of social integration into the community is difficult to demonstrate. Some evidence of construct validity can be assumed if the EI scale distinguishes between residents and different residential programs. The scale has successfully distinguished between residential programs and various predictors in past research (Segal and Aviram, 1978).

Consumer Response Scale

Residents in the present study were asked to complete the Consumer Response Scale (Segal and Aviram, 1978). This scale asked residents to rate their satisfaction with the home or apartment where they resided. Residents were asked if they find their living in the home/apartment helpful, if the rules are good, if they have enough privacy, if they feel they have enough influence with what goes on in the house/apartment, if they have the spending money they need, etc.

The original scale has been modified in this study to include a Liekert Type response scale.

1. Item Development

The Consumer Response Scale was developed by Segal and Aviram (1978) to determine residents' satisfaction with their living facility. The scale was developed to cover many aspects of supervised living, including: the physical environment, operation of the home (rules), treatment, etc.

2. Reliability and Validity

The reliability and validity of the Consumer Response Scale is undetermined.

Procedures for Collecting the Data

Data was collected during the week of May 21, 1984, from residents at a regularly scheduled house or apartment meeting. All residents were asked to participate. Residents were told that the study was to help determine which components of the program were most helpful. Those residents volunteering to participate were given consent forms, COPES, External Integration Scales, and Consumer Response Scales.

CMH Case Managers met as a group with the researcher. They also received a description of the study and its purpose. Case Managers were asked to complete a personal data sheet for each of their clients residing in one of the supervised settings.

Finally, each house staff member or apartment supervisor was contacted. A description of the study and its

purpose was provided. House staff and apartment supervisors were asked to complete the Residential Program Characteristic Scale at a weekly staff meeting.

Statistical Hypotheses

The following hypotheses were tested in the present research:

H_o: No difference will be found between residential settings' social environments, as measured by residents' reports on the Community-Oriented Program Environmental Scale (COPES).

H_1: Residential settings' social environments will vary, as measured by residents' reports on the COPES.

H_o: No difference will be found between residential settings' structure and program characteristics, as measured by staff report on the Residential Program Characteristics Scale (RPCS).

H_2: Residential settings' program characteristics will vary, as measured by staff report on the RPCS.

H_o: There will be no relationship between programs' "social climate," across residential settings, as measured by the COPES, and resident integration into the community, as measured by the External Integration Scale (EI).

H_3: There will be a relationship between programs' "social climate," across residental settings, as measured by the COPES, and resident integration into

the community as measured by the EI scale.

H_o: There will be no relationship between programs' "social climate," across residential settings, as measured by the COPES, and resident satisfaction with the residential setting, as measured by the Consumer Response Scale (CRS).

H_4: There will be a relationship between programs' "social climate," across residential settings, as measured by the COPES, and resident satisfaction with the residential setting, as measured by the CRS.

H_o: There will be no relationship between program characteristics, across residential settings, as measured by the Residential Program Characteristics Scale (RPCS), and resident integration into the community, as measured by the EI scale.

H_5: There will be a relationship between program characteristics, across residential settings, as measured by the RPCS, and resident integration into the community, as measured by the EI scale.

H_o: There will be no relationship between program characteristics, across residential settings, as measured by the RPCS, and resident satisfaction with the residential setting as measured by the CRS.

H_6: There will be a relationship between program characteristics, across residential settings, as measured by the RPCS, and resident satisfaction with the residential setting as measured by the CRS.

Design

The general design of this study was descriptive. The purpose was to determine what characteristics of residential programs for the chronically mentally ill were correlated with residents' social integration into the community and satisfaction with their placement. Review of the literature clearly indicates the need for research in this area. The studies reviewed have contributed very little to our knowledge of what actually takes place in residential settings to promote residents' reintegration into the community and satisfaction with their environment. The present descriptive research is necessary to broaden this understanding and to develop a useful theory. The present study was also intended to generate further questions and stimulate new approaches to research in this area.

Two simultaneous studies were conducted in the research. The first was primarily concerned with whether or not there are differences between residential programs. The second was concerned with how these differences, if they exist, effect the dependent variables.

Design I

The first design addressed the broad research question:

Are there differences between residential programs?

In order to answer this question, residents' scores on the COPES were compared. (Supervised apartments were counted as one residential setting). Next, house managers or apartment supervisors' scores on the RPCS were compared.

Both comparisons were nested designs with residential settings as the unit of analysis.

Design II

The second design addressed the broad research question:

What residential program characteristics (social environment, rules, etc.) are associated with residents' integration into the community and satisfaction with their residential placement?

There were 13 independent variables and two dependent variables in this design. The independent variables were the ten COPES subscales for residential settings and the three RPCS subscales for residential settings. The dependent variables were the residents' External Integration Scale scores and the residents' Consumer Response Scale scores.

Analysis

For Design I two univariate analysis of variance were used to determine if there were any differences between residential settings on (1) the Residential Program Characteristics Scale and (2) the Community-Oriented Program Environmental Scale. A univariate method of analysis was selected because these variables were expected to measure distinct program and social climate characteristics.

For Design II, four multiple regression equations were used to determine whether any relationship existed between the subscales of the independent variables (Residential

Program Characteristics Scale and the Community-Oriented Program Environmental Scales) and the two dependent variables (External Integration Scale and the Consumer Response Scale). This form of analysis allows for examination of the relationship between independent and dependet variables as well as the strength of this relationship. Multiple regression was especially well suited to this type of analysis because it has more power and allows for finer detection and better prediction.

Summary

Seventy-eight subjects agreed to participate in the study. This number represented 81% of the residents in eight residential treatment homes and ten residential apartments (apartments were counted as one residential setting during statistical analysis). Nearly all subjects were considered to be chronically mentally ill and most were diagnosed as schizophrenic. No attempt was made to randomize subjects in the present descriptive research.

Subjects completed three questionnaires, including: the Community-Oriented Program Environmental Scale (COPES), the External Integration Scale (EI), and the Consumer Response Scale (CRS). Residential home staff and apartment supervisors completed the Residential Program Characteristics Scale (RPCS). Each subjects' case manager in the Community Mental Health system completed a Personal Data Sheet for their client/subject.

Statistical hypotheses were formulated to determine if there were differences between residential settings' program characteristics and/or social environments. Univariate analysis of variance were used for this purpose.

Hypotheses were also formulated to determine if residential settings' program characteristics and/or social environments were related to the subject's satisfaction with their residential setting and/or the subject's integration into the community. Multiple regression analysis was used for this purpose.

The development of the Residential Program Characteristics Scale was also presented. Results of reliability tests showed a low alpha score of .82 and a high of .93. The results of the hypotheses tested are reported in Chapter IV.

CHAPTER IV

ANALYSIS OF RESULTS

The statistical hypotheses, an analysis of the data and a summary of the results are presented in this chapter. The first and second hypotheses were tested by univariate analysis of variance. The third, fourth, fifth, and sixth hypotheses were tested by pairwise multiple regression analysis.

Hypothesis I: Differences Between Residential Settings' Social Environments

Null Hypothesis: No difference will be found between residential settings' social environments, as measured by residents' reports on the Community-Oriented Program Environmental Scale (COPES).

Alternative Hypothesis: Residential settings' social environments will vary, as measured by residents' reports on the COPES.

Significant differences were found between residential settings' social environments for three of the ten subscales on the COPES ($p < .05$). Mean squares, F ratios, and F probabilities are shown in Table 4.1. Means, standard deviations, and the number of observations per residential setting are found in Appendix I.

TABLE 4.1.--Summary Data for Analysis of Variance of Residential Settings' Social Environments (COPES scores).

Variable (COPES subscale)	Mean Squares	F Ratio	F Probability
COPES 1 (Involvement)			
Between groups[a]	1.6443	1.043	.41
Within groups[b]	1.5766		
COPES 2 (Support)			
Between groups	3.9663	3.684	.01
Within groups	1.0766		
COPES 3 (Spontaneity)			
Between groups	2.6440	2.017	.06
Within groups	1.3108		
COPES 4 (Autonomy)			
Between groups	4.3094	4.357	.01
Within groups	.9891		
COPES 5 (Practical Orientation)			
Between groups	1.1143	.928	.50
Within groups	1.2006		
COPES 6 (Personal Problem Orientation)			
Between groups	.5850	.428	.90
Within groups	1.3678		
COPES 7 (Anger and Aggression)			
Between groups	.6190	.659	.72
Within groups	.9389		
COPES 8 (Order and Organization)			
Between groups	1.4892	1.249	.29
Within groups	1.1923		

TABLE 4.1.--continued

Variable (COPES Subscale)	Mean Squares	F Ratio	F Probability
COPES 9 (Program Clarity)			
Between groups	1.0913	1.159	.34
Within groups	.9415		
COPES 10 (Staff Control)			
Between groups	1.6414	2.178	.04*
Within groups	.7537		

* Significant at the .05 level.

[a] Degrees of Freedom Between Groups, 8.

[b] Degrees of Freedom Within Groups, 64.

Univariate analysis of variance were performed to examine differences between residential settings for each subscale of the COPES. The significance level was set at .05. Differences in mean scores on subscale 2 (Support), subscale 4 (Autonomy), and subscale 10 (Staff Control) were significant (see Table 4.1). The null hypothesis of no difference in mean scores was, therefore, rejected in favor of the alternative hypothesis. Residential settings' social environments did vary, as measured by the COPES on subscales 2, 4, and 10.

Hypothesis II: Differences Between Residential Settings' Program Characteristics

Null Hypothesis: No difference will be found between residential settings' program characteristics, as measured by staff report on the Residential Program Characteristics Scale (RPCS).

Alternative Hypothesis: Residential settings' program characteristics will vary, as measured by staff report on the RPCS.

Significant differences were found between residential settings' program characteristics for each of the three subscales on the RPCS ($p < .05$). Mean squares, F ratios, and F probabilities are shown in Table 4.2. Means, standard deviations, and the number of observations per individual residential setting are found in Appendix J.

Univariate analysis of variance were performed to examine differences between residential settings for each subscale of the RPCS. The significance level was set at .05. Differences in mean scores were significant on all subscales (see Table 4.2). The null hypothesis of no difference between mean scores was therefore rejected in favor of the alternative hypothesis. Residential settings' program characteristics did vary as measured by the RPCS on all subscales.

TABLE 4.2.-- Summary Data for Analysis of Variance of Residential Settings' Program Characteristics (RPCS scores).

Variable (RPCS subscale)	Mean Squares	F Ratio	F Probability
RPCS (Structure)			
Between groups[a]	611.5010	38.572	$<.01$ *
Within groups[b]	15.8535		
RPCS (Responsibility/ Independence)			
Between groups	618.2311	75.089	$<.01$ *
Within groups	8.2333		
RPCS (Supervision)			
Between groups	1035.3634	74.685	$<.01$ *
Within groups	13.8630		

* Significant at the .05 level.

[a] Degrees of Freedom Between groups, 8.

[b] Degrees of Freedom Within groups 41, 44, 38, respectively.

Hypothesis III: The Relationship Between Residents' Community Integration and Residential Settings' Social Climate

Null Hypothesis: There will be no relationship between programs' "social climate," across residential setttings, as measured by the COPES, and resident integration into the community, as measured by the External Integration Scale (EI).

Alternative Hypothesis: There will be a relationship between programs' "social climate," across residential settings, as measured by the COPES, and resident integration into the community, as measured by the External Integration Scale (EI).

Hypothesis III was tested by using a pairwise multiple regression equation with the ten COPES subscales as independent variables and the total EI scale score as the dependent variable. The results of the regression analysis were significant for COPES subscales 3 (Spontaneity), 2 (Support), and 8 (Order and Organization). A summary of the results is presented in Table 4.3. The null hypothesis was rejected as there is some relationship between subtest scores on the COPES and scores on the EI scale.

TABLE 4.3.--Multiple Regression Summary Table for Relationship Between External Integration and COPES Scores.

Independent Variable (COPES Subscale)	Beta	Standard Error of Beta	R^2	Overall F Value	Significance of F Value
COPES 3 (Spontaneity)	.148	.136	.055	3.909	.05 *
COPES 2 (Support)	.079	.160	.087	3.150	.05 *
COPES 8 (Order and Organization)	-.219	.135	.110	2.680	.05 *
COPES 1 (Involvement)	.167	.145	.132	2.439	.06
COPES 10 (Staff Control)	-.096	.132	.140	.2046	.08
COPES 5 (Practical Orientation)	.060	.145	.145	1.757	.12
COPES 9 (Program Clarity)	.078	.133	.149	1.532	.17
COPES 4 (Autonomy)	.070	.129	.154	1.363	.23
COPES 7 (Anger and Aggression)	-.045	.122	.156	1.209	.31
COPES 6 (Personal Problem Orientation)	**	**	**	**	**

* Significant at .05 level.
** F-Level or Tolerance-Level insufficient for computation.

Hypothesis IV: Relationship Between Residents' Satisfaction and Residential Settings' Social Climate

Null Hypothesis: There will be no relationship between programs' "social climate," across residential settings, as meausred by the COPES, and resident satisfaction with the residential setting, as measured by the Consumer Response Scale (CRS).

Alternative Hypothesis: There will be a relationship between programs' "social climate," across residential settings, as measured by the COPES, and resident satisfaction with the residential setting, as measured by the Consumer Response Scale (CRS).

A pairwise multiple regression equation with the ten subscales of the COPES as independent variables and the total score on the Consumer Response Scale as the dependent variable was used to test Hypothesis IV. The results of the regression analysis were significant at the .05 level for all ten COPES subscales entered into the equation. However, COPES subscale 2 (Support) accounted for 21% of the total 38% of the variance accounted for by all ten subscales combined. A summary of the analysis is presented in Table 4.4. The null hypothesis was rejected in favor of the alternative hypothesis. There does appear to be a relationship between subscale scores on the COPES and scores on the Consumer Response Scale, across residential settings.

TABLE 4.4.--Multiple Regression Summary Table for the Relationship Between Consumer Response Scores and COPES Scores.

Independent Variable (COPES subscale)	Beta	Standard Error of Beta	R^2	Overall F Value	Significance of F Value	
COPES 2 (Support)	.271	.146	.211	17.920	<.01	*
COPES 9 (Program Clarity)	.194	.124	.264	11.859	<.01	*
COPES 7 (Anger and Aggression)	-.150	.107	.310	9.751	<.01	*
COPES 1 (Involvement)	.201	.125	.339	8.199	<.01	*
COPES 10 (Staff Control)	.176	.114	.371	7.416	<.01	*
COPES 5 (Practical Orientation)	.073	.125	.376	6.215	<.01	*
COPES 6 (Personal Problem Orientation)	-.090	.124	.380	5.347	<.01	*
COPES 8 (Order and Organization)	.037	.117	.381	4.623	<.01	*
COPES 4 (Autonomy)	.026	.112	.382	4.054	<.01	*
COPES 3 (Spontaneity)	.014	.122	.382	3.589	.01	*

* Significant at the .05 level.

Hypothesis V: Relationship Between Residents' Community Integration and Residential Program Characteristics

Null Hypothesis: There will be no relationship between program characteristics, across residential settings, as measured by the Residential Program Characteristics Scale (RPCS), and resident integration into the community as measured by the EI scale.

Alternative Hypothesis: There will be a relationship between program characteristics, across residential settings, as measured by the RPCS, and resident integration into the community as measured by the EI scale.

Hypothesis V was tested by using a pairwise multiple regression equation with the three Residential Program Characteristic Scale (RPCS) subscales as independent variables and the total External Integration (EI) Scale score as the dependent variable. The results of the regression analysis were significant ($p < .05$) for two RPCS subscales, Responsibility/Independence and Structure. Results were not significant for the third RPCS subscale, Supervision. A summary of the results is presented in Table 4.5. The null hypothesis was rejected as there is a relationship between subtest scores on the RPCS and scores on the EI scale.

TABLE 4.5.--Multiple Regression Summary Table for the Relationship Between External Integration and Residential Program Characteristics.

Independent Variable (RPCS subscales)	Beta	Standard Error of Beta	R^2	Overall F Value	Significance of F Value
RPCS (Responsibility/ Independence)	.463	.301	.081	5.874	.02 *
RPCS (Structure	-.199	.150	.097	3.542	.04 *
RPCS (Supervision)	.245	.330	.104	2.527	.07

* Significant at .05 level.

Hypothesis VI: Relationship Between Residents' Satisfaction and Residential Program Characteristics

Null Hypothesis: There will be no relationship between program characteristics, across residential settings, as measured by the RPCS, and resident satisfaction with the residential setting, as measured by the Consumer Response Scale (CRS).

Alternative Hypothesis: There will be a relationship between program characteristics across residential settings, as measured by the RPCS, and resident satisfaction with the residential setting, as measured by the CRS.

A pairwise multiple regression equation with the three Residential Program Characteristic Scale (RPCS) subscales as the independent variable and the total score on the Consumer Response Scale (CRS) as the dependent variable was used to test Hypothesis VI. The first two subscales, Responsibility/Independence and Supervision, were not statistically significant. The third subscale, Structure, was found to be statistically significant however, this finding appears to be a statistical artifact perhaps due to the fact that Responsibility/Independence and Supervision were found to be highly correlated ($r = -.89$). The null hypothesis was, therefore, not rejected.

TABLE 4.6.--Multiple Regression Summary Table for the Relationship Between Consumer Response Scores and Residential Program Characteristics.

Independent Variable (RPCS subscale)	Beta	Standard Error of Beta	R^2	Overall F Value	Significance of F Value
RPCS (Responsibility/ Independence)	.921	.274	.010	.772	.38
RPCS (Supervision)	1.023	.304	.073	2.970	.06
RPCS (Structure)	-.344	.138	.144	4.151	.01 *

* Significant at the .05 level.

The Relationship Between Residents' Characteristics and Their Integration into the Community

The relationship between residents' characteristics and their score on the External Integration Scale was tested by using a pairwise multiple regression equation. The results of the regression analysis were significant at the .05 level for seven characteristics of residents (see Table 4.7): education, age, number of psychiatric hospitalizations, months in current residential setting, sex, amount of spending money, and date of most recent hospitalization. There is a significant relationship between the characteristics of residents and their scores on External Integration.

The Relationship Between Residents' Characteristics and Their Consumer Response Scores

A pairwise multiple regression equation was used to test the relationship between residents characteristics and their score on the Consumer Response Scale (CRS). The results of the regression analysis showed education to be significant at the .05 level (see Table 4.8). There appears to be very little relationship between residents' characteristics and their scores on the CRS.

TABLE 4.7.--Multiple Regression Summary Table for the Relationship Between Residents' Characteristics and Integration into the Community.

Independent Variable	Beta	Standard Error of Beta	R^2	Overall F Value	Significance of F Value	
Education	.239	.132	.087	5.150	.03	*
Age	-.397	.191	.133	4.079	.02	*
Number of Hospitalizations	.260	.165	.206	4.499	.01	*
Months in Current Residential Setting	.160	.141	.224	3.676	.01	*
Sex[a]	-.115	.140	.230	2.987	.02	*
Amount of Spending Money	-.097	.135	.236	2.527	.03	*
Last Hospitalization	.206	.404	.240	2.164	.05	*
Total Months Hospitalized	-.081	.174	.242	1.873	.09	
First Hospitalization	-.151	.411	.244	1.649	.13	

* Significant at .05 level.

[a] Being male has a negative relationship with EI.

TABLE 4.8.--Multiple Regression Summary Table for the Relationship Between Residents' Characteristics and Consumer Response Scores.

Independent Variable	Beta	Standard Error of Beta	R^2	Overall F Value	Significance of F Value
Education	-.248	.141	.067	3.877	.05 *
Last Hospitalization	.314	.432	.090	2.625	.08
Amount of Spending Money	-.125	.144	.101	1.945	.13
Months in Current Residential Setting	.093	.151	.114	1.634	.18
Total Months Hospitalized	-.181	.186	.126	1.446	.22
Age	.067	.204	.130	1.218	.31
Sex	.052	.150	.133	1.048	.41
First Hospitalization	-.153	.440	.134	.907	.52
Number of Hospitalizations	-.050	.176	.135	.800	.62

* Significant at the .05 level.

Overall Results on External Integration and Consumer Response Scales

The dependent measures (External Integration Scale and Consumer Response Scale) both contained Liekert type response scales with one being the low point, three representing the midpoint, and five being the high point.

The mean total score for External Integration across residential settings was 129.042 with a maximum possible score of 220. The average response per question on the five point Liekert type scale was 2.9, or near the midpoint on the scale (see Table 4.9).

The mean total score for Consumer Response across residential settings was 67.205 with a maximum possible score of 100. The average response per question on the Liekert type scale was 3.36, or slightly beyond the midpoint on the scale (see Table 4.9).

Means and standard deviations for individual residential settings are found in Appendix K.

Summary

The first two hypotheses were tested to determine if residential settings differed in their programs (Residential Program Characteristics Scale) and social environments (Community-Oriented Program Environmental Scale). A univariate analysis of variance found the residential settings did differ at the .05 level of significance for both variables.

TABLE 4.9.--Overall Results on External Integration and Consumer Response Scales.

Variable	Total Mean Score	Standard Deviation	Mean Score per Question	Maximum Possible Score
External Integration	129.042	26.307	2.932	220
Consumer Response	67.205	12.661	3.36	100

The remaining four hypotheses were tested using multiple regression analysis. The relationship between residential settings' programs (RPCS) and residents' integration into the community (External Integration Scale) was examined, as was the relationship between residential settings programs (RPCS) and residents' satisfaction with their living environment (Consumer Response Scale). This process was repeated by examining the relationship between residential settings' social environments (COPES) and residents' integration into the community (EI) and satisfaction with their living environment (CRS).

The following is a summary of the results for each hypothesis test:

1. Hypothesis I asked if there were differences between residential settings' social environments, as measured by the Community-Oriented Program Environmental Scale (COPES). The null hypothesis was rejected at the .05 level on three of the ten COPES subscales (Support, Autonomy, and Staff Control). Residential settings did differ in their social environments.

2. Hypothesis II asked if residential settings differed in program characteristics, as measured by the Residential Program Characteristics Scale (RPCS). Significant differences ($p < .05$) were found between residential settings' program characteristics for all three of the RPCS subscales (Structure, Responsibility/Independence, and Supervision). The null hypothesis was rejected at the .05 level of significance.

3. Hypothesis III examined the relationship between programs' "social climate," across residential settings, as measured by the COPES, and residents' integration into the community, as measured by the External Integration Scale (EI). The COPES subscales for Spontaneity, Support, and Order and Organization were found to be significant at the .05 level of significance and the null hypothesis was rejected.

4. Hypothesis IV looked for a relationship between programs' "social climate" (COPES), across residential settings, and resident satisfaction with their living environment, as measured by the Consumer Response Scale (CRS). All ten subscales of the COPES were significant at the .05 level and the null hypothesis was rejected.

5. Hypothesis V asked if there was a relationship between program characteristics (RPCS), across residential programs, and resident's integration into the community (EI). The results were significant ($p < .05$) for two RPCS subscales: Responsibility/Independence and Structure and the null hypothesis was rejected.

6. Hypothesis VI examined the relationship between the program characteristics (RPCS) of the residential setting and residents' satisfaction with living in their residential setting (CRS). The results were significant at the .05 level for the program characteristic, Structure. This finding, however, appears to be a statistical artifact and the null hypothesis was not rejected.

Additional analysis examined the relationship between residents' characteristics and their integration into the community and satisfaction with their environment. Only education was significantly related to satisfaction with the environment at the .05 level. Education, age, number of psychiatric hospitalizations, months in current residential setting, sex, amount of spending money and date of last hospitalization were all significantly related to integration into the community at the .05 level.

Last, analysis of the overall integration of residents into the community and their overall satisfaction with their living environment were performed. The average response (2.9) on a Liekert type five point scale for integration into the community was very near the midpoint on the scale (3.0), indicating residents "sometimes" participate in activities in the community and that they have "not much trouble" arranging these activities. The average response (3.36) on a Liekert type five point scale for satisfaction with the living environment was slightly greater than the midpoint (3.0) on the scale, indicating residents find their environment to be a little better than "Okay," "Somewhat satisfied," or "Adequate."

In Chapter V a summary of the study will be presented. The findings will be discussed and conclusions presented. Limitations of the study and implications for future research will be discussed.

CHAPTER V

SUMMARY

In this chapter the study is summarized and conclusions based on the data analysis are explored. A discussion of the results as well as the limitations of the study are included, along with suggestions for future research in the area.

The purpose of this study was twofold: first to determine if residential treatment settings differed in their program factors and social climate. Secondly, to examine possible relationships between program factors and social climates, and residents' integration into the community and satisfaction with their environment. The impetus for the study grew out of the need to examine residential treatment on the basis of two of the original goals of deinstitutionalization: reintegration into the community and humane treatment. Impetus was also provided by the scarcity of previous research attempting to identify significant treatment factors and their relationship to the original goals of deinstitutionalization. Previous research examining residential treatment was reviewed across the following areas: (1) the relationship between residential treatment settings' program characteristics and patient outcome, and (2) the relationship between characteristics

of individuals served in residential treatment settings and patient outcome. With few exceptions (Segal & Aviram, 1978), the studies reviewed tended to label programs with terms such as "community treatment" without attempting to identify significant program, environmental or treatment characteristics.

Seventy-eight residents of eight residential group homes and ten supervised apartments participated in the study. These residents completed questionnaires pertaining to the social environment of their present residential placement, their integration into the community and their satisfaction with the residential setting. Forty-three house staff and apartment supervisors completed a questionnaire examining program characteristics of the residential setting where they worked. Case managers/therapists completed a personal data sheet on each of their clients in the residential placements studied.

The research design for this study was divided into two sections. The first section examined whether the two independent variables, program characteristics and social climate, differed between residential settings. The second section examined the relationship between these two independent variables and the two dependent variables, resident's integration into the community and their satisfaction with the residential placement. In addition to the results of the formal hypotheses testing, analysis was performed to determine if resident's characteristics were related to the dependent variables. Lastly, the overall degree of

residents' integration into the community and satisfaction with their residential placement was reviewed.

Results

A univariate analysis of variance was used to determine if residential settings differed in their program characteristics and social climate. The significance level was set at .05. Significant differences were found on all three of the subscales measuring program characteristics (Structure, Responsibility/Independence, and Supervision). Three of ten subscales measuring social climate differed significantly (Support, Autonomy and Staff Control).

Multiple regression analysis were performed to test for a relationship between program characteristics and residents' integration into the community, as well as satisfaction with the residential setting. Two program characteristics (Responsibility/Independence and Structure) were found to be significantly related to residents' integration into the community at the .05 level. Responsibility/Independence was positively related to community integration while Structure was negatively related. No program characteristics were significantly related to residents' satisfaction with the residential setting.

Multiple regression analysis were also performed to test for a relationship between social climate and residents'

integration into the community and satisfaction with the residential setting. Three characteristics of the social climate (Spontaneity, Support, and Order and Organization) were found to be significantly related to residents' integration into the community at the .05 level. The relationships were positive except for Order and Organization, which was negatively related to residents' integration. All ten social climate characteristics (Support, Program Clarity, Anger and Aggression, Involvement, Staff Control, Practical Orientation, Personal Problem Orientation, Order and Organization, Autonomy, and Spontaneity) were found to be related to residents' satisfaction with the residential setting at the .05 level of significance. These relationships were positive except for Anger and Aggression and Personal Problem Orientation, which were negatively related to residents' satisfaction. However, one characteristic of the social climate, Support, was responsible for 21% of the total 38% of the variance accounted for by all ten characteristics combined.

Additional analysis was done using a multiple regression analysis to examine whether residents' characteristics were related to the dependent variables. Only one residents' characteristic, education, was found to be related to satisfaction with the residential setting, and this relationship was negative. However, education, age, number of psychiatric hospitalizations, months in current residential setting, sex, amount of spending money, and date of last hospitalization, were all significantly related to

integration into the community at the .05 level. Of these residents' characteristics, age, sex (being male), and amount of spending money were negatively related to community integration.

Last, the overall degree of residents' integration into the community and satisfaction with their residential setting was assessed. Residents' average response on the five point Liekert type scale questions measuring integration into the community was 2.9 or very near the midpoint (3.0). This indicates residents "sometimes" participate in various activities in the community and that on the average, they have "not much trouble" arranging these activities. The residents' average response on the five point Liekert type scale questions measuring satisfaction with the residential setting was 3.36 or slightly greater than the midpoint on the scale. This indicates residents find their residential placement to be a lettle better than "Okay," "Somewhat satisfied," or "Adequate."

Discussion

The findings of the present research will be discussed in this section beginning with the hypothesis examined and proceeding to the supplemental analysis.

Hypothesis I examined the differences between residential settings' social environments. Three Community-Oriented Programs Environmental Scale (COPES) subscales were found to vary significantly ($p < .05$) across residential settings.

These subscales measure the Support, Autonomy, and Staff Control existing in each setting.

Support is one of three subscales on the COPES designed to measure the relationship dimension of an environment. It refers to the extent to which residents are encouraged to be helpful and supportive toward one another and the extent to which staff are supportive towards residents (Moos, 1974b).

It is interesting to note that the residential setting scoring highest on Support was the Transitional Living House (see Appendix I). T.L.H. uses a group government model to promote interdependence and group problem solving among its residents. This type of programing encourages group interactions and might be expected to encourage Support as well. On the other hand, OASIS, another home which uses a group government model with a somewhat lower functioning population scored lowest on Support. OASIS residents may be less able to make use of the group government model thereby, lowering the amount of Support in the environment. Another possible explanation for the low Support score at OASIS might be the fact that its residents have lived there for an average of only 2.0 months, the lowest of all the residential settings studied. Support might be expected to increase over time, as group cohesion increases provided residents have the capacity for using the group government model to develop interdependency.

Autonomy was also found to vary significantly across residental settings studied. Autonomy is one of four COPES subscales designed to measure the treatment program dimension

of an environment. It refers to how self-sufficient and independent residents are encouraged to be in making their own decisions about their personal affairs, i.e., what they wear, where they go, and in their relationships with the staff (Moos, 1974b).

The settings scoring highest on Autonomy were High Street and the Supervised Apartment programs. Residents of these two programs receive minimal supervision and programing in their residential settings. They have the most freedom of all the programs and their high Autonomy scores seem to reflect this fact. Hyatt and Whispering Pines scored lowest on Autonomy. Their scores reflect the fact that both homes are highly supervised (see Appendix J) with staff reminding residents of appointments, holding and monitoring medications, assuming primary responsibility for household chores such as cooking and shopping, enforcing curfews, etc.

Staff Control was the last COPES subscale found to vary significantly across residential settings. Staff Control is one of three COPES subscales designed to measure system maintenance or keeping the program functioning in an orderly, clear, organized manner. Staff Control measures the extent to which staff use measures to keep residents under necessary controls, i.e., in the formulation of rules, the scheduling of activities, and in the relationships between residents and staff. Staff Control has been negatively correlated with general satisfaction and personal development variables in previous research (Moos, 1974c).

Abbott and High Street score the lowest on Staff Control.

Residents of these homes differ in their functioning level with High Street residents being higher functioning and able to tend to their own daily needs such as cooking, hygiene, etc. Abbott residents, on the other hand, tend to have poor self care skills and often require reminding to bathe, etc. Abbott residents do not assist in house duties such as cooking and cleaning which are done for them. It is interesting that Staff Control is so low in both settings and that both homes are also low on the program characteristic Structure (see Appendix J). This apparent inconsistency is accounted for by the fact that residents of both homes tend to be resistant towards traditional treatment methods involving higher levels of structure and external control. This resistance might also be related to the fact that residents of both homes (as a group) have a history of frequent hospitalizations (see Appendix L). Both programs are deliberately designed to minimize conflict in the form of power struggles and hopefully minimize any stress which might precipitate rehospitalization. This programing decision is reflected in the low Staff Control score for both programs.

Whispering Pines and Supervised Apartments scored highest on Staff Control. Whispering Pines also scored highest on the program characteristic of Staff Supervision (see Appendix J). This program seems to rely heavily on staff interventions in order to maintain necessary rules and order as there is no group government or set system for earning privileges. The high score on Staff Control in Supervised Apartments is difficult to account for, particularly

since Supervised Apartments scored very high on Autonomy and lowest of all the programs on the program characteristic of Staff Supervision. This discrepancy cannot be accounted for in the present research.

The findings for Hypothesis I demonstrate that residential programs do vary in their social environments. These differences are related to program characteristics, conscious planning, and differences between residents served. The findings also suggest that social environments can be modified in a planned way to promote the most desirable environment for residents.

Hypothesis II examined the differences between residential settings' program characteristics. All three Residential Program Characteristics Scale (RPCS) subscales were found to be significantly ($p < .05$) different across residential settings. These subscales measure the degree of program Structure, the degree of resident Responsibility/Independence, and the degree of staff Supervision.

The programs scoring highest on Structure were Jerome, T.L.H. and Oasis. These are the only programs utilizing a step program with earned privileges. These are also the programs which emphasize a group government model. It comes as no surprise that they score highest on the program characteristic, Structure. The programs with the lowest scores on Strucutre were Supervised Apartments, Abbott, and High Street. These settings offer minimal programing on the premises, none have a step program, and none have a group goverment emphasis.

Their low scores on Structure are also to be expected.

The subscale measuring Responsibility/Independence also differentiated between programs in a predictable way. T.L.H., Supervised Apartments, and High Street scored highest. These programs require that residents schedule and keep their own appointments for medication reviews, counseling, etc. They also require that residents hold and monitor their own medication. Finally, each of these programs are without staff coverage for blocks of time. The programs scoring lowest on Responsibility/Independence are Eureka, Hyatt, and Abbott, and have 24 hour staffing. Residents are routinely reminded of appointments and may even be assisted in getting to appointments. Staff also typically monitor medications.

The last program characteristic, Supervision, significantly differentiated between programs with Hyatt, Whispering Pines, and Eureka scoring highest. These programs serve a more dependent population and rely on staff supervision as opposed to program structure to maintain necessary rules and order. The programs with the lowest scores on Supervision were Supervised Apartments, T.L.H., and High Street. As mentioned above, these programs are unstaffed for blocks of time and residents are responsible for shopping, preparing meals, monitoring their own medication, etc.

The findings for Hypothesis II demonstrate that the residential programs studied do differ in their program characteristics. These characteristics are intended to vary according to the needs of the residents served.

Hypothesis III and V asked if the residential settings'

social environments (COPES) or program characteristics (RPCS) were related to residents External Integration (EI) into the community. Community integration was selected as an outcome measure because of its importance in the normalization process. If the mentally ill are to re-enter the "main stream" of society, they must have access to and, be encouraged to, participate in the community.

Results for Hypothesis III showed that three COPES subscales were significantly ($p < .05$) related to integration into the community. These subscales were Spontaneity, Support, and Order and Organization. Spontaneity and Support were positively related to community integration while Order and Organization was negatively related. A total of 11% of the variance was accounted for by all three COPES subscales combined.

Previous research by Segal and Aviram (1978) also found that community integration was influenced by the social environment. The most important environmental characteristics in their study were Involvement, Support, Spontaneity, Order and Organization, and Program Clarity. Similarly, the present study found Spontaneity, Support, and Order and Organization to have a significant relationship to community integration.

The four programs scoring highest on community integration were T.L.H., Supervised Apartments, Abbott, and High Street (see Appendix K). These same four programs scored the highest on Spontaneity. Two of the same programs (T.L.H. and Supervised Apartments) scored highest on Support and

three of the same programs (T.L.H., Abbott, and Supervised Apartments) were among the four lowest scoring programs on Order and Organization (see Appendix I).

Results for Hypothesis V showed that two RPCS subscales were significantly ($p < .05$) related to community integration. These subscales were Responsibility/Independence and Structure. Responsibility/Independence was positively related to community integration while Structure was negatively related. A total of 10% of the variance was accounted for by both RPCS subscales combined.

Once again the programs scoring high on community integration (T.L.H., Supervised Apartments, Abbott, and High Street) are represented on the RPCS subscales which were significantly related to community integration. Three of these programs (T.L.H., Supervised Apartments, and High Street) scored highest on Responsibility/Independence while three scored lowest of the residential programs studied on Structure (Supervised Apartments, Abbott, and High Street).

Overall, the social environments and program characteristics seem to influence each other in their relationship to community integration (they may even be addressing the same phenomena in some cases). For example, the COPES subscale, Order and Organization, and the RPCS subscale, Structure, were both negatively related to community integration. Both subscales address the number of rules and the amount of planning and organizing in the home. As scores on these scales increase, scores on another significant COPES subscale, Spontaneity, might be expected to

decrease. The results suggest that increasing rules, planning, and organizing in a home allows less opportunity for involvement in the community on a spontaneous basis. As program rules and expectations increase, time spent in the residential setting is likely to increase while time in the community decreases. The RPCS subscale Responsibility/Independence and the COPES subscale Support may also influence each other. The Responsibility/Independence subscale includes such items as selecting and dismissing the residents, shopping, and preparing meals. In most homes, these tasks are done as a group. As these group responsibilities increase, they are likely to encourage interdependence and may increase Support.

In conclusion, the present research suggests that programs wishing to encourage community integration should balanace this goal against the need for such restrictions as rules, house duties, and curfews. In addition, a social environment which is conducive to community integration might be encouraged by increasing the responsibility given to residents as a group, thus, encouraging interdependence and mutual support between the residents.

The last factor presented here which should be considered if attempting to increase community integration is the location of the home. Location was not statistically tested in the present research, however, the three homes scoring lowest on community integration were Oasis, Eureka, and Hyatt. Eureka and Hyatt are the only settings located in rural areas, while Oasis is located in a suburban

nieghborhood. The fact that these three homes score lowest on community integration points out the need to locate homes in areas where community resources are convenient, if community integration is a goal.

Hypothesis IV and VI asked if the residential settings' social environment (COPES) or program characteristics (RPCS) were related to residetns satisfaction with their living environment (CRS). Consumer satisfaction is a desirable goal in residential treatment for several reasons. Drake and Wallack (1979) found a relationship between residents' living preference andpast and prospective community tenure. Nevid, Capurso, and Morrison (1980) found residents satisfaction with their living environment to be related to less overt psychotic behavior and less socially obstreperous behavior. In orther words, resident satisfaction appears to be a worthwile goal of residential treatment for humane and rehabilitation purposes.

Results for Hypothesis IV showed that all ten COPES subscales were significantly ($p < .05$) related to residents' satisfaction. These subscales were Support, Program Clarity, Anger and Aggression, Involvement, Staff Control, Practical Orientation, Personal Problem Orientation, Order and Organization, Autonomy, and Spontaniety. The relationship between residents' satisfaction and Anger and Aggression, and Personal Problem Orientation was negative. All other relationships were positive. A total of 38% of the variance was accounted for by all ten subscales combined, however,

the subscale Support, alone, accounted for 21% of this variance.

Research by Segal and Aviram (1978) found the best predictors of residents' satisfaction with their residential setting to be Involvement, Order and Organization, Support, and Spontaneity. The present research supports the conclusions reached by Segal and Aviram that the social environment within a residential setting is related to residents' satisfaction with their placement.

The four programs scoring highest on resident satisfaction were Whispering Pines, Hyatt, Supervised Apartments, and T.L.H. (see Appendix K). The same four programs scored the highest on Support while three (Supervised Apartments, Whispering Pines, and T.L.H.) scored highest on Program Clarity. Three of these programs (Hyatt, Supervised Apartments, and T.L.H.) were also among the four lowest scores on Anger and Aggression (see Appendix I).

Results for Hypothesis VI found no RPCS subscales significantly related to residents' satisfaction. The RPCS subscale Structure did have significance ($p < .05$), however, this significance was considered to be a statistical artifact and was discussed earlier (see Chapter III).

The homes scoring highest on satisfaction are each designed to serve a special population through different programs, yet each has been able to maintain high resident satisfaction. Two of these homes, Whispering Pines and Hyatt, scored highest of all the homes on the program

characteristic of Supervision while the other two programs, T.L.H. and Supervised Apartments scored the lowest on Supervision. All four homes scored very differently on the program scales for Structure and Responsibility/Independence as well. These findings clearly suggest that resident satisfaction can be maintained at a high level across various types of programs provided the programing is reasonable and addresses the needs of the residents.

Overall, the social environment appears to be more strongly related to residents satisfaction with their residential settings than are program characteristics. Examination of the environmental characteristics involved suggest that resident satisfaction is related to an environment where residents are actively involved with other residents and/or staff (Involvement) in a supportive rather than hostile relationship (Support, and Anger and Aggression) where the setting has clear rules and expectations (Program Clarity).

Supplemental analysis were performed to determine if any relationship existed between residents' characteristics and residents' integration into the community and satisfaction with their environment.

Seven characteristics of residents were significantly ($p < .05$) related to community integration. Combined, they accounted for 24% of the variance. These characteristics were education, age, number of hospitalizations, months in current residential setting, sex (being female was positively related to community integration), amount of spending money and date of most recent hospitalization. Age, amount of

spending money, and being male were negatively related to community integration while all other characteristics were positively related.

Segal and Aviram (1978) found that community integration was positively related to the resident's amount of spending money and being a voluntary resident. The present research found amount of spending money to be negatively related to community integration but did not address the question of whether residents perceive themselves to be voluntary residents.

The negative relationship between amount of spending money and community integration in this study may be misleading. The two settings with the highest average amount of spending money were High Street and Supervised Apartments. Residents in both settings pay their own rent and have money left over which is considered spending money, however, all other necessities including food must be paid for out of this remaining money. It is likely that what is called spending money in the case of High Street and Supervised Apartment residents is actually money spent on other necessities. Residents in all other settings pay a monthly fee which covers rent, food, program fees, and a few other necessities. The money they have left over is more accurately called spending money.

Being male and age were also negatively correlated with community integration. Being male may lead to less community integration on the EI scale because many of the questions deal with socializing with friends, family, and

acquaintances. It may be that males spend less time in social pursuits and more time in active or task oriented pursuits which are under represented on the EI scale. Age may be negatively related to community integration due to the course of mental illness, particularly schizophrenia, and due to past hospitalizations. Schizophrenia usually has its onset in the late teens or early twenties. Older residents are therefore, likely to be among the most chronically mentally ill and less likely to be involved in the community. These older and perhaps more chronic residents are also more likely to have been exposed to lengthy hospitalizations and to have become institutionalized.

Education and months in the current residential setting are positively associated with community integration. Residents with more education are likely to have had a later onset with their illness and to have had the opportunity to develop greater social, vocational, and self care skills, making community integration easier. Months in the current residential setting should be positively related to community integration as one of the goals of community placement is community integration.

The number of a resident's hospitalizations and the date of the most recent hospitalization were also positively related to community integration. These relationships are difficult to account for in the present analysis, especially since total months hospitalized had a negative (but not statistically significant) relationship to community integration. One possible explanation is that these figures

represent a younger group of residents who have had more but shorter hospitalizations during acute phases of their illness.

To summarize, being more educated, younger and female is positively related to community integration. Staying longer in a residential placement is also positively associated with community integration. The remaining resident characteristics appear, at face value, difficult to explain; they are that a history of more hospitalizations, less spending money, and a more recent hospitalization are related to increased community integrations. Possible explanations for these results were discussed above.

The only resident characteristic significantly ($p < .05$) related to satisfaction with the residential setting was education. This was a negative relationship which accounted for 7% of the variance. This finding may be due to the fact that living in a residential treatment setting means giving up a certain degree a "status" and taking on the role of a mentally ill person. It also means giving up a good deal of independence and livng by the rules of the home. Lastly, more educated residents may not see themselves as needing much of the programing which is directed towards self care skills such as hygiene, shopping, cooking, budgeting, etc. The residential programs in the present research, with the possible exception of the Supervised Apartments, are not designed with more educated residents in mind.

The final supplemental analysis examined residents' overall community integration and degree of satisfaction

with their residential setting. Both the EI scale and CRS contained Liekert type response scales with one being the low point and five being the high point.

The average response per question on community integration (EI) was 2.9 or very near the midpoint on the scale (see Table 4.9). This indicates residents "sometimes" participate in various activities in the community and they they have "not much trouble" arranging these activities.

The average response per question on satisfaction with the residential setting was 3.4 or slightly greater than the midpoint on the scale (see Table 4.9). This indicates residents find their residential placement to be slightly better than "Okay," "Somewhat satisfied," or "Adequate."

These scores take on quite a different meaning in light of the fact that the average resident has spent 33.4 months in a psychiatric hospital and has been hospitalized 4.6 times by the time he or she is 34 years old. Many of these residents would be in a closed institution were it not for deinstitutionalization or they might be living in a condemned building were it not for community residential placement. There can be no doubt that community integration and consumer satisfaction are humane goals for residential treatment. The present research has attempted to identify some of the social, environmental and program factors related to these goals in the hope that their modification will lead to the enhancement of community living for the chronically mentally ill.

Limitations

The use of non-random sampling and the absence of a control group has an impact on the external validity of the present study. In addition, all subjects were volunteers and generalization is restricted to the type of subject volunteering. The sample was described in detail and a large proportion (81%) of the population agreed to participate, facilitating some generalizing of results.

In addition to sampling limitations, there are possible limitations in the measures used and the method of data collection. The self-report instruments in the present study are accurate to the extent that such perceptions are accurate and to the extent that the individual is willing to honestly express them. The contents of the instruments used in this study were not expected to be embarrassing, threatening, or sensitive to social desirability. In addition, the effect of social desirability on one instrument (COPES) has been previously studied and only a slight correlation was found.

Finally, this study examined a limited number of variables. Other variables not considered in the present research, such as type of medication and the level administered, individual personality factors, etc., could have an impact on the results.

Recommendations for Further Research

With the deinstitutionalization movement has come the need to develop aftercare systems for the chronically mentally ill in the community (Meyerson and Herman, 1983). Research aimed at developing, evaluating, and improving these aftercare systems and residential services in particular, must be conscious of several realities. First, concepts of "cure" and "discharge" need to be traded in for concepts connoting long term disabilities requiring possibly lifelong supports (Test, 1981). Humane treatment, patient satisfaction and maximum participation in society are reasonable goals and need to be given more importance in research. Second, the deinstitutionalization movement has come to express and serve cultural values in our society. These values include that: "autonomy, choice, and interdependence are preferable to confinement, incompetence, and dependence; individual contentment is a worthwhile goal; one is best treated in the most natural setting with genuinely caring people; we all share social responsibility to include in our daily lives those who have special and sometimes negatively valued differences" p. 118 (Estroff, 1981). It is important that research continue to study community treatment for its success or lack of success at achieving the goals of deinstitutionalization. Outcome measures such as those used in the present study, community integration and satisfaction with the living environment, must play a role in future residential treatment research.

Psychiatric indicators such as symptom remission and discharge rates have proven to be very poor predictors of community tenure or performance (Meyerson & Herman, 1983). There is an on-going need for studies examining the way services are delivered (social climate, amount of structure, etc.) as well as looking at what services are delivered (halfway houses, day treatment, etc.) and what the outcome is (community integration, acquisition of skills, etc.).

A specific research question raised by the present study is; what is the impact of program characteristics (RPCS) on the social climate (COPES) of a residential setting. The present research treated program characteristics and social climate as separate variables. The program characteristics were seen as the basic frame work (rules, etc.) or skeleton to a residential setting while the social climate was seen as the life (how people are really treated) and flesh of the setting. There can be little doubt that these two variables influence one another and in turn, effect the residents living in the setting.

Lastly, there remains a need for rigorously designed research which utilizes random assignment at all levels of research in residential treatment.

APPENDICES

APPENDIX A

APPENDIX A

CONSENT FOR PARTICIPATION

I freely consent to participate in the Residential Program Characteristics Study. I understand that the study's purpose is to examine the relationship between residential program characteristics and resident's satisfaction with their living environment and their participation in activities outside the residential program.

I understand that all results will be treated with strict confidence and that my individual results will remain anonymous. I also understand that I am free to discontinue my participation at any time. Finally, I understand that the overall results of the study will be made available to me upon request.

_____ _____

Resident or Staff Member Signature Date

APPENDIX B

APPENDIX B

Personal Data Sheet

1. Case #_____ Residence:_____
2. Age_____
3. Sex_____
4. Race_____
5. Educational level completed_____
6. Marital status_____
7. Diagnosis_____
8. Number of psychiatric hospitalizations_____
9. Total length of time hospitalized_____(months)
10. Year of first hospitalization_____
11. Most recent hospitalization_____
12. Number of months in present supervised home or apartment_____
13. Amount of spending money available to client weekly_____
14. Current day program: None_____
    Job_____
    Volunteer Work_____
    School_____
    Vocational program_____
    Day Treatment_____

APPENDIX C

APPENDIX C

Residential Program Characteristics Scale

Please describe the residence in which you work by circling the response which best fits your program.

I.	Structure	Never	Rarely	Sometimes	Usually	Always
1.	Step program with earned privileges	1	2	3	4	5
2.	Regular, required (at least weekly) house meetings	1	2	3	4	5
3.	Clear rules for dismissal	1	2	3	4	5
4.	Curfew	1	2	3	4	5
5.	Passes posted	1	2	3	4	5
6.	Regular assigned chores	1	2	3	4	5
7.	Problem note system	1	2	3	4	5
8.	Residents receive an allowance or step payment	1	2	3	4	5
9.	Regular, scheduled (at least weekly) social activities at house or away	1	2	3	4	5
10.	Residents must get up at a certain time	1	2	3	4	5
11.	Bed times, or lights out time	1	2	3	4	5
12.	Rules governing cleaning of rooms	1	2	3	4	5

Appendix C--continued

II. Responsibility/Independence	Never	Rarely	Sometimes	Usually	Always
13. Client's or house pets allowed	1	2	3	4	5
14. Residents buy and prepare meals	1	2	3	4	5
15. Cars allowed	1	2	3	4	5
16. Residents discuss/approve of dismissal of other residents	1	2	3	4	5
17. Residents select/approve of new residents	1	2	3	4	5
18. Residents supervise own medications	1	2	3	4	5
19. Residents are responsible for arranging and keeping own appointments (medication, day activity, etc.)	1	2	3	4	5
20. Near bus line (½ mile)	1	2	3	4	5
21. Walking distance to business district (supermarket, restaurant, entertainment)	1	2	3	4	5
22. Alcohol is permitted	1	2	3	4	5
23. Residents handle own money	1	2	3	4	5
24. Visitors are allowed	1	2	3	4	5

Appendix C--continued

III.	Staff Supervision	Never	Rarely	Sometimes	Usually	Always
25.	24-hour staffing	1	2	3	4	5
26.	Staff supervise meds	1	2	3	4	5
27.	Staff monitors important appointments, i.e., medication, therapy, day activity	1	2	3	4	5
28.	Staff conduct regular meetings of residents	1	2	3	4	5
29.	Staff plans menus	1	2	3	4	5
30.	Staff shops for groceries	1	2	3	4	5
31.	Staff supervise passes	1	2	3	4	5
32.	Staff supervise curfew	1	2	3	4	5
33.	Staff assign chores to residents	1	2	3	4	5
34.	Staff supervise rooms for cleanliness	1	2	3	4	5
35.	Staff supervise chores	1	2	3	4	5
36.	Staff organize regular, scheduled activities (recreational, social)	1	2	3	4	5

APPENDIX D

APPENDIX D

COMMUNITY-ORIENTED PROGRAMS ENVIRONMENTAL SCALE
(Form S)

The remaining questions are True/False questions about the house or apartment you live in. Please mark your answers in the following way:

True - Check the T if you think the statement is True or mostly True.
False - Check the F if you think the statement is False or mostly False.

Please be sure to answer every statement.

		True	False
1.	Members put a lot of energy into what they do around here.	____	____
2.	The healthier members here help take care of the less healthy ones.	____	____
3.	Members tend to hide their feelings from one another.	____	____
4.	There is no membership government in this program.	____	____
5.	This program emphasizes training for new kinds of jobs.	____	____
6.	Members hardly ever discuss their sexual lives.	____	____
7.	It's hard to get people to argue around here.	____	____
8.	Members' activities are carefully planned.	____	____
9.	If a member breaks a rule, he knows what the consequences will be.	____	____
10.	Once a schedule is arranged for a member, the member must follow it.	____	____
11.	This is a lively place.	____	____
12.	Staff have relatively little time to encourage members.	____	____

Appendix D--continued

		True	False
13.	Members say anything they want to the staff.	____	____
14.	Members can leave here anytime without saying where they are going.	____	____
15.	There is relatively little emphasis on teaching members solutions to practical problems.	____	____
16.	Personal problems are openly talked about.	____	____
17.	Members often criticize or joke about the staff.	____	____
18.	This is a very well organized program.	____	____
19.	If a member's program is changed, staff always tell him why.	____	____
20.	The staff very rarely punish members by taking away their privileges.	____	____
21.	The members are proud of this program.	____	____
22.	Members seldom help each other.	____	____
23.	It is hard to tell how members are feeling here.	____	____
24.	Members are expected to take leadership here.	____	____
25.	Members are expected to make detailed, specific plans for the future.	____	____
26.	Members are rarely asked personal questions by the staff.	____	____
27.	Members here rarely argue.	____	____
28.	The staff make sure that this place is always neat.	____	____
29.	Staff rarely give members a detailed explanation of what the program is about.	____	____
30.	Members who break the rules are punished for it.	____	____

Appendix D--continued

		True	False
31.	There is very little group spirit in this program.	____	____
32.	Staff are very interested in following up members once they leave the program.	____	____
33.	Members are careful about what they say when staff are around.	____	____
34.	The staff tend to discourage criticism from members.		
35.	There is relatively little discussion about exactly what members will be doing after they leave the program.	____	____
36.	Members are expected to share their personal problems with each other.	____	____
37.	Staff sometimes argue openly with each other.	____	____
38.	This place usually looks a little messy.	____	____
39.	The program rules are clearly understood by the members.	____	____
40.	If a member fights with another member, he will get into real trouble with the staff.	____	____

APPENDIX E

APPENDIX E

EXTERNAL INTEGRATION SCALE

This group of questions concerns activities outside the house or apartment where you live. Please circle the response which best describes your activities. Please answer every question.

I.	Very Often	Often	Sometimes	Rarely	Never
1. On a typical day do you go to a coffee shop or restaurant?	5	4	3	2	1
2. On a typical day do you go to the shopping center or local shopping area?	5	4	3	2	1
3. How often in a typical week do you order food from outside or eat out at a local restaurant?	5	4	3	2	1
4. How often in a typical week do you make a purchase at a local store?	5	4	3	2	1

	None	A Little	Half/ Half	Most	All
5. On a typical day how much of your time between 8 a.m. and 5 p.m. is spent at the house?	5	4	3	2	1
6. On a typical day how much of your time between 5 p.m. and 11 p.m. do you spend at home?	5	4	3	2	1

II.	Very Easy	Easy	Not Much Trouble	Dif-ficult	Very Dif-ficult
If you have to arrange your own transportation, without the aid of (operator's name), or walk, how easy would it be to:					
7. Go to a shopping center or a large shopping area:	5	4	3	2	1
8. Go to a park:	5	4	3	2	1
9. Go to a library:	5	4	3	2	1
10. Go to a movie:	5	4	3	2	1
11. Go to a community center:	5	4	3	2	1
12. Go to a restaurant or coffee shop:	5	4	3	2	1
13. Go to a bar:	5	4	3	2	2
14. Go to a public transportation:	5	4	3	2	1
15. Go to the place of worship you prefer:	5	4	3	2	1
16. Go to an organization that offers individuals an opportunity to do volunteer work:	5	4	3	2	1
17. Go to a barber shop or beauty parlor:	5	4	3	2	1
18. Take a walk in a pleasant area:	5	4	3	2	1

Appendix E--continued

III.	Very Easy	Easy	Not Much Trouble	Dif-ficult	Very Dif-ficult
If you wanted, how easy would it be to obtain, outside this house or without the aid of (operator's name) the following things:					
19. Meals	5	4	3	2	1
20. Medical care	5	4	3	2	1
21. Laundry services	5	4	3	2	1
22. Clothing	5	4	3	2	1
23. Toilet supplies and incidentals	5	4	3	2	1
24. A telephone	5	4	3	2	1
IV.					
How easy would it be, if you wanted to:					
25. Telephone and just talk to a member of your immediate family:	5	4	3	2	1
26. Telephone and just talk to a more distant relative:	5	4	3	2	1
27. Get together with a member of your immediate family:	5	4	3	2	1
28. Get together with a more distant relative:	5	4	3	2	1

Appendix E--continued

	Very Often	Often	Sometimes	Rarely	Never
On a typical day how often do you visit with:					
29. Members of your immediate family	5	4	3	2	1
30. More distant relatives	5	4	3	2	1

V.	Very Easy	Easy	Not Much Trouble	Dif-ficult	Very Dif-ficult
How easy would it be, if you want to:					
31. Telephone and just talk to a close friend outside the house	5	4	3	2	1
32. Telephone and just talk to an acquaintance outside the house	5	4	3	2	1
33. Get together with a close friend not in this facility or another like it	5	4	3	2	1
34. Get together with an acquaintance not in this facility or another like it	5	4	3	2	1

Appendix E--continued

	Very Often	Often	Sometimes	Rarely	Never
On a typical day, how often do you:					
35. Visit with close friends not in this house:	5	4	3	2	1
36. Visit with acquaintances not in this house	5	4	3	2	1
VI.					
On a typical day, how often do you:					
37. Visit with close friends not in this house	5	4	3	2	1
38. Visit with acquaintances not in this house	5	4	3	2	1
39. Do volunteer work	5	4	3	2	1
40. Join in the activities of social or political groups outside the house for people who are not considered former patients	5	4	3	2	1
VII.					
On a typical day how often do you:					
41. Go to the park	5	4	3	2	1
42. Go to the library	5	4	3	2	1
43. Participate in some outside sports activity	5	4	3	2	1
44. Go to special sports or entertainment events	5	4	3	2	1

APPENDIX F

APPENDIX F

CONSUMER RESPONSE SCALE[a]

The following questions concern the house or apartment in which you live. Please give your opinion. Please be sure to answer every question.

1. Do you find the living arrangements here to be:

Very Good	Good	Adequate	Poor	Very Poor
5	4	3	2	1

2. For what you get, the amount you pay to live here is:

A very good bargain	A bargain	A fair amount	Too Much	Far too Much
5	4	3	2	1

3. If you know of someone looking for a residential care home, would you recommend this place:

Very Highly	Highly	With few Reservations	With serious Reservations	Not at All
5	4	3	2	1

4. Living here is:

Very Comfortable	Comfortable	Comfortable Enough	Uncomfortable	Very Uncomfortable
5	4	3	2	1

5. The food here is:

Very Good	Good	Adequate	Poor	Very Poor
5	4	3	2	1

6. Are you bored here:

Never	Almost Never	Occasionally	Usually	Always
5	4	3	2	1

7. The rules here are:

Very Good	Good	Adequate	Poor	Very Poor
5	4	3	2	1

8. Do you feel that the appearance and cleanliness of the house is:

Very Good	Good	Adequate	Poor	Very Poor
5	4	3	2	1

9. The amount of privacy here is:

Very Good	Good	Ade-quate	Poor	Very Poor
5	4	3	2	1

10. Do you feel that living here is:

Very Safe	Safe	Somewhat Safe	Unsafe	Very Unsafe
5	4	3	2	1

11. Do you feel that living here is:

Very helpful to me	Help-ful	Somewhat helpful to me	Not help-ful to me	Very Un-helpful
5	4	3	2	1

12. How satisfied are you with the amount of influence you have in what goes on in the house:

Very Satisfied	Satis-fied	Somewhat satisfied	Dissat-isfied	Very Dis-satisfied
5	4	3	2	1

13. How satisfied are you with how much you are expected to participate in house activities and chores:

Very Satisfied	Satis-fied	Somewhat satisfied	Dissat-isfied	Very Dis-satisfied
5	4	3	2	1

14. How satisfied are you with the amount of therapy or treatment you get:

Very Satisfied	Satis-fied	Somewhat satisfied	Dissat-isfied	Very Dis-satisfied
5	4	3	2	1

15. Do you feel that the amount of recreational facilities and activities here are:

Very Good	Good	Adequate	Poor	Very Poor
5	4	3	2	1

16. How satisfied are you with the number of close friends you have here:

Very Satisfied	Satis-fied	Somewhat satisfied	Dissat-isfied	Very Dis-satisfied
5	4	3	2	1

17. About how often do you feel as though you want to move from here:

Very Often	Often	Occasionally	Almost Never	Never
5	4	3	2	1

18. Do you feel that your needs are taken care of here:

Very Well	Well	Okay	Poorly	Very Poorly
5	4	3	2	1

19. As far as doing what you want to do or say around here, do you feel that you are:

Very Satisfied	Satisfied	Somewhat satisfied	Dissatisfied	Very Dissatisfied
5	4	3	2	1

20. Do you feel safe on the street:

Always	Almost Always	During the day but not at night	Almost never	Never
5	4	3	2	1

[a] Adapted for use with a five point Liekert type scale.

APPENDIX G

APPENDIX G

COPES SUBSCALE DEFINITIONS

1. INVOLVEMENT measures how active members are in the day-to-day functioning of their program (spending time constructively, being enthusiastic, doing things on their own initiative).

2. SUPPORT measures the extent to which members are encouraged to be helpful and supportive toward other members and how supportive staff are toward members.

3. SPONTANEITY measures the extent to which the program encourages members to act openly and to express their feelings openly.

4. AUTONOMY assesses how self-sufficient and independent members are encouraged to be in making decisions about their personal affairs (what they wear, where they go) and in their relationships with the staff.

5. PRACTICAL ORIENTATION assesses the extent to which the member's environment orients him toward preparing himself for release from the program. Such things as training for new kinds of jobs, looking to the future, and setting and working toward goals are considered.

6. PERSONAL PROBLEM ORIENTATION measures the extent to which members are encouraged to be concerned with their personal problems and feelings and to seek to understand them.

7. ANGER AND AGGRESSION measures the extent to which a member is allowed and encouraged to argue with members and staff, to become openly angry, and to display other aggressive behavior.

8. ORDER AND ORGANIZATION measures the importance of order and organization in the program in terms of members (how do they look), staff (what they do to encourage order), and the house itself (how well it is kept).

9. PROGRAM CLARITY measures the extent to which the member knows what to expect in the day-to-day routine of his program and the explicitness of the program rules and procedures.

10. STAFF CONTROL assesses the extent to which the staff use measures to keep members under necessary controls (e.g., in the formulation of rules, the scheduling of activities, and in the relationships between members and staff).

APPENDIX G--continued

APPENDIX H

APPENDIX H

Community-Oriented Program
Environmental Scale Scoring Key

Subscale	Item Number	Scoring Direction
1. Involvement	1	T
	11	T
	21	T
	31	F
2. Support	2	T
	12	F
	22	F
	32	T
3. Spontaneity	3	F
	13	T
	23	F
	33	F
4. Autonomy	4	F
	14	T
	24	T
	34	F
5. Practical Orientation	5	T
	15	F
	25	T
	35	F
6. Personal Problem Orientation	6	F
	16	T
	26	F
	36	T
7. Anger & Aggression	7	F
	17	T
	27	F
	37	T
8. Order & Organization	8	T
	18	T
	28	T
	38	F

Appendix H--continued

Subscale	Item Number	Scoring Deviation
9. Program Clarity	9	T
	19	T
	29	F
	39	T
10. Staff Control	10	T
	20	F
	30	T
	40	T

APPENDIX I

APPENDIX I

Summary Data for COPES Scores by Residential Setting

Variable		Residential Setting									
		Abbott	Eureka	Hyatt	Whispering Pines	T.L.H.	Jerome	OASIS	High St.	Sup'd Apts.	Total
Number of Residents		18	7	11	11	7	6	5	9	22	96
Number of COPES Subjects		10	5	10	9	5	4	5	5	20	73
COPES 1 (Involvement)	Mean	2.00	2.80	2.80	2.00	3.00	1.75	2.20	1.40	2.25	2.26
	S.D.	1.33	1.30	1.48	1.00	.71	1.26	1.30	1.67	1.16	
COPES 2 (Support)	Mean	1.60	1.20	2.50	2.33	3.20	1.50	1.00	1.40	2.70	2.14
	S.D.	.70	.84	1.65	1.12	.45	1.29	.71	.55	.98	
COPES 3 (Spontaneity)	Mean	2.10	1.60	1.00	1.11	2.60	1.25	1.40	2.00	2.25	1.77
	S.D.	.88	.89	.94	1.05	.89	1.50	1.34	1.87	1.16	
COPES 4 (Autonomy)	Mean	2.20	1.80	1.00	1.22	2.40	1.25	2.40	3.00	2.70	2.05
	S.D.	.79	1.48	1.05	1.09	.55	.96	.55	1.22	.98	
COPES 5 (Practical Orientation)	Mean	1.40	1.40	1.60	1.89	2.20	1.25	1.00	2.40	1.80	1.68
	S.D.	1.17	1.14	1.08	1.17	1.30	.96	1.00	1.52	.89	
COPES 6 (Personal Problem Orientation)	Mean	1.30	1.40	1.40	1.11	1.60	2.00	1.60	2.00	1.65	1.52
	S.D.	1.06	.55	1.35	.93	.89	.82	1.14	1.58	1.31	

APPENDIX I--continued

Variable		Residential Setting									
		Abbott	Eureka	Hyatt	Whispering Pines	T.L.H.	Jerome	OASIS	High St.	Sup'd Apts.	Total
COPES 7 (Anger and Aggression)	Mean	2.00	2.00	1.40	2.11	1.80	2.00	2.00	1.40	1.60	1.77
	S.D.	1.15	1.22	1.08	.60	1.10	1.41	.71	.89	.82	0.00
COPES 8 (Order and Organization)	Mean	2.20	2.60	2.80	2.78	1.80	1.50	3.20	2.80	2.55	2.52
	S.D.	.92	.55	1.23	.83	1.48	1.00	.84	1.10	1.23	0.00
COPES 9 (Program Clarity)	Mean	2.90	2.40	2.80	3.22	3.20	2.50	2.60	2.60	3.40	2.99
	S.D.	1.29	.89	.92	1.09	.84	.58	1.14	.55	.88	0.00
COPES 10 (Staff Control)	Mean	1.90	2.80	2.90	3.11	2.40	2.75	2.80	2.00	3.00	2.70
	S.D.	.99	.45	.88	.78	1.14	.50	.45	1.41	.79	0.00

APPENDIX J

APPENDIX J

Summary Data for RPCS Scores by Residential Setting

Variable * (RPCS subscales)		Residential Setting: Abbott	Eureka	Hyatt	Whispering Pines	T.L.H.	Jerome	OASIS	High St.	Sup'd Apts.	TOTAL
Structure	Mean	25.88	37.83	41.63	46.00	49.00	50.60	47.67	32.33	23.38	37.40
	S.D.	3.56	3.54	6.78	3.10	1.00	1.95	1.15	1.53	3.85	
Responsibility/ Independence	Mean	30.13	24.88	29.00	35.33	54.00	41.20	36.33	44.00	52.43	36.19
	S.D.	2.30	4.19	2.91	2.42	1.00	4.50	.58	1.00	1.40	
Staff Supervision	Mean	41.00	52.43	55.86	53.17	22.67	36.60	34.33	24.00	19.86	40.53
	S.D.	4.00	4.08	4.88	2.79	4.51	1.52	4.16	0.00	3.29	

* The Residential Program Characteristic Scale was administered to 43 house staff and apartment supervisors. Means and standard deviations were then calculated by residential setting.

APPENDIX K

APPENDIX K

Summary Data for CRS and EI Scores by Residential Setting

Variable		Residential Setting									
		Abbott	Eureka*	Hyatt*	Whispering Pines	T.L.H.	Jerome	OASIS	High St.	Sup'd Apts.	Total
Number of Residents		18	7	11	11	7	6	5	9	22	96
Number of CRS Subjects		13	6	10	10	5	4	5	5	20	78
Number of EI Subjects		9	4	10	10	5	4	5	4	20	71
Consumer Response Scale	Mean	65.85	57.33	72.70	73.10	66.80	54.00	62.80	59.20	71.20	67.21
	S.D.	12.83	17.74	12.63	9.55	12.68	15.30	14.03	8.35	8.69	12.66
External Integration	Mean	133.11	109.25	116.50	130.30	139.60	131.00	108.80	138.00	137.00	129.04
	S.D.	30.77	29.50	22.00	19.45	21.16	48.44	36.07	10.37	21.74	26.31

* Both Eureka and Hyatt are considered rural homes while OASIS is located in a suburban neighborhood.

APPENDIX L

APPENDIX L

Summary Data for Resident's Characteristics by Residential Setting

Variable	Residential Setting									
	Abbott	Eureka	Hyatt	Whispering Pines	T.L.H.	Jerome	OASIS	High St.	Sup'd Apts.	Total
Number of Residents	18	7	11	11	7	6	5	9	22	96
Sex (percentage)										
Female	66.7	85.7	45.5	18.2	42.9	33.3	40.0	66.7	50.0	51.0
Male	33.3	14.3	54.5	81.8	57.1	66.7	60.0	33.3	50.0	49.0
Race (percentage)										
Black	11.1	14.3	0.0	18.2	14.3	0.0	20.0	0.0	9.1	9.4
Caucasian	88.9	85.7	100.0	72.7	85.7	100.0	60.0	88.9	90.9	87.5
Hispanic	0.0	0.0	0.0	9.1	0.0	0.0	20.0	0.0	0.0	2.1
Biracial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	1.0
Marital Status (percentage)										
Single	66.7	71.4	36.4	100.0	100.0	83.3	100.0	66.7	77.3	75.0
Divorced	33.3	28.6	63.6	0.0	0.0	16.7	0.0	22.2	22.7	24.0
Married	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Widowed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	1.0
Diagnosis (percentage)										
Schizophrenia	77.8	42.9	81.8	36.4	57.1	66.7	40.0	55.6	68.2	62.5
Pers. Disorder	0.0	14.3	0.0	18.2	14.3	0.0	40.0	22.2	22.7	13.5
Affective Dis.	11.1	28.6	0.0	0.0	0.0	16.7	0.0	22.2	9.1	9.4
Retardation	5.6	14.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0	3.1
Organic Brain Synd.	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0

APPENDIX L--continued

Variable	Residential Setting									
	Abbott	Eureka	Hyatt	Whispering Pines	T.L.H.	Jerome	OASIS	High St.	Sup'd Apts.	Total
Diagnosis (cont'd.)										
Schizo Affective	5.6	0.0	0.0	45.5	14.3	16.7	20.0	0.0	0.0	9.4
Adjustment Dis.	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	1.0
Current Day Program (No. of residents)										
None	11	3	7	0	0	0	0	3	2	26
Job	0	0	0	0	1	0	0	2	2	5
Volunteer	0	0	0	0	0	0	0	0	5	5
School	0	0	0	1	0	0	0	1	0	2
Vocational	1	0	1	6	5	2	2	0	2	19
Day Treatment	0	4	2	4	1	4	3	2	6	26
Other	6	0	0	0	0	0	0	0	0	6
More Than One Above	0	0	1	0	0	0	0	1	5	7
Age	41.4	39.4	40.3	29.0	25.9	25.5	24.8	31.8	33.1	33.9
Educational Level (mean)	11.8	11.1	10.2	10.8	12.6	12.3	11.4	12.8	12.5	11.8
Number of Psychiatric Hospitalizations (mean)	6.8	5.0	4.6	4.3	4.3	3.0	2.7	6.1	3.3	4.6
Year of First Hospitalization (mean)	1964	1959	1969	1975	1978	1980	1980	1973	1969	1970
Year of Most Recent Hospitalization (mean)	1977	1969	1981	1980	1983	1981	1983	1982	1977	1979

APPENDIX L--continued

Variable	Residential Setting									
	Abbott	Eureka	Hyatt	Whispering Pines	T.L.H.	Jerome	OASIS	High St.	Sup'd Apts.	Total
Total Months Hospitalized (mean)	56.6	158.0	79.1	18.7	7.0	7.3	4.8	14.3	11.1	33.4
Number of Months in Present Setting (mean)	13.8	10.0	11.9	12.5	3.6	5.5	2.0	7.1	10.6	10.0
Amount of Weekly Spending Money (mean)	17.1	23.3	8.0	7.0	16.2	7.0	7.0	36.9	24.2	16.9

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