THE CHRONICALLY MENTALLY ILL
YOUNG ADULT
IN COMMUNITY TREATMENT

by

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A Thesis

Presented to
The Oregon Health Sciences University
School of Nursing
in partial fulfillment
of the requirements for the degree of
Master of Nursing

June 14, 1985

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This study was supported by a traineeship from the United States Public Health Service Grant Number 2 ALL NU00250-08.

ACKNOWLEDGMENTS

This study is dedicated to

....Shirley Murphy, who combines wisdom and compassion in a way that's almost mystical

....Patty Dingman, who has been there in every sense of those words

....all the people at LINC, who do what others say is impossible and do it well

....my husband, John, and children, Mary, J.J., Michael, and Matthew, who tolerate my need for professional growth.

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The deinstitutionalization movement began in 1963, ostensibly to improve the quality of life for chronic mental patients by allowing them to live in the least restrictive environment possible, ending long-term confinement in state mental hospitals. Although the goals for deinstitutionalization were defined, the methods were not. The transition from institution-based care to community-based care has been characterized by fragmentation of services, conflicting goals, programs, and fiscal policies of various human service agencies, and a lack of focus on the severely disabled, who are a stigmatized population in greatest need of coordinated, intensive services (Bachrach, 1983; Talbott, 1981; Turner & TenHoor, 1978). Recognizing these deficits in mental health programs, the National Institute of Mental Health formulated the Community Support Program in 1977 to assist the states in planning and implementing comprehensive community-based services for the Chronically Mentally Ill (CMI). However, most of these programs were developed to serve the institutionalized chronically mentally ill who were returned to community living and community treatment (Bachrach, 1982b). This group is characterized by various central nervous system deficits which cause them to have poor insight and judgment, impaired reality testing, and inability to cope with even minor stressors without

decompensating. Their long-term treatment in state mental hospitals created a particular passivity and dependency on care-providing systems which facilitated the transition to community care.

In contrast, the chronically mentally ill entering treatment during the current era of deinstitutionalization have a different attitude. They have not been socialized into the mentally ill role (Goffman, 1961) and resist involvement in traditional programs. These chronically mentally ill young adults, between 18 and 35 years old, have created particular problems for mental health systems. "As perhaps 10% of our patient population, they consume 40% of our staff time" (Pepper & Ryglewicz, 1982, p.6). It has become evident that these traditional programs cannot deal with the troublesome behaviors and special needs of the young adult chronics, and that it is necessary to develop new and innovative ways to treat them (Bachrach, 1982a; Bachrach, 1984; Pepper & Ryglewicz, 1984).

Current estimates indicate that over two million Americans suffer from mental illness (Goldman, 1983; Shore, 1983). There are 64 million individuals, referred to as the post-World War II baby boom, who represent one-third of this nation's population and who are currently at risk to develop mental health related disabilities (Shore, 1983). The young adult chronics are part of this cohort. Considering the size of the cohort and the special needs of the young

chronic population, these individuals undoubtedly are, and will continue to be, a group which significantly impacts the development and delivery of mental health services in this decade.

The purpose of this study was to describe the treatment of the chronically mentally ill in community settings, with particular focus on the issues and problems of the young adult chronics. Model programs which have attempted to meet the needs of this population are discussed, and the Living in Community Program (LINC) in one Oregon county is examined as a potentially successful model. Given the reported difficulties in treating the young adult chronically mentally ill, disseminating information on community mental health programs which are effectively meeting their needs is a timely issue (Bachrach, 1980, 1982a, 1982b; Pepper & Ryglewicz, 1984).

Of the significant literature addressing the treatment of the CMI in community settings, only one study by a nurse was found. Holly Wilson's (1982) thorough description of the Soteria House model is a clear example of what nurses can do. Nurses currently provide significant and cost-effective services in community mental health centers across the country. There is a need for nursing to validate and publicize its contribution to this major public health issue.

Review of the Literature

To adequately examine the problem of treating the chronically mentally ill young adult in community-based programs, the general characteristics of the CMI population are described. Next the specific issues of the young adult chronics are addressed and finally, model treatment programs are reviewed.

Characteristics of the Chronically Mentally Ill

The target population of the deinstitutionalization movement is the chronically mentally ill, a group of approximately two million Americans (Bachrach, 1982b; Goldman, Gattozzi, & Taube, 1981; Goldman, 1983). Previously contained in state mental hospitals where needs for food, shelter, and mental and physical care were met on a continual basis, the CMI now reside in a variety of community settings, from supervised residential care facilities to skid road alleys. To determine the effectiveness of community support programs, it is necessary to understand the descriptive parameters of the population served. Diagnosed as Schizophrenic, Manic-Depressive, Personality Disordered, and/or a variety of other mental illnesses, these individuals exhibit particular characteristics which make them vulnerable in community settings.

Most obvious are the signs and symptoms of the mental illness, such as limited insight and judgment, varying degrees of cognitive deficits, and impaired reality testing.

These individuals are vulnerable to problems of their own creation, and easily fall victim to others in the environment who wish to capitalize on their inadequacies. Under stress, they are likely to decompensate to psychotic states, with severely disturbed thinking, mood, and behavior (Test & Stein, 1978a; Turner & TenHoor, 1978). Even minimal stressors can be perceived as intolerable, augmenting an already poor self-image and low self-esteem and causing most chronically mentally ill to see themselves as helpless and extremely dependent, particularly on institutions (Test & Stein, 1978b). They seem incapable of establishing and maintaining a natural support system, due to weak ego boundaries, poor object relations, and inadequate and/or inappropriate defenses to handle anger, anxiety, sexuality, and losses (Diamond, 1979).

Recent research has identified certain areas of impaired role functioning which are characteristic of the chronically mentally ill. Most have limited job skills and a poor work history, and are unemployed and/or unemployable. Over 80% of clients in a study by Tessler, Bernstein, Rosen and Goldman (1982) received some form of public assistance with a median estimated monthly income of $325. Simple daily living skills, such as money management, cooking, house cleaning, and personal hygiene are frequently poor or lacking. Tessler and Manderscheid (1982) hypothesized that "successful community adjustment is threatened by impoverishment of the skill repertoires needed to meet the

requirements of everyday living, by behavioral patterns or traits that are bizarre or in other ways violate strongly held social expectations, and by somatic problems that restrict or impair independent activity" (p 204). The concrete thinking which is characteristic of the chronically mentally ill makes it difficult to generalize information and instruction from one setting to another; so to be effective, training in community living skills must occur in the client's natural environment. Additionally, research has shown that clients improve only with direct and continuous intervention and sustain that improvement only as long as treatment continues (Test & Stein, 1978b).

The concept of social support is being explored increasingly with the chronically mentally ill. Most live isolated and isolative lives, with little contact with family and few friends and little day-to-day structure. While they lack the ability to function independently in a social role due to mental illness, they also have very limited support through which to learn social acceptability and proper role performance. Despite this difficulty in developing close relationships, they are frequently characterized as extremely dependent, requiring massive support from institutions to survive (Test & Stein, 1978a).

Varying degrees of these skill deficits, interwoven with individual differences in affective, cognitive, and behavioral impairments, create a highly variable and diverse population. Any one of these factors would make an

individual vulnerable to mental health problems and illness-related disabilities. For those labeled chronically mentally ill, most factors are present, making them at risk for any social, physical, and/or psychological problem imaginable. Because of the great diversity in capacity for rehabilitation, ability to cope with stress without decompensation, and motivation to change, the development of community-based treatment programs which incorporate realistic goals is indeed challenging.

Characteristics of Young Adult Chronics

The term "young adult chronically mentally ill" evolved from a conference in Rockland County, New York in 1980. The focus of this gathering of mental health professionals was the group of 18 to 35 year olds who have become mentally ill in the era of deinstitutionalization, and, for the most part are an "uninstitutionalized generation" (Pepper, Ryglewicz, & Kirshner, 1982). The total number of post-World War II baby boom individuals, who are at risk to develop mental illness, is estimated at 64 million, nearly one-third of the total population of the United States (Bachrach, 1982b). The significant impact of this group on mental health service providers has already been identified.

Young adult chronics differ from their older, deinstitutionalized counterparts in many ways, despite the fact that their diagnosed illnesses are similar. Most obviously, they have not spent long periods of time in state hospitals and are not socialized into the system. They are

unwilling to passively accept the treatment decisions and services that are offered. Rather, they use available services inappropriately, abuse emergency services, and continually resist involvement in long term programs, often being too withdrawn or disruptive to manage. Perhaps also due to a lack of institutional experience, these individuals do not define themselves as mentally ill. This creates part of the noncompliance problem. Medication taking and attendance and engagement in treatment programs are difficult to ensure.

These people seem to be continually struggling with developmental issues, stuck in the transition between adolescence and adult life, never quite able to master the goals of separation and independence (Pepper et al, 1982). Family and friends eventually burn out and young adult chronics are most often left without support systems, and without the interpersonal characteristics necessary to build them. They frequently become transients, and have been described as the homeless generation (Hopper, Baxter & Cox, 1982). Prior to deinstitutionalization, these chronically mentally ill individuals would have found long term care and treatment in state institutions.

As the first generation of mentally ill to have to cope with the stress of continuous community living, the loss of support systems and failure to accept their mental illness are not the only outstanding factors. These young adult chronics are more apt to engage in suicidal and criminal

behaviors and their growing numbers in the nation's prisons and jails have been noted (Bloom, Faulkner, Shore, & Rogers, 1983). The use of street drugs and alcohol create and compound episodes of psychosis and make diagnosis and treatment more difficult. Many seem to feel that self-medication with alcohol and street drugs is more acceptable than using prescribed psychotrophic medications for their psychotic symptoms.

Current research on the young adult chronically mentally ill has been focused on gathering demographic data, identifying and describing personality characteristics and particular treatment goals and problems. The identification of common factors, such as Gruenberg's social breakdown syndrome (Gruenberg, 1982) are useful. Once thought to be an artifact of long-term institutional living, social breakdown syndrome has also been described in the young adult chronic population. Now clearly noted to be an illness-related rather than an environment-related problem, the study of this syndrome contributes a vital piece of information toward clarifying the true nature of mental illness and the difference between internal and external factors.

Another illness-related factor recently identified is the deficit-specific disability (Crabtree, 1985). Underlying characterologic and organic elements (central nervous system deficits) complicate recovery from psychotic episodes. Even when symptoms are controlled, the functional level of these

individuals remains low, and they continue to be "profoundly disabled in basic areas of personal and social development" (Crabtree, 1985, p. 18). Continued exploration of this element will have tremendous implications for the design and delivery of mental health services in the future.

Community-Based Treatment Programs

Two distinct types of community-based treatment programs are reported in the literature (Braun, Kochansky, Shapiro, Greenberg, Gudeman, Johnson, & Shore, 1981; Test & Stein, 1978a). Aftercare programs seek to enhance community adjustment for the chronically mentally ill living in a variety of settings through skill training and ongoing psychosocial support. Alternatives to traditional mental hospital care are innovative models developed by individual communities seeking to provide the least restrictive alternative care for CMIs during acute psychotic episodes. These models will be examined first.

Pasamanick, Scarpitti, and Dinitz (1967) hypothesized that home care of acutely mentally ill individuals, under drug treatment and with family support, monitored by regular public health nursing visits would be more effective than traditional state hospital care. They began a double blind experiment in 1961. Criteria for admission to the study were a schizophrenia diagnosis, without homocidal or suicidal ideation, between 18 and 60 years old, living in particular counties around the study site, and with family willing to provide home supervision. Those admitted to the

study were randomly assigned to one of three groups. Forty per cent (*n*=57) were treated at home with psychotropic drugs, 30% (*n*=41) were treated at home with placebos, and 30% (*n*=54) were admitted to the hospital control group, receiving traditional inpatient care. The weekly nursing visits were primarily structured around medication compliance, although family problem-solving meetings were mentioned as frequent occurrences. This additional intervention created a confounding variable which was not addressed by the researchers. The subjects were given a wide range of psychological tests and followed for 30 months. The three groups were found to be similar demographically. Results indicated that over the study period, 46% of the controls required rehospitalization as compared to 23% of the experimental group. Those in the experimental group which received medications did better than the placebo group. No differences were found between groups on measures of psychiatric function. The mental status scores for both groups improved significantly, but the final level of adjustment remained low (Dinitz, 1979). In a follow-up study five years later (Davis, Dinitz, & Pasamanick, 1974), the differences between home and hospital treatment groups disappeared. The researchers concluded that it was possible to treat schizophrenics at home as proposed, but to be successful, community support had to be ongoing.

The Pasamanick, et al, 1967 study is particularly significant because it was begun in 1961, two years before the deinstitutionalization movement began. It demonstrated that individuals could be managed in home environments during acute episodes. It is doubtful that this study could be replicated as successfully today, however. Persons seeking hospital admission in the 1980's are considerably more acutely ill than those who sought admission in 1960, when admission criteria were less stringent. Moreover, those excluded from this study, having homocidal or suicidal ideation, and without family or other social support to provide shelter, comprise a high proportion of current hospital admissions. Two additional threats to the validity of this study can be noted. There is no clear description of the traditional hospital treatment which the control group received, especially how drugs were used, since this was a major variable. The external validity appeared to be compromised because patients without families, or with families who were unwilling to keep them at home, were excluded from the study, making social support a confounding variable.

Soteria House provides a different model, although similarly attempting to divert hospital admissions. It is a small homelike community facility staffed by trained non-professionals. Proposed as an alternative to the traditional medical model, a comparative outcome study was conducted involving two matched cohorts of first admission,

unmarried persons with schizophrenia, between 16 and 30 years old, who needed hospitalization as determined by screening at a local mental health center (Braun et al, 1981; Mosher & Menn, 1978, 1979; Wilson, 1982). The investigators recognized that the stringent admission criteria would limit the generalizability of the study, but wished to test this intervention strategy with a population noted to be particularly at risk for prolonged hospitalization and chronic disability, that is unmarried, early onset schizophrenics.

Because the house had a sleeping capacity of six patients and two staff, the study size was limited to 37 experimental subjects and 42 controls, with 80% included in the two year follow-up. This small sample size and lack of random assignment made the group too homogenous to generalize results. The control setting, a local community inpatient facility, was oriented to short stay, aggressive treatment, including medications and psychotherapy, and was clearly described in the report. Medications were seldom used at Soteria House; the treatment used was described as "a phenomenological approach to schizophrenia: that is, an attempt to understand and share the psychotic person's experience without judging, labeling, or derogating it" (Mosher & Menn, 1979, p. 74). There was minimal organizational structure in the treatment setting, with staff and patients participating in daily living tasks.

Throughout their reports, the researchers show what appears to be a bias against traditional medical models and medication as a treatment modality (Mosher & Menn, 1978, 1979). It is quite possible that the study results also reflect this bias. The first year follow-up indicated that Soteria patients did not have "the mental patient identity...they have not had their passion suppressed or taken away" (Mosher & Menn, 1978, p. 107). At the two year follow-up point, the experimental group had significantly better occupational levels and independent living skills with less hospital readmissions, although they had received less medications and less outpatient treatment than the control group. There were no significant differences in symptomatology over the two year period.

The Southwest Denver Project (Polak, 1978; Polak, Kirby & Deitchman, 1979) also supports the hypothesis that there is little need for psychiatric hospitalization if adequate psychosocial alternatives exist. The researchers initially conducted a survey of admissions to hospitals and found that they were generally precipitated by social crisis involving the client and his/her primary living group. They then developed a longitudinal study to compare community treatment, in private homes with host families, intensive observation apartments, and home day care, with traditional hospital treatment, which is not described in detail. After initial evaluation, patients were randomly admitted to hospital or crisis homes, where they stayed for short

periods, almost a respite for involved families, while working with mental health workers on solving identified problems in the social environment. Ten of the first 40 patients had to be removed from these crisis homes and admitted to the hospital because of behavior management problems, and were excluded from the study, which may have biased the results. Medication was used aggressively in the experimental group, with psychotic patients receiving hourly doses of phenothiazines in a titration protocol to significantly decrease target symptoms, usually within six hours. Despite the study bias, results of the initial research involving 85 patients was favorable, and the project is still in operation, with this total community model limiting state hospital usage to one bed for a service area of 100,000 persons (Polak et al, 1979).

The Training in Community Living project (Marx, Test, & Stein, 1973; Stein & Test, 1979; Test & Stein, 1978b) is a particularly well researched alternative to state hospital treatment. In the original study (Marx et al, 1973), state hospital staff were transplanted to a community setting and trained. Patients who had been hospitalized 3 to 18 months during the current admission, and considered by treatment staff as not capable of living in the community, were randomly assigned to an experimental or one of two control groups. One of these control groups remained on their current treatment unit, while the other group was moved to a research unit where they received five months of intensive

treatment and were discharged. The experimental patients were taken to the research unit for less than eight days while baseline data was gathered, then moved into the community to a variety of independent living situations. Staff provided intensive support, in vivo coping and life skill training for five months, then linked the patients to existing aftercare. All study subjects were followed for two years. The experimental group was able to spend more time in independent living situations, and was rehospitalized less than controls.

Further research was done on this model by Test and Stein (1978b). One-hundred thirty psychiatrically impaired individuals who presented for admission to a hospital were randomly assigned to experimental or control groups. The control group received short-term hospital care and aftercare. The experimental group received individualized life skill training and support, often on a one-to-one basis for up to fourteen months. No patients were excluded from the study. Several experimental patients required hospitalization due to suicidal or homocidal ideation and/or high dosage medication requirement. Treatment modalities, assessment instruments, and results were well described. Experimental patients had fewer hospital admissions and demonstrated more independent living, but there were no differences between groups on measures of self-esteem, social relations, or leisure activity.

Although results in the aforementioned studies of alternatives to state hospital care were not always significant, each demonstrated that the experimental treatment was at least as good as traditional hospital care. The diversity of the approaches, from the non-medical model of Soteria House to the intensive in vivo approach of the Training in Community Living, certainly indicate that effective treatment strategies could be devised. One consistent limitation of model program studies however, is the fact that they are able to select particular patient types, who meet the requirements of the research goals and are not obligated, as mental health programs are, to accept all types of problem patients (Bachrach, 1980). This patient selectivity, coupled with research staff who are highly motivated and dedicated to achieving specific treatment results, are biasing factors. However, advantages such as avoiding the stigmatization and learned helplessness which accompany state hospital usage cannot be overlooked and further exploration and development of these types of programs should be pursued.

Aftercare models are more traditional programs established to provide ongoing community support for the CMI no longer requiring acute care. Two early but enduring models will be presented.

The Fairweather Lodge Program (Fairweather, Sanders, Maynard, & Cressler, 1969) was one of the earliest attempts to provide long-term rehabilitation in the community, using

an intensive milieu approach. Patients in a VA hospital for psychiatric problems and nearing discharge were randomly assigned to the experimental group, a semi-sheltered work/living group, or the control group, which was discharged to the usual aftercare programs. The sample was biased because only volunteers were placed in the experimental group, but the researchers attempted to compensate for the bias by assigning matched pairs to the groups.

Patients in the experimental group lived together while still hospitalized, developed support ties, then moved to the community to live and work together in a janitorial business. Staff support was initially intensive, but gradually withdrawn. A 36 month follow-up showed that members of the experimental group spent less days in the hospital and had higher employment levels, though these were in lodge-related jobs. There were no differences between groups on measures of symptomatology, psychosocial adjustment, or life satisfaction. Perhaps the structure provided by the peer group work environment averted some hospital events. Medication taking was closely supervised in the lodge, but this extraneous variable was not considered in the measurement of outcomes.

Fountain House (Beard, Pitt, Fisher, & Goertzel, 1963) is a four story brownstone near Times Square in New York City. It has been operating seven days a week for over 20 years, providing social and recreational activities, basic

life skill training, work adjustment, outreach, transitional employment service (close staff supervision while clients receive on-the-job training), and housing (apartments owned by the center and rented to clients) to the CMI who request services. To study the effectiveness of the program, a research project was conducted (Beard et al, 1963) in which subjects were randomly assigned to the experimental group, treated at Fountain House, or the control group, referred to other community agencies. Seventy-five percent of the 274 experimental and 78 control subjects were schizophrenic, with 20% hospitalized over three years and 57% less than one year. There were no significant differences between groups on 19 characteristics measured. Hospital readmission rate was the only dependent variable, and the study did indicate that aftercare did reduce recidivism but not why.

Although both of these classic aftercare models were studied 20 years ago, they are unfortunately still representative of the quality of research which is conducted in the area of community support today. Of all the studies reviewed, no pure research designs were found. Most were program evaluations presented as research. Hypotheses and/or research questions were rarely stated. All used recidivism as the dependent variable. Because this has been a traditional measure of program success, it does provide some external validity, but can no longer be considered standard. Over the past 20 years, hospital admission criteria have changed considerably, becoming much more

stringent, and patients are now much more seriously ill at the point of admission. Methods in the aforementioned studies were well described, though measurement instruments were frequently overlooked, and reliability and validity rarely mentioned. Generalizability of results were compromised by small and biased samples. All model programs discussed, and others reviewed, were developed in response to a recognized need, then evaluated by program workers who may have been biased by the need to prove the program's success.

Although model programs are described in the literature as providing necessary services to deinstitutionalized CMIs and attaining some measure of success, usually decreased recidivism, their usefulness has been questioned. They have been found to be difficult to reproduce and generalize (Bachrach, 1980), not grounded in appropriate theoretical frameworks (Test & Stein, 1978a), nor utilizing scientifically-based information in program planning and evaluation (Braun et al, 1981). Bachrach (1980) recommends that these model programs be considered hypotheses, that is, tests for a series of assumptions regarding the effective care of the CMI in a specific setting. Once individual programs have been evaluated, commonalities can be extracted and utilized as fundamental program elements in a new service delivery system.

Conceptual Framework

The major concept that guided the study design and analysis is the environment, specifically the impact of physical and social environments on the mentally ill. Ecological psychology (Barker, 1968) addresses the vital interrelationship between situational context and behavior and nursing theory addresses nursing's responsibility to create the supportive environment in which patients receive treatment.

The ecological environment is defined as the objective, preperceptual context of behavior, while the psychological environment (following Lewin's work) is the world as a person perceives or is affected by it (Barker, 1968). Barker acknowledged that a person's behavior is connected in complicated ways with internal mechanisms (neurons, neurochemical transmitters) and outside context (behavior settings). Behavior settings are defined as standing behavior patterns together with the part of the milieu to which they are attached (Barker, 1978). These standing behavior patterns involve forces which coerce individual behavior (see Figure 1). A mental patient sent to a state hospital moves into such a behavior setting. The standing behavior pattern assumes the individual to be incompetent and incapable of meeting his/her own needs. The person diagnosed as mentally ill, by virtue of that fact, has a weakened self-concept and is especially vulnerable to this sort of situational conditioning. Thus, if the environment

defines the individual as incompetent, helpless, and incapable of self-control and self-determination, the person will tend to integrate these definitions into his/her own self-concept and respond accordingly (see Figure 1).

Not only hospitalization but all psychiatric treatment, regardless of setting, effectively communicates such a self-concept for many because of the stigma of mental illness (Goffman, 1963). If the individual loses confidence in his/her own judgment and becomes excessively dependent on external factors for cues, the demeaning self-concept is reinforced. Once initiated into the sick role, the person finds that this is a role that he/she can fill. The more time spent in this environment and the longer the sick role is maintained, the more difficult it becomes to let go of the security, protection, and passivity such a position offers. Barker's research indicated that it was possible to predict some aspects of behavior more adequately from knowledge of settings than from knowledge of individual behavioral tendencies. That is, behavior varied less across individuals within settings than across settings.

A person with chronic mental illness suffers from perceptual distortions and misinterprets reality, causing obvious problems in understanding and meeting the demands (standing behavior patterns) of the multiple behavior settings in the environment. In this context, an institutional behavior setting has certain advantages. Expectations for behavior (the patient role) are clearly

defined and constantly reinforced. The structure is clear and does not vary. Because mental patients are sensitive to environmental cues and lack the ego strength and judgment to evaluate misperceptions, they encounter many stressful situations in trying to negotiate the variable demands of behavior settings in the community. Their tenuous coping mechanisms are constantly challenged by the fact that each behavior setting has different standing behavior patterns. Using Barker's examples (Barker, 1968, 1978), a person in church is expected to sit quietly and receives negative feedback (glares, verbal reprimands, possible physical removal) if he/she yells out during a service. Conversely, at a football game, a person is expected to yell and if he/she does not, others may offer negative feedback. Because of the CNS deficits characteristic of chronic mental illness, the afflicted individual cannot comprehend the requirements of various standing behavior patterns or the feedback which emanates from others in the environment. Most often, they react inappropriately and eventually are ostracized. (See Figures 1 and 2)

The implication of Barker's work, however, and the subsequent research of environmental psychologists (Feimer & Geller, 1983; Holahan, 1982; Moos, 1974), is that "the environment represents a tool which can be modified" (Levy-Leboyer, 1982, p. 30). Although the community with its diverse behavior settings cannot be modified specifically, it is possible to assist mentally ill

individuals to understand and cope with the standing behavior patterns they must deal with on a day-to-day basis. Perhaps community mental health treatment of chronically mentally ill young adults can be conceptualized as assisting them to negotiate with and understand the expectations of the environment. Environmental factors have a particularly significant role in assessment and intervention strategies in mental health nursing.

Although nursing's theoretical metaparadigm phenomena of person, environment, health, and nursing are variously described in current conceptual frameworks (Fawcett, 1984; Riehl & Roy, 1980), the environmental element has been the least developed. This deficit is incongruent with the fact that nursing has historically been responsible for creating the environment for patient care (Wilson, 1982). Presently, nursing theories address internal and external environmental impact on patients as separate phenomena. By linking ecology and psychology, the environment can be viewed as a continuous element whose effect on behavior is intimate and profound. Using Barker's framework, a community mental health program which assists young adult chronics to understand and cope with their environment should demonstrate positive outcomes, such as decreased state hospital utilization.

FIGURE 1. The Impact of the Environment

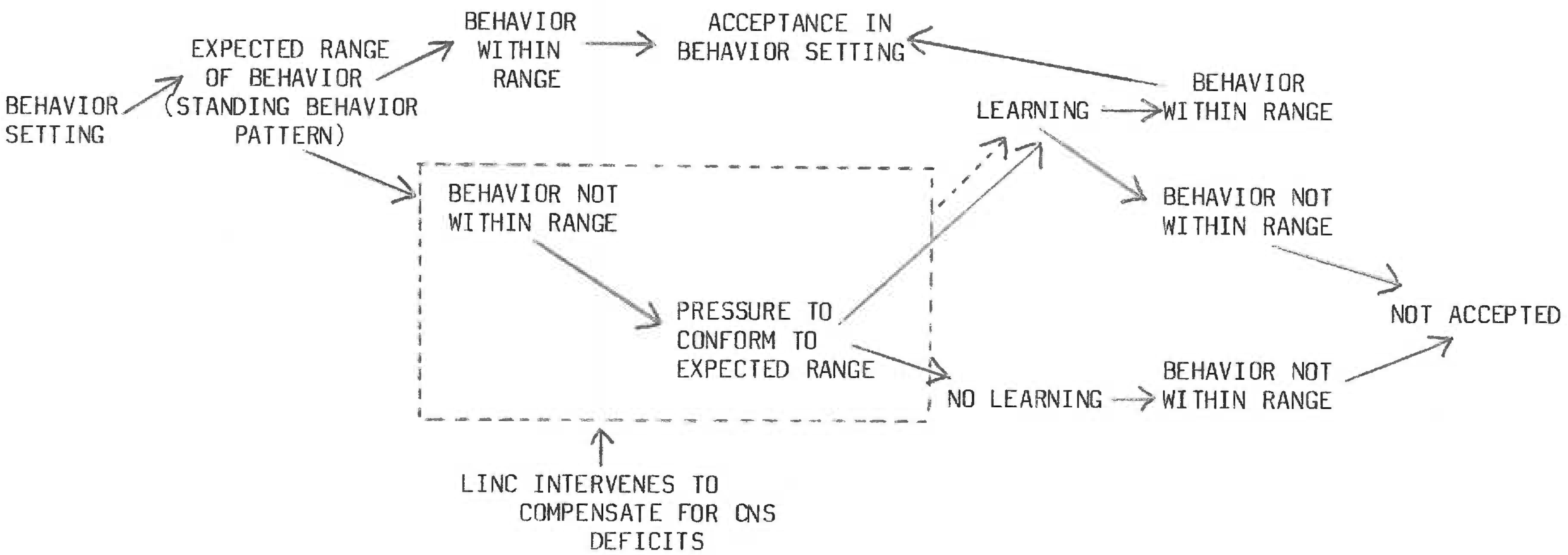

FIGURE 2. LINC Intervention in the Environment of its Clients

Research Questions

This study investigated the ability of a community mental health program with an intensive case management approach to meet the complex needs of the young adult chronically mentally ill. To examine this issue, the following questions were formulated:

1. What are the demographic characteristics of the study population?
2. What are the state hospital use patterns of the study population?
3. Is there a relationship between length of hospital history and ability to graduate from an intensive case management program?
4. Does an intensive case management program decrease state hospital use of its clients?

METHODS

Design

This study was a non-experimental research design, a univariate descriptive study involving a retrospective chart audit.

Setting

To be eligible for the LINC Program, individuals must have a diagnosis of Schizophrenia, Major Affective Disorder, Paranoid Disorder, or another severe mental illness with documented history of persistent psychotic symptoms. They must also demonstrate impaired role functioning in social role, daily living skills, and/or social acceptability, and require intensive support to move to or remain in an independent living situation.

The program is able to serve sixty clients, out of an estimated county-wide population of 400 active clients with severe, chronic mental illness. The county in which LINC is located is the third largest county in Oregon with a total population of 250,000. It is ethnically homogeneous, with only 1.5% of the population non-Caucasian. In 1978, the median household income was $20,000, the second highest in the State. However, 15% of county households earned less than $10,000 annually. It is a largely rural area, with the more populous cities congregated in the northwestern portion of the county.

At the time of this study, LINC staff consisted of a Program Director, one Social Worker, and one Registered Nurse, each of the latter two serving as team leader for two case managers. Case loads were kept at ten, but staff members had additional responsibilities in coordination and implementation of a five day a week Day Treatment program.

Each individual referred to the program is screened with all staff present. A complete assessment of strengths and weaknesses and formulation of the treatment plan is done with client and staff input. Frequently, new clients are still hospitalized or living in a sheltered situation, and initial planning involves locating suitable housing and financial support. Once living in an independent situation, clients receive training in basic life skills. Cooking, shopping, housekeeping, money management, communication, personal hygiene, and community resource utilization are taught with an in vivo approach, wherein the case manager teaches the skills individually to the client in his own environment. Clients are aided and encouraged to structure day and evening hours. When appropriate, they are involved in pre-vocational and vocational training, paid and volunteer work, and various socialization and recreation groups. Because LINC staff offices are located at the Day Treatment Center, socialization and participation in Day Center activities are facilitated. The Center offers classes in budgeting, low income meal planning and basic communication, conducts support groups, and organizes

leisure activities such as bowling and hiking. Drop-ins are welcomed at morning brunch which starts each day's activities with a nourishing meal (cost is $.50 per person). The Center's offerings change every three months, so that new classes and activities are available.

Crisis intervention services are available 24 hours per day through the community mental health program crisis line, with LINC case managers able and willing to respond to their clients' calls with telephone or home visits at any hour, if necessary.

Adequate housing has been identified as a primary need of the CMI in this county, and housing options have been developed which provide varying levels of support for clients. "Our Apartments" was established as a private non-profit transitional apartment program offering semi-independent living experience for eight CMI adults. The residents work closely with a case manager/life skill trainer who is on site 40 hours per week. Four public housing units (HUD houses) were developed via a cooperative agreement between the County Housing Authority and LINC which provide supportive independent living for fourteen clients. Clients meet weekly with LINC staff to discuss problems of daily living together, while maintaining close relationships with their primary case managers. LINC staff work closely with the County Housing Authority to allow clients to utilize Section 8 housing assistance, paying only 30% of their monthly income for shelter, while the Housing

Authority pays the balance. The availability of housing has also been increased by staff members who negotiate with various private sector landlords to rent to program clients. Staff serve as references for the CMI and then closely supervise the living situation to minimize problems. A revolving loan fund is available to clients for rent and utility deposits when meager welfare checks cannot cover major expenses.

Weekly medication groups allow clients to maintain close contact with prescribing physicians, to assure optimal therapeutic benefits with minimal side effects and enhanced compliance with the treatment regimen. Case managers participate in these meetings and are able to reinforce decisions in other contacts with clients. Individual, group, and family therapy are utilized as indicated and provided by LINC staff.

Sample

The study sample consisted of all LINC clients who were in the program, or were admitted to the program, between January 1, 1982 and December 31, 1983.

Data Collection Procedure

A data collection form (See Appendix A) gathered information through a retrospective chart audit of client records at the State Hospital and County Mental Health Center offices. Demographic data, such as age, gender, diagnosis, source and level of income while in LINC, type of housing, and source of referral to LINC was gathered to

determine the characteristics of the population served. The outcome measures, number of hospitalizations and number of days hospitalized prior to and during LINC involvement were compared. A uniform time period of 12 months before and 12 months after entry into the program was used to determine the program's impact on recidivism. Only state hospital histories were used to provide client hospitalization data since County data does not include clients' total hospital histories. Therefore, recidivism in this study reflected state hospital utilization only.

Although some authors have questioned the use of recidivism as an outcome measure, Anthony, Cohen, and Vitalo (1978) note that not only is it a data link to previous studies, but it is also easily standardized, has face validity as a measure of program success, and has traditionally served as a standard for program planning and development.

Data Analysis

Descriptive statistics were used to examine demographic data and outcome variables. One-way analysis of variance was used to compare three groups (current LINC clients, clients who completed the program, and drop-outs) on outcome variables and selected demographic data. A repeated measures analysis of variance was used to compare hospital histories of continuers and clients no longer in the program. Significance level was set at $p<.05$.

RESULTS

The results are presented in four sections, each addressing a research question.

Findings for Research Question One

What are the demographic characteristics of the study population?

There were 86 clients who participated in the LINC program between January 1, 1982 and December 31, 1983. Of these, two were dropped from the study because of insufficient data. Thus, 98% of the population was represented in this study.

The clients ranged in age from 18 to 55 (See Figure 3). Forty-nine percent were between 18 and 25. Of these, 14% were between 18 and 20 years of age, and 35% between 21 and 25 years. The mean age was 27.

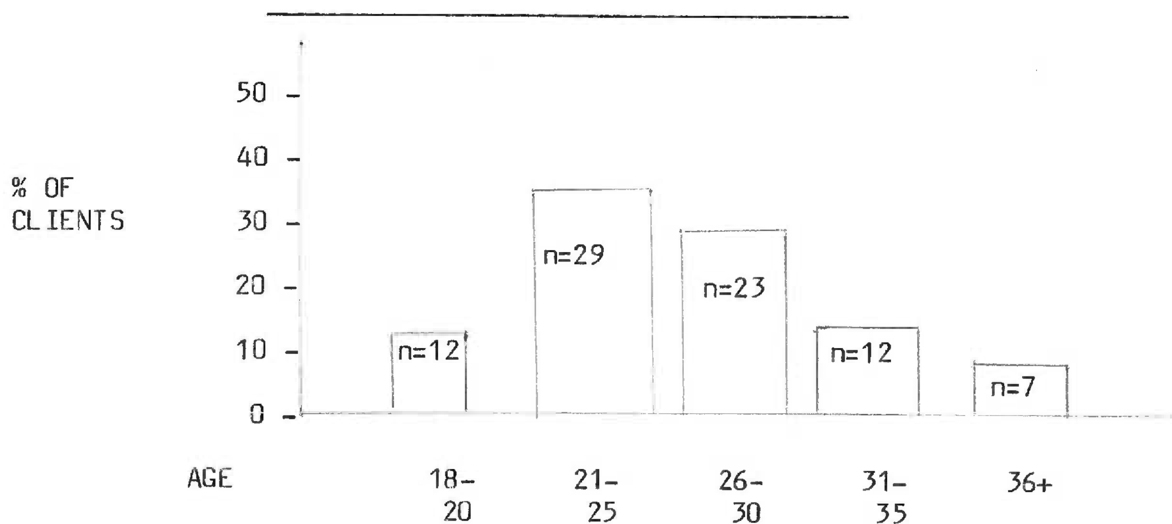

Figure 3. Age of LINC Clients on Admission to Program

Sixty-four percent (n=54) of the sample were male, and 36% (n=30) were female. All clients were caucasian. All clients were single, although 15% (n=13) had been married in the past.

Fifty-eight of the clients (69%) carried a primary diagnosis of Schizophrenia. Another 14% (n=12) were diagnosed as having Bipolar Affective Illness. The remaining 17% (n=14) carried diagnoses such as Borderline Personality Disorder, Dysthymic Disorder, Atypical Psychosis, Organic Brain Syndrome, and Alcoholism.

Clients were referred to the LINC program by State Hospital Staff (42%, n=35) and County Outreach staff (54%, n=45). Four clients (4% of the sample) were self-referred. Prior to entering the LINC program, 42% (n=35) resided at the state hospital, 16% (n=13) were in group homes, and 27% (n=23) lived with family (See Figure 4). Only 5% (n=4) lived independently. Ten percent (n=9) lived in other situations, with room mates, in jail, or with friends.

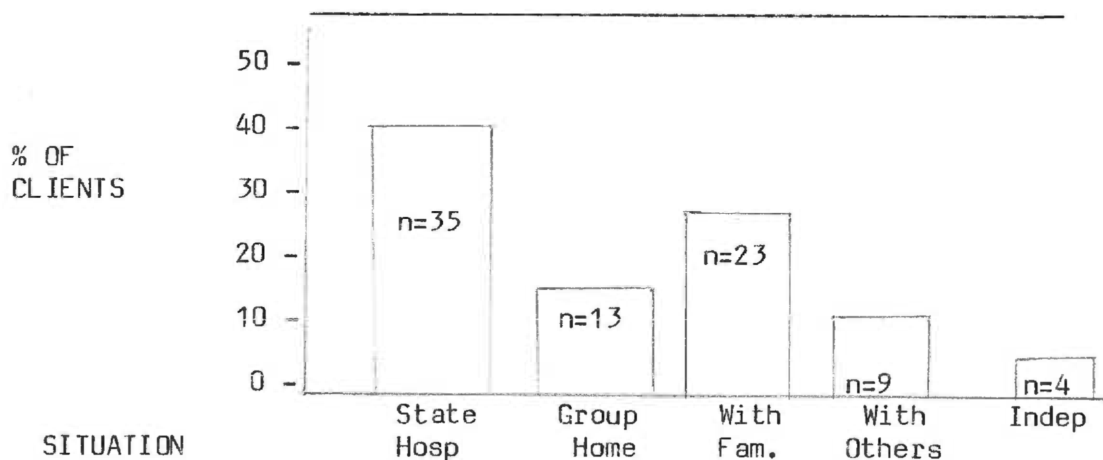

Figure 4. Living Situation Prior to LINC Admission

While in the LINC program, 30% (n=25) were supported by SSI and 49% (n=41) by welfare payments. Only 8% (n=7) were employed. Eleven clients (13%) had other income sources, such as VA pensions, parental support, and SSD.

Clients' tenure in the program ranged from 1 to 47 months (See Figure 5); the mean was 15 months. Forty-eight percent (n=40) had been in the program less than 12 months, and 20% (n=17) had been in the program more than 24 months.

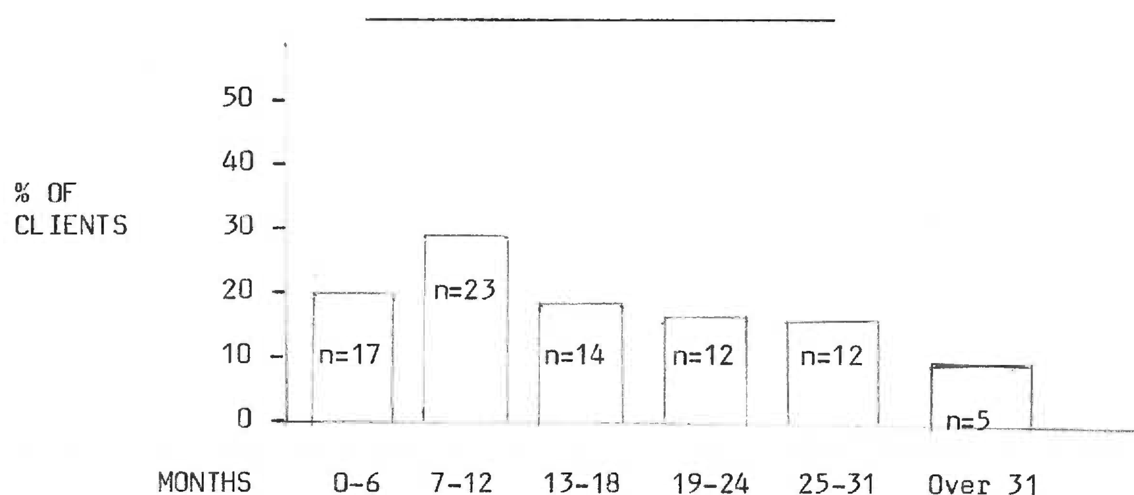

Figure 5. Months in the LINC Program

Of the 83 subjects with complete data in this study, 36 (43%) were still in the program; 20 (24%) had been out of the program less than one year; 22 (26%) between one and two years; and 5 (6%) two to four years. Ten clients (12%) were considered drop-outs because they quit the program or were terminated as unable to benefit from program services.

Thirty-seven (44%) graduated from the program and were able to move to Outreach Program supervision and more independent living.

Findings for Research Question Two

What are the state hospital use patterns of the study population?

Prior to entering the program, clients had been in mental health treatment for greatly varying lengths of time (See Figure 6). Twenty per cent (n=17) had received treatment for less than one year and another 22% (n=19) for one to two years. Thirty-four per cent (n=29) had a two to five year history of care and 19% (n=16) had six to ten years of care. Additionally, one client had been receiving mental health treatment for 14 years and another for 15 years.

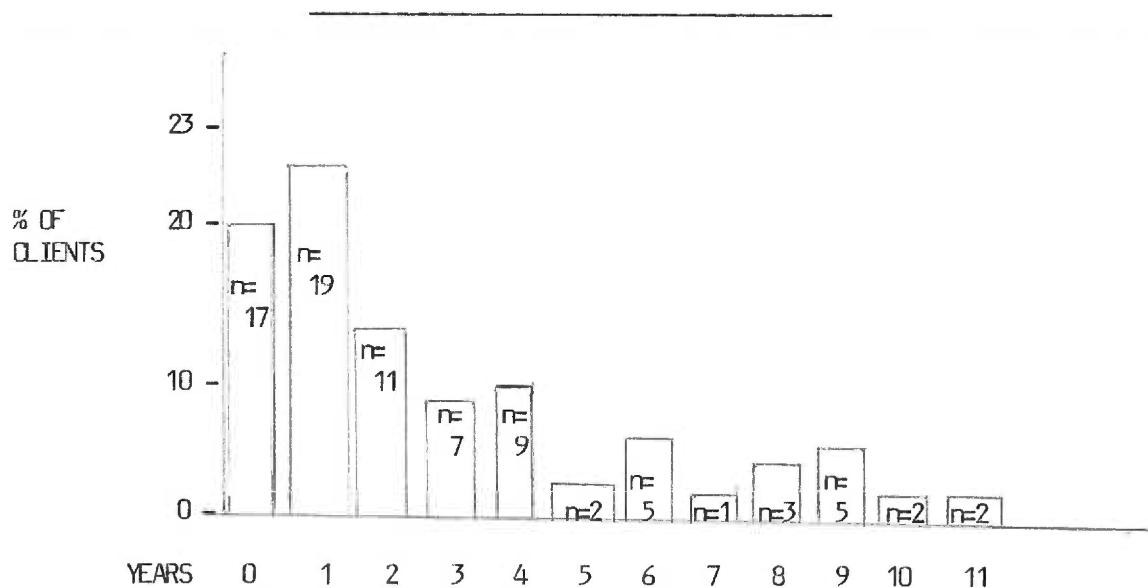

Figure 6. Total Years in Treatment Prior to LINC Admission

In examining total hospital histories prior to LINC involvement, it was found that 20% (n=17) had never been hospitalized in the state hospital system, 26% (n=22) had been hospitalized only once and 14% (n=12) twice. Twenty-three percent (n=29) had been hospitalized three to five times, while 16% (n=12) had had 6 to 15 admissions (See Figure 7).

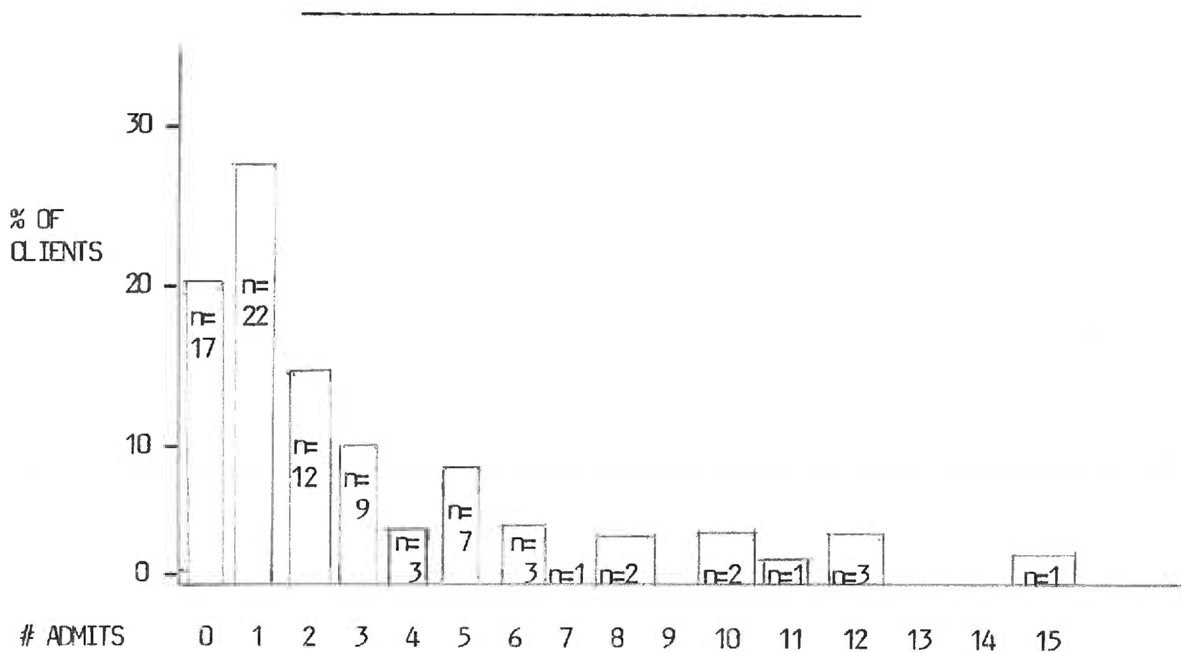

Figure 7. Total State Hospital Admissions Prior to LINC

The total number of hospital days for each client ranged from 0 to 2,262 (See Figure 8). Twenty percent (n=17) had not been hospitalized in the state system. Twenty-three percent (n=23) had been hospitalized less than 90 days and 30% (n=25) between 91 and 365 total days.

Twenty-two percent (n=18) had been in a state hospital more than one year, with six of these clients having spent more than three years of their lives in institutions.

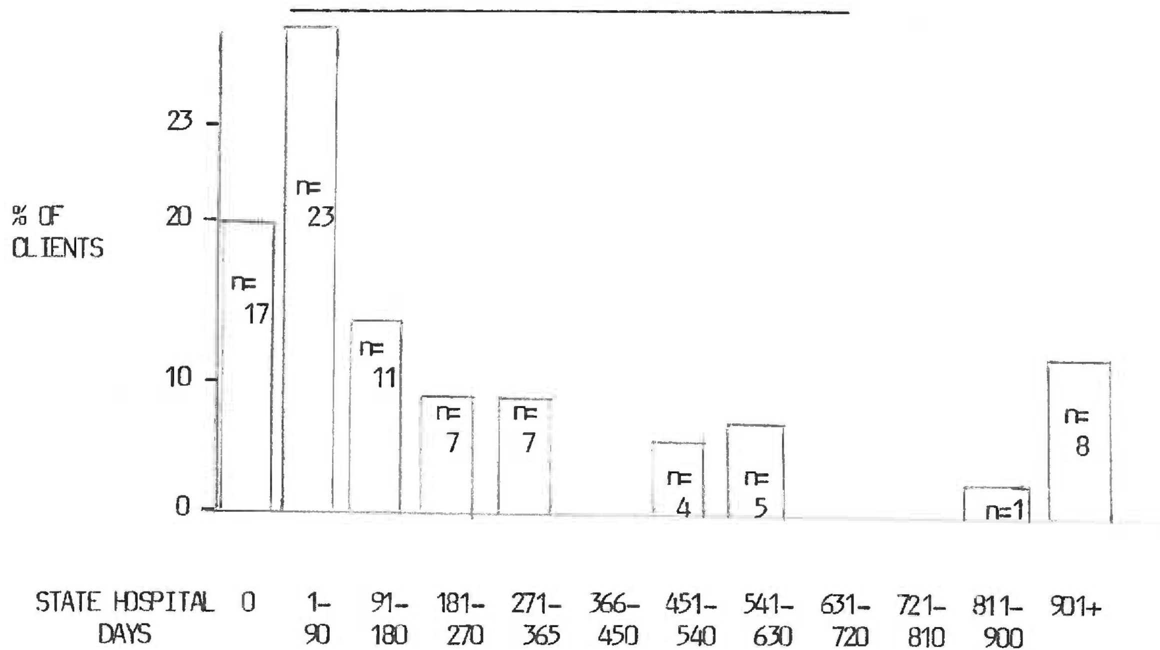

Figure 8. Total Number of Hospital Days Inpatient Prior to LINC

In the twelve months prior to admission to the LINC program, 48% (n=40) had not been hospitalized in the state system, and 31% (n=26) had had one admission (See Figure 9). Eleven per cent (n=9) had had two admissions and 7% (n=6) had three. One client had four, and another six admissions in the year.

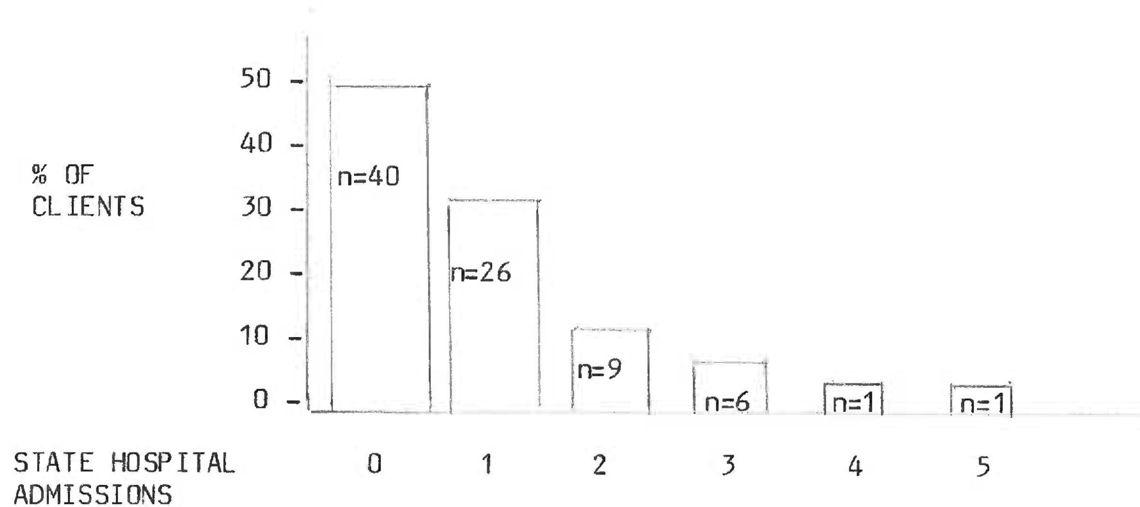

Figure 9. Number of State Hospital Admissions in the 12 Months Prior to LINC Admission

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Total inpatient days for clients hospitalized in the one year prior to LINC admission ranged from 1 to 365 days (See Figure 10). Nineteen percent (n=16) had 1 to 60 days of care while another 18% (n=15) had 61 to 120 days. Twelve clients (14%) were hospitalized more than four months out of that year.

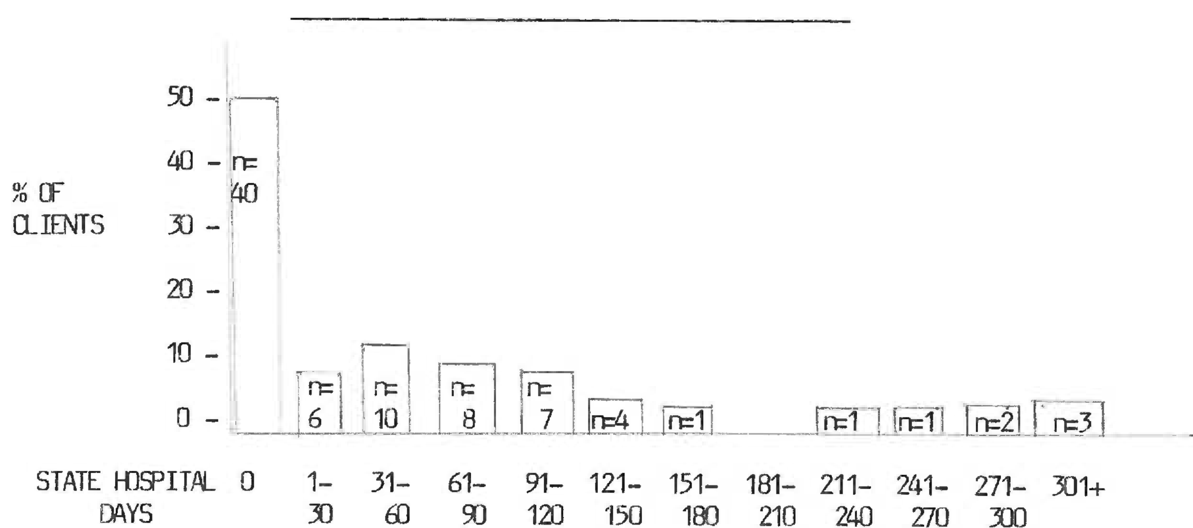


Figure 10. Total Number of State Hospital Days in 12 Months Prior to LINC

In the first year of LINC involvement, 84% (*n*=70) did not require an admission to a state hospital. Nine percent (*n*=8) were hospitalized once, 5% (*n*=4) twice, and one client had three admissions. Total hospital days in the first year varied from 1 to 111 days, with 8 of the 13 clients requiring less than two months of care. For all 84 subjects, there were 73 hospital admissions totalling 4,769 days of inpatient care in the one year prior to LINC admission. Again for all clients, in the first 12 months of LINC involvement, there were only 19 hospital admissions totalling 894 days, indicating an 80% decrease in state hospital bed utilization for the year.

An average rate of hospitalization for the sample was computed by dividing the total number of hospital admissions of the group by the total years of treatment of the group. Prior to LINC involvement, clients had an average of .92 admissions per year, and after LINC admission, this dropped to .57 admissions per year.

Findings for Research Question Three

Is there a relationship between length of hospital history and ability to graduate from an intensive case management program?

A one-way analysis of variance between three groups (current LINC clients, graduates, and drop-outs) was performed to determine if there were any significant differences between groups on selected demographic and outcome variables, so that indicators of success in the

program could be identified. The drop-outs were younger (mean age 24), the graduates were not significantly older (mean age 25), but the continuers were older (mean age 29) (See Table 1). Other than age, no significant differences were found on any of the variables previously discussed.

Table 1. Age of Continuers vs Graduates vs Drop-Outs

Source	df	MS	F
Between Groups	2	231.1660	6.469*
Within Groups	81	35.7365	

*$p < .05$

A repeated measures analysis of variance compared hospital histories prior to and during LINC involvement of program continuers and hospital histories prior to and after LINC involvement for graduates and drop-outs (See Table 2 and Figure 11). Those who remained in the program had a mean of 3.2 prior hospitalizations totalling 338 days, whereas those no longer in the program had a mean of 2.6 prior hospitalizations and a mean of 243 inpatient days. While in LINC, the hospitalization mean dropped to 0.4 and inpatient days to 12.7. Once clients left the program, the mean for hospital admissions was 0.5 and inpatient days rose to a mean of 30.5 (See Figure 11).

Table 2. Hospital Histories of Continuers vs Graduates vs Drop-Outs

	Hospital Admissions			Inpatient Days		
Source	df	MS	F	df	MS	F
Between People						
Continuers	40	6.66524	28.67555*	40	140594.75976	15.67753*
Graduates	41	7.24884	19.40841*	41	82054.73316	12.04825*
Within People						
Continuers	41	9.58537	28.67555*	41	188376.73171	15.67753*
Graduates	42	6.98810	19.40841*	42	100304.17857	12.04825*

*$p < .001$

Findings for Research Question Four

Does an intensive case management program decrease state hospital use of its clients?

A repeated measures analysis of variance was done to determine hospital use patterns of LINC clients. The continuers, those who remained in the program throughout the study period, had a mean of 0.7 hospital admissions with a mean total of 56.6 days in the one year prior to entering the LINC program. In the first year of program involvement, the rate dropped to an average of 0.2 hospitalizations and 6.1 days inpatient (See Table 3 and Figure 11). Those who had graduated from or dropped out of the program had a mean of 1.0 hospital admissions in the one year prior to program entry, with a mean total of 57.2 days. In the first year of

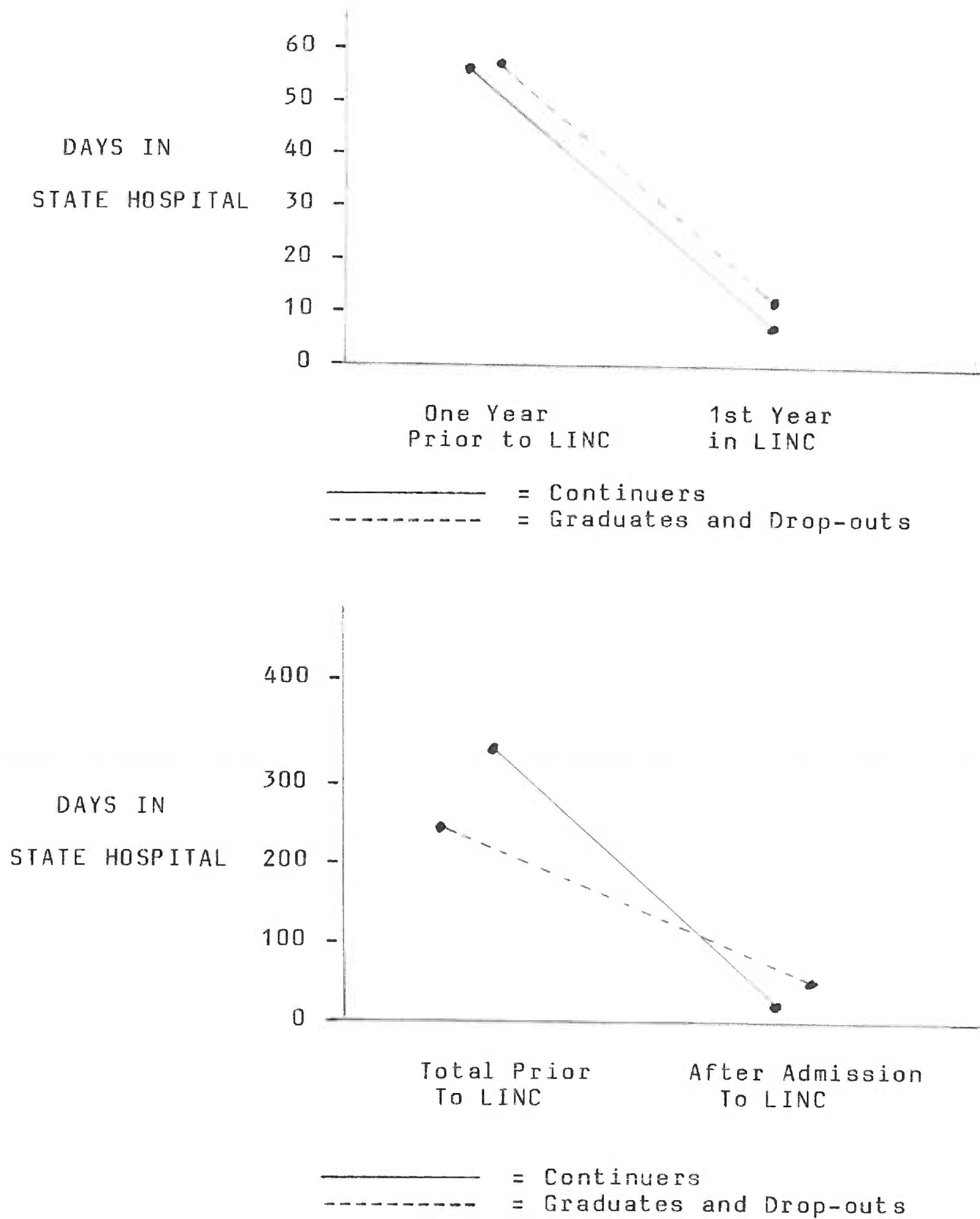
LINC, the group mean was 0.2 admissions totalling 9.5 days (See Table 3 and Figure 11). While examining the hospital histories of graduates vs continuers, it was found that while in LINC, the hospitalization mean dropped to 0.4 and inpatient days to 12.7. Once clients left the program, the mean for hospital admissions was 0.5 and inpatient days rose to a mean of 30.5 (See Table 2 and Figure 11).

Table 3. Hospital Use Patterns of Clients

	Hospital Admissions			Inpatient Days		
Source	df	MS	F	df	MS	F
Between People						
Continuers	40	0.85976	14.66667*	40	5534.83598	11.38375*
Graduates	41	0.97096	11.95444*	41	3422.01190	12.82194*
Within People						
Continuers	41	0.53659	14.66667*	41	5752.85366	11.38375*
Graduates	42	1.28571	11.95444*	42	4783.05952	12.82194*

*$p < .001$

Figure 11. Changes in Hospital Use Patterns



DISCUSSION

The LINC Program seeks to maintain chronically mentally ill young adults in independent living situations, using state hospital treatment only as a last resort. This study was done to determine how well this program is meeting its goals of (1) serving the young adult chronically mentally ill in the specified county, (2) reducing state hospital bed utilization and client recidivism, and (3) improving community living skills of CMI clients.

Eighty-three percent of the clients in this study had a primary diagnosis of Schizophrenia (69%) or Bipolar Disorder (14%), both chronic mental illnesses. Eighty percent had decompensated to the point of requiring 1 to 15 state hospital admissions prior to LINC program involvement and had 1 to 15 years of mental health treatment history; the mean was three years of mental health care. LINC clients, then, meet both diagnostic and longevity of illness criteria for chronic mental illness. In addition, 93% of the clients served were between 18 and 35 years old. Most community-based intensive case management programs described in the literature have attempted to reintegrate institutionalized, older, somewhat passive individuals into less structured settings. The institutionalized population have learned, after many years in a structured environment, not to challenge the care-giving system. In contrast, LINC clients are primarily young adult chronics, a group recently

described in the literature as having particular characteristics and management problems. Although they frequently use and abuse emergency services, they are unwilling to engage in long term treatment. They are highly non-compliant with any treatment regimen, especially medications, and usually live a transient life style, alienated from family and unable to build an adequate support system. These individuals must learn to deal with the mental health system as well as the larger community system for housing and support needs. They must learn living skills, coping skills, and most significantly how to deal with the overwhelming impact of chronic mental illness. They have not been socialized into the CMI role as older clients have.

LINC's priority is to decrease state hospital bed utilization for the county, and recidivism of its clients. Examining hospitalization data in a uniform time frame (12 months prior to LINC entry and the first 12 months of the program), it was found that clients had had 73 state hospital admissions, totalling 4,769 inpatient days. Once in LINC, during the first year, these same 84 clients required only 19 hospital admissions, totalling 894 inpatient days. This represents a 74% reduction in hospital admissions and an 82% reduction in hospital bed days for the group. Eighty-four percent of the clients who had been in the program more than six months (long enough for the program to have some impact on them) had no hospital

admissions in the first twelve months of LINC, whereas only 20% of these same clients had had no state hospital admissions in the year before LINC entry. Although some of these individuals had little state hospital history, others had extensive records. Client A had been hospitalized twice for a total of 306 days in five years of hospital history prior to LINC involvement, and in the 23 months since entering LINC, had no hospitalizations. Client B had 9 prior hospitalizations, totalling 688 inpatient days, in 9 years of care, and no hospitalizations in 22 months of LINC. Client C had two hospital admissions, totalling 556 days in only two years of treatment history, and one hospitalization of 80 days in 47 months of LINC involvement. Client D, in LINC for 16 months, had a history of 8 hospitalizations in 4 years, totalling 1,005 inpatient days and only two admissions totalling 18 days since entry. Client E had had 12 hospitalizations in 9 years, totalling 1,578 days and no hospital events in the 14 months since entering LINC. These clients not only had long institutional histories, but also the negative, helpless self-image which evolves. Yet, they were able to avoid return to the security of the hospital setting. This represents significant learning both in the areas of community living and self-image and self-esteem.

No significant differences were found between LINC continuers and graduates when hospitalization rates were compared. The decrease in state hospital use was significant for both groups. Number of inpatient days in

the one year prior to LINC entry was a mean 57 days for both groups, and in the first year of LINC involvement this decreased to 6 days for the continuers and 10 days for graduates. In examining total prior hospital histories, it was found that continuers had an average of 3.2 prior admissions totalling 338 inpatient days, while graduates had 2.6 admissions with a mean 243 inpatient days. Those who had spent longer periods of time in state hospitals can be assumed to be more severely psychiatrically impaired, more dependent, and less able to negotiate with the community environment. It is logical that they would require longer and perhaps indefinite treatment in the intensive case management program.

Forty-two percent of new clients were referred from the state hospital and 54% by county Outreach staff. Of those referred from the community, only 5% came from independent living situations, the rest from dependent settings such as group homes (16%), family homes (27%), and jails and friend's homes (10%). The limited living skills, cognitive and behavior deficits, and poor stress tolerance of the CMI population compound the risk of failure and psychiatric decompensation as they attempt to move to independent living situations. The multiple demands of various behavior settings complicate this task. While continuing to provide service to hospitalized individuals, LINC is able to be responsive to the needs of the community mental health program as well. Without the intensive services that LINC

provides, many of these Outreach clients would probably fail to adjust to independent living and ultimately require hospitalization or return to a more restrictive community setting.

The average length of stay in the LINC program was 15 months, and data on the number of months in the program for each client is fairly equally distributed (20% in the program 0 to 6 months, 28% in 7 to 12 months, 17% in 13 to 18 months, 15% in 19 to 24 months, 15% in 25 to 31 months, and 5% more than 32 months). Movement through the program is constant, and slots for new clients made available regularly, enabling the program to be responsive to community needs and emergency situations as well.

Actual level of functioning measures were not gathered in this evaluation because of the inconsistency of county records, wide range of individual raters, and inability to gather uniform data. However, some elements of this study demonstrate the improving functioning of LINC clients.

Forty-four percent of the population surveyed had graduated from LINC. They had developed sufficient independent living skills to move to Outreach supervision.

The decrease in state hospital admissions, previously discussed, can also be considered as indicating improved functioning of these clients. For the 80% of LINC clients with state hospital histories, and especially the 25% with five or more prior hospitalizations, the great decrease in hospital utilization means the development of new coping

strategies and adaptive living skill repertoires which permit them to deal with the community environment and their mental illness-related disabilities without resorting to state hospital care. The negative situational conditioning which occurs with institutionalism and the firmly ensconced sick role also would have been substantially overcome.

While in the program, 79% of the clients were supported by SSI or welfare payments, which averaged $200 to $300 per month. Teaching the CMI to live comfortably on such a low income is difficult at best. The need for low income housing, which is a program priority, is easily identified. The fact that 44% of LINC clients have graduated, and 82% of the population did not decompensate to the point of requiring hospitalization in the first year of LINC indicates that clients are able to learn adaptive living skills on very low incomes. Only 12% of the total sample dropped out of the program, which means that LINC staff were able to engage 88% of clients successfully in this difficult series of tasks.

It is not possible to compare the findings of this study with others because similar works could not be found. The current body of research literature documents treatment options for older, deinstitutionalized CMIs. Studies of the chronically mentally ill young adult discuss the demographic parameters of the group, and these were comparable to the population described in this study. Although various

treatment possibilities are discussed, research designed and implemented to truly define the needs and programmatic solutions for young adult chronics currently do not exist.

The average LINC client is white, single, less than 27 years old, and carries a diagnosis of Schizophrenia. This prototype client has had few hospitalizations and less than one year of treatment in the state mental health system, clearly the description of the young adult chronic. Having previously lived in a dependent setting, he or she must learn to live independently on a total monthly income of $200 to $300. However, although 20% of LINC clients have no state hospital history, another 20% have been hospitalized more than one year, 365 inpatient days. The LINC program's ability to engage this diverse and difficult population in treatment, and assist them to live independently in the community, with its multiple behavior settings, is impressively documented.

Nursing Implications

Nursing has traditionally been responsible for the creation of treatment environments. The community settings which have become the living and treatment environments of the chronically mentally ill are not currently providing the elements necessary to meet the complex needs of this group. Research is just beginning to address these issues. Although mental health nurses currently provide important services in community mental health programs, they are not represented in the literature and therefore their contributions are

largely unrecognized and unvalidated. Nurses should demonstrate a more active participation in the development and maintenance of programs for the chronically mentally ill.

This issue is directly addressed by current American Nurses' Association Standards of Psychiatric and Mental Health Nursing Practice (1982). Standard X, which applies to the role of specialist, states:

> The nurse participates with other members of the community in assessing, planning, implementing, and evaluating mental health services and community systems that include the promotion of the broad continuum of primary, secondary, and tertiary prevention of mental illness. (p.17)

Interventions at the systems level in the development and implementation of mental health services as consultant and activist are acknowledged as appropriate. Particularly relevant to the current needs of the chronically mentally ill young adult is the statement that the specialist "participates in the delineation of high-risk population groups in the community and identifies gaps in community services" (ANA Standards, p. 18).

Perhaps the most important implication for mental health nursing, then, involves the tremendous need for advocacy. The chronically mentally ill, and especially the young adult chronics, have significant needs and deficits, which are not being cared for by the current mental health system. Although they are among the most severely disabled groups in this country, they are unable, because of the

nature of their mental disabilities, to make their needs known and advocate for needed services. Through research and other published articles and political activism, nurses can become the much needed advocates of the chronically mentally ill.

Limitations

Because there is a lack of manipulative control of independent variables in descriptive research, causal relationships cannot be inferred (Polit & Hungler, 1983). Although the decrease in recidivism rates in this study are significant, it is not possible to draw a cause and effect conclusion, that is, to state that LINC intervention caused the decrease in state hospital utilization.

Designing an experimental research study which controls for the numerous antecedent and intervening variables present in the chronically mentally ill population would be challenging. Antecedent factors such as premorbid level of functioning, length and severity of mental symptoms, treatment histories, personality characteristics, and social support are highly diverse. Intervening variables such as social support, medication usage, severity of illness, and personality characteristics also confound study design. However, the tremendous needs of this population, unmet by the current mental health system, require research which identifies successful treatment modalities. The intensive case management approach, with a strong housing component,

such as the LINC model, may provide the necessary elements to maintain the chronically mentally ill in community settings. Only an experimental research design would allow conclusive statements to be made.

Summary

The national policy of deinstitutionalization, the treatment of the chronically mentally ill in the least restrictive environment, began over 20 years ago. Community mental health systems continue to struggle to develop appropriate, cost effective programs and much attention has been drawn in recent years to the fact that the quality of care, and quality of life, of deinstitutionalized CMIs is dismal. Perhaps the most critical need at this time is the development of services for young adult chronic patients. This group has limited access to institutional care and limited involvement in community programs. Their troublesome psychiatric symptoms and behaviors have been impressively documented in recent years and local community responses to their needs are present in the literature. However, at this time, no clear national policies or viable treatment protocols exist for chronically mentally ill young adults.

Although young adult chronics and their older, deinstitutionalized counterparts share similar diagnoses and similar CNS deficits, the young adult chronics have proven to be difficult to engage in treatment, more volatile, transient, and troublesome. They seem to resist the label of CMI and seek to compete, although unsuccessfully, with their normal peers.

The primary difference between prior institutionalized generations of the chronically mentally ill and the young adult chronics is the environment of their care. The institutional setting was clearly structured, unvarying, and the patient role explicitly defined and constantly reinforced. Young adult chronics must cope with the variable behavior settings in the community and understand and meet the demands of multiple and diverse standing behavior patterns. Because of the central nervous system deficits present in chronic mental illness, this task is overwhelming. Impaired reality testing, poor insight and judgment, inability to develop or maintain support systems, and tendency to decompensate under stress make the challenge of adapting to community standards difficult.

Various treatment models have been designed and reported in the literature. Those which seek to enhance adjustment to the community environment, through in vivo life skill training and instruction in coping strategies have demonstrated success.

The LINC Program, explored in this study, utilizes intensive case management, with 24 hour crisis availability to assist young adult chronics to live independently. By supporting central nervous system deficits and realistically balancing treatment needs, both psychiatric and psycho-social, with environmental demands, LINC is able to keep 88% of program clients involved and 84% out of the state hospital.

The implication of this study is that it is possible to treat young adult chronics in a community mental health program with notable success. Current research is limited due to lack of a viable theoretical framework and methodological difficulties in designing studies. Mentally ill subjects whose contact with reality and therefore responses to research questions is tenuous, make research design and implementation challenging.

Nursing has a primary role in designing and maintaining treatment environments, and the strong and valuable presence of mental health nurses in community mental health treatment settings make the issue of treating chronically mentally ill young adults relevant. This population is a large and particularly difficult segment of the chronically mentally ill. Because they are the first uninstitutionalized generation, research which defines the theoretical and methodological parameters of treatment of the young adult chronics will have an important impact on current and future program development.

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Appendix A

APPENDIX A

VARIABLE NAME	CODE	QUESTION
ID	___ ___ 1 2	Subject number
AGE	___ ___ 3 4	Age at entry to LINC Program
SEX	___ 5	Sex: 1 Male 2 Female
RACE	___ 6	Race: 1 White 2 Black 3 Other 9 No response
MAR	___ 7	Marital Status: 1 Single 2 Married 3 Divorced 4 Separated 9 No response
DIAG	___ 8	Diagnosis: 1 Schizophrenia 2 Bipolar Disorder 3 Schizoaffective Disorder 4 Other Psychosis ________ 5 Other ________ 9 No response
REFER	___ 9	Source of referral to LINC: 1 Hospital 2 Outreach 3 Other ________ 9 No response
LIVSIT	___ 10	Type of living situation prior to LINC: 1 Hospital 2 Group Home 3 With Family 4 Independent/Alone 5 Independent/With Others 6 Other ________ 9 No response
INC	___ 11	Source of income while in LINC: 1 SSI amount ________ 2 Welfare 3 Employment amount ________ 4 Other ________ 9 No response

Variable	Columns	Description
INPROG	__ __ 12 13	Number of months in LINC Program
HADMPR	__ __ 14 15	Number of hosps in 1 yr prior to LINC
HDAYPR	__ __ __ 16 17 18	Number of hosp days in 1 yr prior to LINC
HADMIN	__ __ 19 20	Number of hosps in 1st yr of LINC
HDAYIN	__ __ __ 21 22 23	Number of hosp days in 1st yr of LINC
HOSPRE	__ __ 24 25	Total number of hosps pre LINC
DAYPRE	__ __ __ 26 27 28	Total number of hosp days pre LINC
HOSPST	__ __ 29 30	Total number of hosps post LINC
DAYPST	__ __ __ 31 32 33	Total number of hosp days post LINC
TOTHOS	__ __ 34 35	Total number of hospitalizations
TOTPRE	__ __ 36 37	Total years hosp Rx pre LINC
TOTPST	__ 38	Total years hosp Rx post LINC
DROP	__ 39	Drop out of LINC: 1 No; 2 Yes; 9 No response

AN ABSTRACT OF THE THESIS OF

JEAN M BAGDANOFF

FOR THE MASTERS OF NURSING

DATE OF RECEIVING THIS DEGREE: June 14, 1985

TITLE: THE CHRONICALLY MENTALLY ILL YOUNG ADULT IN COMMUNITY TREATMENT

APPROVED:

SHIRLEY A MURPHY RN, PhD, Professor THESIS ADVISOR

This is a descriptive study, involving a retrospective audit of mental health service records of 84 chronically mentally ill young adults who participated in a county mental health center's intensive case management program in the two year study period. Recidivism, specifically state hospital utilization, was the dependent variable. Descriptive statistics were used to examine demographic data and outcome variables. A one way analysis of variance compared current clients, drop-outs, and program graduates on the same items. A repeated measures analysis of variance compared hospital histories before, during, and for some clients, after involvement in the program. Level of significance was set at $p < .05$. There was an 80% decrease in state hospital utilization while clients were involved in the LINC program. In the 12 months prior to entering LINC, the group mean was 57 days of inpatient care. In the first

12 months of program involvement, state hospital utilization dropped to a mean of 6 days. Although the decrease in state hospital utilization was significant while clients were involved in the intensive case management program, cause and effect conclusions cannot be drawn due to the non-experimental study design. The nursing implications of this study are clearly addressed by the American Nurses Association Standards of Practice for Mental Health Nursing specialists, and include the need for nurses to demonstrate active participation in the development and maintenance of community mental health programs, and advocate for the young adult chronically mentally ill, who, because of the nature of their disabilities, are unable to make their needs known and obtain appropriate, adequate services.