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by

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Abstract

PSYCHIATRIC PATIENTS' CHARACTERISTICS
AND HOSPITAL READMISSION

by

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Since the introduction of psychotropic medication in the mid 1950's, there has been a rapid decrease in the population of psychiatric patients in state hospitals. There has also been a decrease in the hospital stays, as well as shorter community stays.

This study investigated the relationship between patients' characteristics and the likelihood of remaining in the community. The age at first hospital admission, precipitating factors, social relations, and number of hospitalizations were hypothesized to be directly related to prolonging community stay.

The sample consisted of patients aged 18 to 60 with history of readmission to Manhattan Psychiatric Center between the years 1960-81, and diagnosed as schizophrenic or affective psychosis. The ethnic composition was 48% blacks, 30% hispanics, and 22% white.

The sample was divided into three groups. The Short Community Stay Group (40) consisted of patients who remained

in the community for a period of three months or less; the Intermediate Group (40) were patients who remained in the community for a period of six months and up to one year; and the In Community Group (15) were patients who remained in the community for a period of five years or more.

The Intermediate Group in comparison with the Short Community Stay Group yielded differences in 20 of the 35 variables consistent with the hypotheses. The Short Community Stay Group functioned at a lower level in the clinical, social, and personal variables. In comparing the In Community Group with the Short Community Stay Group, similar differences were yielded. When the In Community and Intermediate Groups were compared, there were fewer differences among the demographic and personal variables. The In Community Group revealed higher levels of functioning among social and clinical variables.

In summary, the Short Community Stay Group exhibited the most deteriorated picture (socially and clinically). Age at first admission and behavior during hospitalizations were important factors in determining community readjustment. The In Community Group had the highest level of social functioning and support networks (friends, family, out-patient clinic) which were contributing factors in remaining in the community for prolonged periods of time.

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INTRODUCTION

Since the 1950's admissions to psychiatric hospitals have steadily increased even though the number of psychiatric patients in state hospitals have decreased since 1955. The decrease in patient population was a function of shorter hospital stays due to the introduction of psychotropic drugs, financial support systems and attitude changes. The readmission rate has increased (Kirk, 1977).

This study undertook the analysis of personal and environmental factors of psychiatric patients to provide some clarification in understanding the rate of success and failure. The study investigated a number of patient characteristics, patient's compliance with treatment, nature of illness, and demographic variables such as the environmental setting (living condition), after care, and the likelihood of remaining in the community.

Historical Perspectives

In 1972 Pinel was appointed physician to the Becêtre in Paris, an asylum often described as an inferno. The mental patients were chained, tortured and stripped of all human attributes (Deutsch, 1964). Pinel unchained many of the patients and they did not exhibit violent or aggressive behavior. It was speculated that their violent behavior

resulted from the oppressive restraints. His moral treatment of the mentally ill was based on kindness and sympathy. It included open wards, pleasant surroundings, structured activities, and a familiar, if not parental relationship between attendant and patient which included joint dining and walks in the countryside. Moral treatment has often been described as the first conscious attempt at milieu therapy. This more human approach was expanded three years later to Salpêtriere, the second largest asylum in Paris, and the results in both institutions, in comparison with previous inhumane methods were far more effective (Deutsch, 1964).

During the 19th century, the widespread method in treating psychiatric illnesses was to provide shelter, food, and rest by the asylum (Arieti, 1974). Treatment ranged from outdoor activities to the development of some productive work. The actual cure and reintegration of the mental patient into society were left to nature. The implicit element in this approach was an assumption that pathogenic components rested in the physical and social environment where the patient lived.

A turning point in the perception of the mentally ill began to take place with the work of Kraepelin (Arieti, 1974) who began to differentiate between depressive disorders and schizophrenia (called dementia praecox). Kraepelin used observation as his method of studying the different psychological conditions. He began to examine the diverse

characteristics of the symptom pictures of depressive patients, schizophrenics, and other patients. After observing thousands of patients Kraepelin found a common ground in one group of patients, a progressive tendency to a state of dementia. He defined this group as dementia praecox. These patients presented symptoms such as hallucinations, delusions, incongrous emotions, stereotyped behavior, impairment of attention and sensorium. He further divided this group of patients into three categories: the paranoid, catatonic and the hebephrenic. One of the drawbacks of Kraepelin's views was his finalistic and fatalistic assumption that these patients would progressively deteriorate until death. He himself began to recognize that some of his conceptions were not correct, since some of his patients made complete recoveries. Also, he never conceived that the schizophrenic might have been influenced by societal environmental forces that impinged on his behavior. Theoreticians such as Meyer, Bleuler and Korsokov challenged, opposed and revitalized Kraepelin's views.

Bleuler (1912) changed the name of the syndrome to schizophrenia. In contrast to Kraepelin's views, he proposed that schizophrenia was a splitting of many psychic functions instead of a degenerative state. He enlarged the concept of schizophrenia to include symptomatic manic-depressive, alcoholic hallucinoses, and psychopathic personalities. He also felt that in a large number of situations schizophrenia is latent and these individuals were not

hospitalized because the symptoms were not severe enough. These symptoms, according to Bleuler, were divided into accessory symptoms, primary and secondary symptoms. Accessory symptoms being the acute manifestation of psychosis, such as delusions, hallucinations, catatonic reactions, and the primary symptoms the necessary aspect of the illness, the association disorder. The secondary symptom was evoked by the action of the primary ones and the psychogenic factors. Bleuler's study of the process of association, autism and ambivalence were cornerstones in the understanding and differentiation of the psychotic process.

Freud (1914) offered alternate ways of conceptualizing the phenomenon. In his paper on narcissism, Freud applied his libido theory and other psychoanalytic concepts to the interpretation of the narcissistic neurosis, the term Freud used in discussing schizophrenia. Unlike the previously mentioned theoreticians, Freud felt that an essential aspect of schizophrenia was the change in the individual's relationship with people and "other objects" in his environment. Such a condition is the result of the libidinal withdrawal from the environment. Most of the symptoms can be viewed as regression of ego functions to a primary process (found in early childhood). Hallucinations and delusions are attempts to reestablish some contact with the world. Consequently, symptoms are often a symbolic representation of important and crucial issues in an individual's life. In his paper, "The Ego and the Id,"

Freud (1923) stated that neurosis is the result of conflicts between the ego and the id, whereas psychosis is a disturbance in the relation between the ego and its environment.

Sullivan (1953) speculated that most conflicts were caused by difficulties in interpersonal relations. Contrary to Freud, Sullivan postulated that one became a person by the fact of relating to other human beings and not as a result of inborn instinctual drives. The personality evolves from the person's relations with others, especially significant others, such as parents. The parent-child relationship is essential, and deficiencies in that relationship (be it by parental anger, anxiety, discomfort) can cause an extremely unpleasant experience in childhood which might interfere with adequate relations between the individual and the environment. Schizophrenia is a disorder of living and not only of intrapsychic conflict which can consist of one episode with complete recovery or a series of episodes throughout an entire life. Since the conflict is one of interrelating, Sullivan felt that schizophrenia could be treated psychotherapeutically where the therapist is a participant helping the individual with his hard struggle in relating to other human beings.

Somatic Treatment

From the biological end of the spectrum, there has been an increasing effort to understand and find possible cures for the afflicting illness based on the belief that it is somatic in nature. Therefore, interventions must have

some organic component. In 1934, Von Meduna introduced convulsive therapy (Metrazol injection) which even fourteen years later was acclaimed as the "most specific and effective treatment (May, 1968) of mental disorder. The basis for the use of convulsive therapy was the erroneous belief that epileptics did not suffer from schizophrenia. Therefore, if schizophrenics were to experience convulsions, the illness would no longer be present. However, as late as the early seventies, there was no conclusive evidence regarding the indications of electroconvulsive treatment in schizophrenia, and there is no adequate formulation as to its curative action.

A major turning point in 1955 was the introduction of the first major psychotropic drug, chlorpromazine which arouse a great deal of interest and led to intensive research and subsequently the introduction of other drugs. The drug's sedative effect and its improvement of the cognitive functions as well as the alleviation of many of the psychotic symptoms led to significant increase in discharge rate from mental institutions. The length of stay in the hospital was substantially reduced. However, the rate of readmission increased tremendously (Kirk, 1977).

Many clinicians attribute the lack of success in remaining in the community to the discontinuation in the intake of drugs once discharged from the hospital (Kirk, 1977). However, Rappaport et. in 1978 conducted a study to assess the contraindication of antipsychotic drugs for

schizophrenics. They assigned at random eighty young males undergoing an acute schizophrenic episode to two groups: one received placebo treatment, the other chlorpromazine while hospitalized and were followed up for a period of three years. The placebo group while in the hospital showed greater long term improvement, less pathology at follow-up, fewer rehospitalizations, and overall better functioning in the community than did patients who were administered chlorpromazine.

Continuity of Aftercare

There is an overriding consensus that follow-up is one of the most important factors in contributing to the patients remaining in the community. Honstra and MacPortland (1963) found a significant relationship between reduced recidivism and continuity of care. The patients that were referred to the outpatient clinic (224) were less likely than those that were not referred (222) to be rehospitalized within a year period.

In another study conducted ten years later, Anthony and Buell (1973), compared those who attended (39) and those that did not attend OPD (40) and found a significant relationship between continuity and reducing the likelihood of rehospitalization within a six month period.

On the other hand, Mayer, Hotz and Rosenblatt (1973), compared 155 attendees to OPD and 81 non-attendees and found that there was no significant difference in the rate of

readmission. Furthermore, they found that those who attended OPD for three or more visits were more likely to rehospitalized than those that made less than three visits.

Some studies have correlated demographic characteristics with acceptance of aftercare. Mayer, Hotz and Rosenblatt (1973) found that OPD attenders were more likely to be older, married, white women; poor attenders included younger, single black males living alone. They also found no difference when ten other demographic characteristics (e.g. education and religion) were compared.

Many of these discrepancies are due to diverse methodologies, treatment settings, varying sample size, and length of follow-up. Kirk (1976) modified his study by increasing the length of follow-up from two to three years. He examined the relationship between attendance at outpatient clinics and rehospitalization. He also looked at the relationship between the number of visits and rehospitalization. Those who attended (139) had a higher rate of rehospitalization than those who did not attend (260). When analyzing the number of visits, he found that the patients who attended from one to ten visits were the most likely to be rehospitalized. However, as the number of visits increased from 11 on, the likelihood of rehospitalization decreased.

Quality of Aftercare

One of the most reliable predictors of recidivism

has been chronicity which has been based on the number of previous hospitalizations, psychotic versus non-psychotic disorders, length of last hospitalization and employment status (Buell and Anthony, 1975). Kirk (1976) examined the level of chronicity and recidivism and found that chronic patients had a higher rate of recidivism. Also, the higher the level of chronicity, the more likely they were to attend the aftercare clinic which might explain the lower rate of rehospitalization among non-attenders. For some chronic patients long term aftercare might be more effective in preventing recidivism. One of the reasons for rehospitalization might be that the attenders are more often institutionalized and identified with the patient role.

McCraine and Mizel's findings (1978) supported Kirk's study in that there was an inverse relationship between number of aftercare visits and the likelihood of rehospitalization. The chronic patients tended to be psychotics and made more visits to aftercare clinics and had reduced recidivism than less chronic (not psychotic) patients. Females and blacks were more likely than males or whites to be diagnosed as psychotic which indicated a higher level of chronicity in these groups. The age factor was important in their findings. Older patients are less likely to drop out of treatment than younger patients, a finding consistent with a study by Balkeland and Liendwall (1975).

Despite popular conception that large psychiatric hospitals are slowly disappearing, the interchange of

patients between such hospitals and communities has been quite pronounced in the last twenty-five years. Since the 1961 Report of the Joint Commission on Mental Health, there has been a thrust towards utilizing community based mental health facilities. Even though these community mental health centers have been designed to provide services for a broad population, including former hospital patients, NIMH reports that only 10% of the patients served by community mental health programs have been previously hospitalized (NIMH, 1973).

With pressure for dehospitalization, a much debated issue has been whether or not the patients receive community services when discharged from the hospital, and the degree of effectiveness of community based services in diminishing the readmission rate. Attendance does not necessarily mean that the patients are receiving the adequate treatment which might account for the wide discrepancy in the findings and the high figures of recidivism. The literature indicates that 50-70% of discharged patients are rehospitalized within a 2-5 year period (Miller, 1973, Gunderson et al., 1974).

Attendance in Outpatient Clinics

The attendance in the outpatient clinics ranged from 57-66% (Mayer, J.E., Hotz, M. and Rosenblatt, A., 1973). However, attendance did not mean that patients received treatment. Only 35% of enrolled patients received any type of treatment (Gunderson et al., 1974).

Kirk (1977) reports on a study conducted in Kentucky State hospitals and provided a breakdown of those who received services as well as other demographic characteristics of the patients in the sample. All the patients that attended the clinic received at least one type of service that could be classified as individual therapy or chemotherapy, 33% received only evaluation or rehabilitational services. Overall, the services tended to be medically oriented, brief, and limited in numbers (average of 4 sessions). Kirk also found the relationship between the number of visits and the patients' characteristics (marital status, race, religion, employment status, education, income, and age) were not significant. However, patients with schizophrenic and neurotic diagnosis were more likely to attend and receive services following discharge from the hospital (over 60% of the sample tested) as opposed to those with personality disorders (less than 35%).

This study indicated that psychotic patients who tend to be at risk for readmission tend to receive more aftercare. On the other hand, patients who were admitted involuntarily (court referral, and two physician certificate) to the hospital did not seek nor receive aftercare.

Variables Related to Post-Hospital Adjustment

The patient's interaction in the post-hospital environment seemed to be one of the key factors in the reintegration into the community. The integration is often

dependent on how well and quickly the individual adjusts to this environment.

Kane and Wolley (1977) reported on the relationship of demographic characteristics (educational background, marital status, occupation) and the patient's past hospitalization adjustment. Housewives attended outpatient clinics more often than other occupational group. Patients with less than a high school education showed a higher rate of readmission and a higher level of unemployment. Semi-skilled workers had a higher probability of being reemployed than professional, managerial or clerical fields. The professional group had the greatest difficulty in readjusting. Such difficulty might be due to the greater emotional disruption in their professional life which might prevent prospective employers from hiring them. Also, the more affluent tend to use private care facilities and not attend state hospitals by choice. As a result, professionals who are hospitalized in a state hospital probably represent a more impaired population than state hospital population from lower level occupational categories.

Community Settings

With the increasing emphasis on dehospitalization, mental hospitals are being forced to discharge patients at a faster rate than they can locate community settings for the patients. Where these patients go when discharged is a crucial issue and one that often determines their adjustment.

They are sent to SRO's, boarding homes, to live with family members when available, and to community based programs. In some instances, these settings (adult homes, and nursing homes) resemble hospital wards transferred to the community. In others, patients are encouraged and motivated to readjust and become functional members of the community. Throughout, an underlying assumption is that the discharged patients have the potential to become functional members of society and should be mainstreamed once they are discharged.

Lamb and Goertzel (1971), measured the effect of high expectation and low expectation environments on discharged patients. They assigned 30 patients to an experimental group or "high expectation group" which involved the patients in a day treatment center, rehabilitation workshop or a half-way house. Mobility, planning, and the acceptance of responsibility were demanded. The comparison group was placed in a "low expectation" environment in the community which involved boarding home, or family care with no effort toward social and vocational rehabilitation required on the part of the patient. Responsibilities were minimal and no effort towards self-sufficiency and independence were made. The high expectation group had a higher rate of readmission. However, they had longer stays in the community with higher level of performance, and as might be expected they were more integrated into the community.

One of the drawbacks of this study was that the patients were randomly assigned to the experimental group.

The placement facilities, the expectations, and the pre-morbid adjustments were not assessed todetermine if the goals of the settings were congruent with the patients' characteristics. Scheff (1966) stated that mental patients enter careers of mental illness by becoming the center of attention of those in authority during crisis situations, and are subsequently rewarded for assuming such a role and punished if they try to abandon it. Consequently, their concept of self is based on society's expectations of their role.

When patients are readmitted to the hospital, the discrepancy between the patient's account and description of events by family members or caretaker is often related to the precipitating causes of rehospitalization. The attitudes, interest, and especially tolerance of the family have been related to the likelihood of the patient remaining in the community. These discrepancies in the patient's perception of his behavior and his family's are due to the patient's sensitivity to the subjective factors of his behavior and the family's focus on its overt manifestation. Seldom is there any preparation of the family or discharge setting regarding the patient's condition and what is expected. Therefore, the discharging hospitals actually maybe colluding in readmitting the patients without awareness. Frequently, it is not the patients' intrapsychic condition that leads to readmission, but the family's or environmental setting's reaction to the patient's behavior.

Deiker and Pryer (1967) examined 80 consecutive chronic psychiatric readmissions and found a discrepancy between the patients' reports of the precipitating causes of readmission and the informants' report. The patients reported their return was due to environmental factors and were not able to identify behaviors that were disruptive to others; the informants on the other hand were sensitive to the patients' "deviant behavior" and its incongruence with traditional social norms.

Premorbid Level of Adjustment

The level of adjustment patients would make in the community is in part dependent on their premorbid level of functioning. Premorbid history has been one of the most important tools in predicting adjustments and recovery. When the crisis or conficts are resolved or have subsided, the individual would return to its previous level of functioning. If such level has not been sufficiently adequate it would be an impossible task for the patient to become functional even when overt symptoms have cleared. It is unrealistic to expect patients to accomplish what they were never able to do prior to becoming chronically ill.

Zigler and Phillips (1960) developed a premorbid social competence scale based on the measurement of six variables (age, intelligence, education, occupation, employment history, and mental status) which are indicative of the person's cognitive, interpersonal, and social functioning. Each individual variable by itself is not a good indicator,

but all the variables combined are more adequate in indicating level of development.

Subsequently, Zigler and Levine (1980) conducted a study to examine what is actually being measured by the Zigler and Phillips scale using patient groups differing in regard to gender and type of hospital. They looked at V.A. hospital males (295), State hospital males (300), and State hospital females (300). It was found that the education index had a smaller role than the other four variables. The weakness of the educational variable proposed by the author, was due to the relative restricted range of education scores (since compulsory education until age 16 is enforced in most states). It is now difficult to find an individual with less than an 8th grade education. They recommended that this variable be rescaled to reflect this change.

Another change they recommended was in the occupational score since some of the highest scores were assigned to positions often held by women (clerical, sales) which inflated the overall competence of women. Women attained a higher premorbid competence scale. The authors felt that this was due to the fact that the scale was related to the fulfillment of societal expectations by individuals. Thus, women tend to be more socialized and able to meet expectations more readily than men. Women are hospitalized at a later stage in their psychiatric condition than men. Women in the past were usually not heads of

households and providers; their illnesses could be more easily tolerated and protected in the home than men's illnesses. Therefore, women may be allowed to remain at home in a "non-functioning" and delusional state for longer periods than men. Overall, this scale proved to be quite reliable and easily scored. It provided a gross measure of maturity level as well as the individual's coping abilities.

Prognosis of the Schizophrenic Patient

The level of post hospital adjustment of the patient is an important factor in successful remission. Although there have been numerous attempts at predicting remission, the variables involved are too complex for accurate prediction (Zigler and Levine, 1981).

Wittman (1944) developed the Elgin Prognostic Scale with which the outcome of discharged schizophrenics was accurately predicted in 83% of the cases examined. A drawback of the study was the limited, one year follow-up period.

Stephen and Astrup (1963) in reviewing admission charts classified patients as "process" (non-remitting) or "non-process" (remitting) schizophrenics. They found that 91% of the chronically hospitalized patients were in the category of "process schizophrenics", which indicated that remission among this group is very unlikely. Even among the "non-process" remission was very low (38%).

Langfelt (1958) conducted a similar study using the classification of "schizophreniform or schizophrenic." He found that 68% of the patients in the schizophreniform"

group had good remission and 90% of schizophrenic patients did poorly and never achieved a remission.

Vaillant (1964) reported that a valid prognostic study or scale must predict on admission the "prognosis of each schizophrenic patient" based on a relatively objective criteria with a 10-30 year follow-up period. Studies conducted in an attempt to approximate Vaillant's proposals indicated that patients who achieved a remission are more difficult to follow-up because they relocate more readily, and patients whose diagnosis was changed away from schizophrenia were more likely to achieve a remission (Vaillant, 1964). The study suggested that prognosis depended on longitudinal factors rather than the symptom picture presented at the time of admission or during hospitalization.

There are multiple factors affecting the patient, either prior or after hospitalizations which act collectively in interfering or enhancing his readjustment. In the event that there are other predisposing conditions, such as, low intelligence, physical or genetic impairment, the patient's adaptability would be most difficult and often impossible. Therefore, this study did not seek to predict, but aid in the understanding of the various factors involved in the post hospital adjustment.

Recidivism

The literature is extensive in examining factors and characteristics believed to be related to recidivism. These

factors include symptoms, multiple hospitalizations and genetic factors (Lamb and Goertzel, 1971).

Other studies have related recidivism to socio-economic status, family and community involvement, consumption of alcohol, ability to maintain a job and manifestation of illness (Franklin and others, 1973). However, little work was done with regard to factors outside the control of the treatment programs and in differentiating those who do not succeed from those who succeed in remaining in the community.

Franklin and others (1973), attempted to differentiate between personal and environmental factors. They examined 52 factors (personal and environmental) and also compared alcohol abusers and non-abusers. Their findings revealed that the readmitted individuals often received income from sources other than employment or employment of someone in the household. The authors stated that earned income rather than employment is the indicator of the degree of dependency or independence. They also found that the re-admitted patients tended to be single, separated or divorced. In both samples (alcoholic and non-alcoholic), the readmitted reported more contacts with community mental health centers after discharge than those that remained in the community. The readmitted spent less time in leisure-time activities (e.g. movies, visiting friends, and sports), drank more and were more likely to report a drinking problem. Their findings indicated that patients with the high rate of

recidivism are afflicted with numerous stressors which resulted from personal and environmental interaction when the hospital was abandoned.

They suggested that these patients are in a "a state of socio-psychological and economic dependency, have poor self image, have poor interpersonal relationships with significant others and lack meaningful social outlets." It was also suggested that these patients tend to be rehospitalized because they find the hospital to be a confortable and familiar environment and often see it as an alternative to the alienation and deprivation they find in the community.

The research that has been conducted examining the specific factors responsible for differences between patients receiving and not receiving aftercare has been limited. Also, in analyzing these differences, if any, and their relationship to rehospitalization, there has been insufficient examination of the environment where the patients are discharged to, and its relationship to the success rate in remaining in the community.

Based upon the findings reported in the literature, this study examined the following variables with regard to their relation to community adjustment, defined in terms of time spent in the community.

1) Type of Admission: Involuntary patients (court referals and two physician certificate) were found to be less likely to adjust in the community after discharge than voluntary patients (included emergency

admissions).

2) Chronicity: Has been associated with consecutive readmissions with short periods of time spent in the community. The study related the greater number of admissions, and the longer duration of illness to the length of time spent in the community. It is hypothesized that the greater the number of admissions and the longer the periods of hospitalization, the shorter the time the patient was able to remain in the community. Also, the nature of admissions (voluntary vs. involuntary), the nature of discharges (medical advice vs. against medical advice) is negatively correlated with adjustment.

3) Behavior During Hospitalization: It is hypothesized that the more aggressive behavior exhibited by the patient during hospitalization, the less involvement of the patient in treatment (rehabilitation programs) and poorer discharge plans, which would lead to shorter community stays. The more cooperative the patient, the longer the community stay.

4) Acceptance or Rejection of Treatment Plans: This variable and the patient's amenability to therapeutic interventions (measured by compliance with medication, psychotherapy, rehabilitation programs) has a direct effect in maintaining a prolonged remission.

5) Discharge Plans: Specific plans for follow-up after discharge is a crucial determinant of community adjustment. The literature indicated that continuity of care is one of the most important factors in maintaining adjustment.

6) Frequency of Contacts with Out-Patient Clinic: The greater the frequency of contacts, the more likely the patient would receive one or more type of service, thus increasing the length of community stay.

7) Family Involvement and History: This variable consisted of three specific aspects of the family life of the patient. The actual composition of the family with whom the patient maintained some contact when discharged. The location of the family was a factor that was explored. It was hypothesized that if the family lived within reach of the patient (N.Y.C. vs. greater distance) there would be contact between the family and the patient. The number of visits during the first two weeks of the current or last hospitalization suggested that the family was concerned and might be positively involved with the patient's adjustment when discharged.

8) Changes in Residence: This factor suggested some degree of stability on the part of the patient or family. Also, the frequency and distance involved in the change of residence might indicate different

socio-economic and cultural patterns that could negatively or positively influence adjustment.

9) Education: The higher the level of education or skill achieved by the patient, the greater the likelihood of readjusting to the community life.

10) Occupational History: The type of occupation, the most recent employment as well as other employments (type of work, length of employment, reasons for leaving, requirements and salary) were factors that provided information regarding premorbid level of functioning. As previously indicated, adequate (consistent employment history) premorbid functioning is positively related to post hospital adjustment.

11) Diagnosis: This variable indicated a degree of chronicity. The more chronic patients (psychotics) have greater difficulty adjusting than the less chronic (non-psychotics).

12) Social Relations: The level and quality of interpersonal relations, in part, determined the type of support network the patient would have in the community which would enable readjustment. Social relations were defined by the number of contacts with friends and relatives the patient had. Also, social activities such as affiliation with religious groups have been reported to have a positive influence in prolonging the stay in the community.

METHOD

Subject

The sample used in this study consisted of patients readmitted to Manhattan Psychiatric Center between the years 1960-1981 with diagnoses of schizophrenia or affective psychosis; organic brain syndrome was excluded. The age range was between 18 and 60; 48% were Black, 30% Hispanic, and 22% White.

The sample was divided into three groups. The Short Community Stay Group (SCS) consisted of 40 patients who were readmitted to the hospital with a prior community stay of three months or less. The Intermediate Group (INT) consisted of 40 patients readmitted within a period of six months to one year. The In Community Group (IC) consisted of 15 patients who remained in the community for a five year period. The reason for the sample size disproportion between the first two groups and the third group was the limited number of patients that successfully remain in the community for a five year period who can be located for follow-up.

The Short Community Stay and the Intermediate groups consisted of half males and half females selected from the in-patient hospital population. The In Community Group consisted of 10 females and 5 males who were attending an

out-patient clinic of the Manhattan Psychiatric Center.

Procedure

The data were gathered through a formal interview with the subjects. The interview assessed the 12 variables previously mentioned. Other demographic information or history was attained through a review of the patient's chart. The interview also sought to clarify any discrepancy in the patient's chart, and obtain other data relevant to the questionnaire that could not be found in his/her record.

In analyzing the data, Mann-Whitney Wilcoxon U Test was used to compare the three groups. Subsequently, a discriminant analysis and Multiple Regressions were used to compare specific significant variables (clinical, social, personal) among the Intermediate and Short Community Stay groups, and the Intermediate and In Community groups. Characteristics of the Intermediate group were analyzed using Multiple Regressions to differentiate cases that had similar characteristics to the In Community and Short Community Stay groups.

RESULTS

In analyzing the data, the three groups (In Community, Intermediate, Short Community Stay) were compared in pairs using the Mann-Whitney U-Wilcoxon Rank Sum W Test.

The comparison of the Intermediate Group with the Short Community Stay Group yielded differences in 25 of the 35 variables at least at .10 level of probability (Tables 1 - 6). When comparing the In Community Group with the Intermediate Group, differences were found in 20 of 35 variables. Also, when the In Community Group was compared with the Short Community Stay Group there were differences in 29 out of 35 variables examined. The frequency of occurrence of each of the 35 variables are presented in Tables 1 - 6. More specific breakdowns of the number of cases and percentages of occurrence among the the three groups are presented in Tables 7 - 15.

Nature of Admission and Diagnosis

The Short Community Stay Group had a higher rate of involuntary admissions (Table 8). The diagnose for the Short Community Stay Group were more likely to be schizophrenic (87.5%). The In Community Group was more likely to have diagnoses of depression (60%) while the Intermediate Group fell in between the other two groups (Tables 4 and 9).

Precipitating Factors

The precipitating factors of the most recent hospitalization were more severe for the Short Community Stay Group than for any of the other two groups (72.7% dangerous, Table 4). The Short Community Stay Group had a higher probability of being discharged against medical advise (75%, Tables 4 and 12); their behavior during the most recent hospitalization was more likely to be aggressive (45%); and they did not accept medication willingly and regularly, nor attended out-patient clinics (Table 3). The Short Community Stay Group did more poorly on the personal and social variables. They were younger at the time of first hospitalization, had a lower level of education, poorer occupational history, no social activity, and changed residence frequently (Table 6). They also had a very limited number of friends and contacts with them (Table 5).

However, when comparing the In Community Group with the Intermediate Group, there were fewer differences among the demographic and personal variables (Tables 1 and 6). The In Community Group did better among social and hospitalization variables (Tables 2 and 5). There was also a tendency for the In Community Group to do better among clinical variables. They tended to be diagnosed more often as affective illnesses (80%, Tables 4 and 9), had more diagnostic change away from schizophrenia (86.7%, Tables 4 and 10), they were also older, and they had a higher

religious practice (46.5%, Tables 6 and 7). However, the Intermediate Group was better educated (Table 6).

Correlational Analysis

Further analysis of the data was conducted to identify the interaction between the clinical, social and personal variables among the three groups. A Multiple Regression was conducted for the Short Community Stay and Intermediate Groups, the results are presented in Tables 16 - 19. The findings further support previous ones. In addition, when clinical, social, and personal variables were jointly compared it was found that the 80 cases were correctly classified 88% of the times, and they correlated with group membership, (R = .774; Table 16).

The clinical variables alone were correctly classified 85% of the times with an R value of .727 (Table 17), showing higher functioning of the Intermediate Group. The personal variables were correctly classified 76% with an R value of .625, and the social variables 75% with an R value of .583 (Tables 18 and 19). Again, they were all in favor of the Intermediate Group.

The In Community Group was compared with the Intermediate Group and the findings were consistent with the previous ones (Table 20). The cases were correctly classified 80% of the times with an R value of .743. The number of admissions was higher as well as the precipitating causes for hospitalization were more severe for

the Intermediate Group. All other variables were also in favor of the In Community Group.

The characteristics of the Intermediate Group were analyzed to identify those cases that might have qualities similar to the In Community and Short Community Stay Groups. Of the 40 cases in the Intermediate Group, 23 were never confused with the Short Community Stay Group, while 17 had similar characteristics at least in one of the group of variables discussed above (Table 21). Of the 23 cases never confused, 9 had similar characteristics to the In Community Group among the same group of variables (Table 21).

In summary, each one of the three groups examined had clinical characteristics and demographic and personal factors which differentiated them.

Table 1

Demographic characteristics: Number of patients in each group, In Community$_1$ (IC), Intermediate (INT), Short Community Stay (SCS), and $\underline{z}^1$ scores differences between groups

VARIABLES	IC	IC $\underline{z}$ vs. INT	INT	INT $\underline{z}$ vs. SCS	SCS	IC $\underline{z}$ vs. SCS
Sex		1.09		0.0		1.09
Male	5		20		20	
Female	10		20		20	
Marital Status		1.53		2.35[b]		3.44[c]
Single	4		22		33	
Other	11		18		7	
Age		2.70[b]		1.40		3.56[c]
30 or under	0		11		17	
Over 30	15		29		23	
Religion		1.35		0.64		.70
Conservative	4		24		21	
Liberal	11		16		19	
Church Attendance		2.70[c]		1.17		3.69[c]
Attendance	7		5		2	
No Attendance	8		35		38	

Table 1 (CONTINUED)

VARIABLES	IC	IC $\frac{z}{vs.}$ INT	INT	INT $\frac{z}{vs.}$ SCS	SCS	IC $\frac{z}{vs.}$ SCS
Ethnic Background		2.16[b]		0.28		2.64[c]
White	2		11		8	
Other	13		29		32	

1 Mann-Whitney U Tests connected for tied ranks and expressed as normal deviates.
a $p<.10$, b $p<.05$, c $p<.01$, d $p<.001$, e $p<.0001$, two-tailed.

Table 2

Characteristics of in hospital type of treatment: Number of patients in each group, In Community (IC), Intermediate (INT), Short Community Stay (SCS), and $\underline{z}^1$ scores differences between groups

VARIABLES	IC	IC $\underline{z}$ vs. INT	INT	INT $\underline{z}$ vs. SCS	SCS	IC $\underline{z}$ vs. SCS
Type of Treatment Received		3.70[c]		2.92[c]		5.37[a]
Medication Only	3		26		37	
Medication and Other	12		14		3	
Acceptance of Medication		1.80[a]		6.16[a]		5.62[a]
Accept	15		40		30	
Not Accept	0		0		10	
Availability of Psychotherapy		1.25		0.12		1.42
Available	4		5		2	
Not Available	11		35		38	

Table 2 (CONTINUED)

VARIABLES	IC	IC $\frac{z}{vs.}$ INT	INT	INT $\frac{z}{vs.}$ SCS	SCS	IC $\frac{z}{vs.}$ SCS
Appointment with Out-patient Clinic		1.86[a]		3.00[c]		3.54[c]
Made	15		32		19	
Not Made	0		8		21	
Place of First Hospitalization		1.20		1.01		1.98[b]
New York State	15		35		34	
Outside of New York State	0		5		6	
Place of Last Hospitalization		1.25		0.37		1.08
New York State	15		38		38	
Outside of New York State	0		2		2	

1 Mann-Whitney U Tests connected for tied ranks and expressed as normal deviates.
a $p<.10$, b $p<.05$, c $p<.01$, d $p<.001$, e $p<.0001$, two-tailed.

Table 3

Characteristics of out-patient clinic contacts: Number of patients in each group, In Community (IC), Intermediate (INT), Short Community Stay (SCS), and $\underline{z}^1$ scores differences between groups

VARIABLES	IC	IC $\underline{z}$ vs. INT	INT	INT $\underline{z}$ vs. SCS	SCS	IC $\underline{z}$ vs. SCS
Accompanied to		1.08		1.02		0.61
Clinic	0		3		1	
Not Accompanied	15		37		39	
Arrived to		1.99[b]		5.11[e]		5.31[e]
Clinic	15		31		8	
Not Arrived	0		9		32	
Frequency of Contact with Clinic		5.18[e]		4.86[d]		6.29[e]
Attendance	15		30		8	
No Attendance	0		10		32	
Nature of Contact with Clinic		4.43[d]		3.71[c]		6.92[e]
Service	14		12		0	
No Service	1		28		40	

1 Mann-Whitney U Tests connected for tied ranks and expressed as normal deviates.
a $p<.10$, b $p<.05$, c $p<.01$, d $p<.001$, e $p<.0001$, two-tailed.

Table 4

Clinical characteristics: Number of patients in each group, In Community$_1$ (IC), Intermediate (INT), Short Community Stay (SCS), and $\underline{z}$ scores differences between groups

VARIABLES	IC	IC $\underline{z}$ vs. INT	INT	INT $\underline{z}$ vs. SCS	SCS	IC $\underline{z}$ vs. SCS
Hospitalizations		2.61[c]		4.17[e]		5.02[e]
5 or under	14		24		9	
Over 5	1		16		31	
Type of Admission		2.24[b]		2.89[c]		5.22[e]
Voluntary	15		21		7	
Involuntary	0		19		33	
Pattern of Recidivism		1.52		0.40		3.80[c]
No Change	5		7		16	
Change	10		33		24	
Diagnosis		1.69[a]		2.99[c]		3.68[c]
Schizophrenia	3		26		35	
Other	12		14		5	
Diagnosis Change		2.75[c]		2.37[b]		4.49[d]
No Change	2		22		32	
Change	13		18		8	

Table 4 (CONTINUED)

VARIABLES	IC	IC $\frac{z}{vs.}$ INT	INT	INT $\frac{z}{vs.}$ SCS	SCS	IC $\frac{z}{vs.}$ SCS
Time Between Current and prior hospitalization		5.73[e]		7.71[e]		5.63[e]
Under 24 weeks	0		0		40	
Over 24 weeks	15		40		0	
Discharge Basis		1.70[a]		5.50[e]		4.93[e]
Against Medical Advise	0		3		30	
Medical Advise	15		37		10	
Behavior During Most Recent Hospitalization		1.94[a]		4.34[d]		4.67[d]
Aggressive	0		5		18	
Non-Aggressive	15		35		22	
Precipitants of Most Recent Hospitalization		.72		4.35[d]		2.70[c]
Dangerous	6		8		29	
Non-Dangerous	9		32		11	

1 Mann-Whitney U Tests connected for tied ranks and expressed as normal deviates.
a $p<.10$, b $p<.05$, c $p<.01$, d $p<.001$, e $p<.0001$, two-tailed.

Table 5

Social characteristics: Number of patients in each group, In Community$_1$ (IC), Intermediate (INT), Short Community Stay (SCS), and $\underline{z}$ scores differences between groups

VARIABLES	IC	IC $\frac{z}{vs.}$ INT	INT	INT $\frac{z}{vs.}$ SCS	SCS	IC $\frac{z}{vs.}$ SCS
Friends		3.71[c]		3.86[c]		5.23[e]
None	0		9		26	
Some	15		31		14	
Contact with Friends		1.69[a]		4.19[d]		4.64[d]
None	0		8		26	
Some	15		32		14	
Contact with Family		0.54		2.73[c]		2.56[b]
None	0		4		14	
Some	15		36		26	
Family Visit		1.29		4.23[d]		3.35[c]
None	6		21		38	
Some	9		19		2	

Table 5 (CONTINUED)

VARIABLES	IC	IC $\frac{z}{vs.}$ INT	INT	INT $\frac{z}{vs.}$ SCS	SCS	IC $\frac{z}{vs.}$ SCS
Family Availability		0.59		3.18^{c}		2.76^{c}
Not Available	2		8		21	
Available	13		32		19	

1 Mann-Whitney U Tests connected for tied ranks and expressed as normal deviates.
a $p<.10$, b $p<.05$, c $p<.01$, d $p<.001$, e $p<.0001$, two-tailed

Table 6

Personal characteristics: Number of patients in each group, In Community$_1$ (IC), Intermediate (INT), Short Community Stay (SCS), and $\underline{z}$ scores differences between groups

VARIABLES	IC	IC $\underline{z}$ vs. INT	INT	INT $\underline{z}$ vs. SCS	SCS	IC $\underline{z}$ vs. SCS
Age at 1st Admission		3.46[c]		2.43[b]		4.36[d]
30 and under	4		30		35	
Over 30	11		10		5	
Education		-2.00[b]		3.34[c]		0.47
8th grade or less	6		6		15	
More than 8th grade	9		34		25	
Occupation		0.78		4.44[d]		2.69[c]
None	6		12		30	
Some	9		28		10	
Social Activity		0.94		3.83[c]		4.22[d]
None	6		22		37	
Some	9		18		3	

Table 6 (CONTINUED)

VARIABLES	IC	IC $\frac{z}{vs.}$ INT	INT	INT $\frac{z}{vs.}$ SCS	SCS	IC $\frac{z}{vs.}$ SCS
Change in Residence in last 2 years		0.76		3.49^{c}		3.28^{c}
Often	4		14		28	
Not Often	11		26		12	

1 Mann-Whitney U Tests connected for tied ranks and expressed as normal deviates.
a $p<.10$, b $p<.05$, c $p<.01$, d $p<.001$, e $p<.0001$, two-tailed.

Table 7

Number of cases and percentages in each group and church attendance

	In Community	Intermediate	Short Community Stay
No Attendance	8 53.3%	35 87.5%	38 95.0%
Attendance	7 46.5%	5 12.5%	2 5.0%

Table 8

Number of cases and percentages in each group and the nature of admission of most recent hospitalization

Categories	In Community	Intermediate	Short Community Stay
Involuntary	0 0.0	18 45.0%	28 70.0%
Involuntary Emergency	0 0.0	1 2.5%	5 12.5%
Voluntary	15 100.0%	16 40.0%	7 17.5%
Voluntary Emergency	0 0.0	5 12.5%	0 0.0

Table 9

Number of cases and percentages in each group and the diagnostic categories during most recent hospitalization

Categories	In Community	Intermediate	Short Community Stay
Paranoid Schizophrenia	2 13.3%	7 17.5%	15 37.5%
Chronic-Undiff. Schizophrenia	1 6.7%	14 35.0%	19 47.5%
Disorganized Schizophrenia	0 0.0	2 5.0%	1 2.5%
Bipolar Disorder	0 0.0	3 7.5%	0 0.0
Schizo-Affective Disorder	1 6.7%	2 5.0%	2 5.0%
Depression Single Episode	5 33.3%	0 0.0	0 0.0

Table 9 (CONTINUED)

Categories	In Community	Intermediate	Short Community Stay
Depression Recurrent	4 26.7%	6 15.0%	0 0.0
Other Psychotic Disorder	1 6.7%	5 12.5%	3 7.5%
Other Non-Psychotic Disorder	1 6.7%	1 2.5%	0 0.0

Table 10

Number of cases and percentages in each group and the change in diagnosis at any time during hospitalization

	In Community	Intermediate	Short Community Stay
No Change	2 13.3%	22 55.0%	32 80.0%
Change	13 86.7%	18 45.0%	8 20.0%

Table 11

Number of cases and percentages in each group and the number of friends

Categories	In Community	Intermediate	Short Community Stay
None	0 0.0	9 22.5%	26 65.0%
1 Only	1 6.7%	12 30.0%	8 20.0%
2-5 Friends	8 53.3%	17 45.5%	5 12.5%
6 and More Friends	6 40.0%	2 5.0%	1 2.5%

Table 12

Number of cases and percentages in each group and the basis for discharge during the most recent hospitalization

Categories	In Community	Intermediate	Short Community Stay
Leave Without Consent	0 0.0	3 7.5%	25 62.5%
Against Medical Advise	0 0.0	0 0.0	5 12.5%
Medical Advise With Conditions	5 33.3%	20 50.0%	6 15.0%
Medical Advise Without Conditions	10 66.7%	17 42.5%	4 10.0%

Table 13

Number of cases and percentages in each group and the treatment received during most recent hospitalization

Categories	In Community	Intermediate	Short Community Stay
Medication	3 20.0%	26 65.0%	37 92.5%
Recreation	1 6.7%	4 10.0%	1 2.5%
Rehabilitation	0 0.0	1 2.5%	0 0.0
Medication, Rehabilitation	5 33.3%	8 20.0%	1 2.5%
Medication, Recreation, Rehabilitation	6 40.0%	1 2.5%	1 2.5%

Table 14

Number of cases and percentages in each group and the acceptance of medication during most recent hospitalization

Categories	In Community	Intermediate	Short Community Stay
No	0 0.0	0 0.0	10 25.0%
Sporadic	1 6.7%	12 30.0%	28 70.0%
Yes	14 93.3%	28 70.0%	2 5.0%

Table 15

Number of cases and percentages in each group and marital status

Categories	In Community	Intermediate	Short Community Stay
Single	4 26.7%	22 55.0%	33 82.5%
Divorced - Separated	9 60.0%	12 30.0%	2 5.0%
Widow	0 0.0	2 5.0%	3 7.5%
Married	1 6.7%	4 10.0%	2 5.0%
Divorced, Remarried, Widow	1 6.7%	0 0.0	0 0.0

Table 16

Multiple prediction of recidivist group membership from clinical, social and personal variables[1], Short Community Stay group vs. Intermediate group

VARIABLES	BETA	PERCENTAGE OF VARIANCE	PERCENTAGE OF EXPLAINED VARIANCE
Discharge Basis	.505[c]	25.7	43.0
Contact With Friends	.333[c]	17.0	28.3
Activity Level	.191[b]	9.8	16.3
Diagnosis Change	.146[a]	7.4	12.4
Total	$\underline{R}$ = .774	59.9	100.0

1 88% correct classifications

a $\underline{p}<.05$, b $\underline{p}<.01$, c $\underline{p}<.001$, one-tailed

Table 17

Multiple prediction of recidivist group membership from clinical variables[1], Short Community Stay group vs. Intermediate group

VARIABLES	BETA	PERCENTAGE OF VARIANCE	PERCENTAGE OF EXPLAINED VARIANCE
Discharge Basis	.474[c]	24.0	45.3
Behavior Before	.266[b]	13.4	25.4
Nature of Most Recent Admission	.164[a]	8.3	15.6
Pattern of Recidivism	.143[a]	7.2	13.7
Total	$\underline{R}$ = .727	52.9	100.0

1 85% correct classifications

a $\underline{p} < .05$, b $\underline{p} < .01$, c $\underline{p} < .001$, one-tailed

Table 18

Multiple prediction of recidivist group membership from personal variables[1], Short Community Stay group vs. Intermediate group

VARIABLES	BETA	PERCENTAGE OF VARIANCE	PERCENTAGE OF EXPLAINED VARIANCE
Occupation	.264[b]	11.4	29.1
Moves Between	.231[b]	10.0	25.5
Activity	.232[b]	10.0	25.6
Education	.179[a]	7.7	19.8
Total	$\underline{R}$ = .625	39.1	100.0

1 76% correct classification

a $\underline{p}<.05$, b $\underline{p}<.01$, one-tailed

Table 19

Multiple prediction of recidivist group membership from social variables[1], Short Community Stay group vs. Intermediate group

VARIABLES	BETA	PERCENTAGE VARIANCE	PERCENTAGE OF EXPLAINED VARIANCE
Contact With Friends	.344[b]	15.1	44.4
Family Visits	.231[b]	10.1	29.8
Family Availability	.200[a]	8.8	25.8
Total	$\underline{R}$ = .583	34.0	100.0

1 75% correct classifications

a $\underline{p}<.05$, b $\underline{p}<.01$, one-tailed

Table 20

Discrimination of clinical, social, personal variables[1] among the In Community group from Intermediate group

VARIABLES	BETA	PERCENTAGE OF VARIANCE	PERCENTAGE OF EXPLAINED VARIANCE
Admission Number	.446[b]	15.2	27.5
Diagnosis Change	- .371[b]	12.6	22.8
Present Age	- .332[a]	11.3	20.4
Friends	- .248[a]	8.4	15.3
Precipitant	.227[a]	7.7	14.0
Total	$\underline{R}$ = .743	55.2	100.0

1 80% correct classifications

a $\underline{p}<.05$, b $\underline{p}<.01$, one-tailed

Table 21

Number of cases within each sub-group of the Intermediate group, classified according to similarity to In Community (AIC), Intermediate (TI), and Short Community Stay (ASCS), and $\underline{z}$[1] scores differences between groups

VARIABLES	AIC	TI	ASCS	$\underline{z}$ AIC and TI vs. ASCS
Age at 1st Admission				2.55[b]
Under 30	4	10	16	
Over 30	5	4	1	
Occupation				2.21[b]
None	2	1	9	
Some	7	13	8	
Friends				2.38[b]
None	0	1	8	
Some	9	13	9	
Contact with Friends				3.63[d]
None	0	1	7	
Some	9	13	10	

Table 21 (CONTINUED)

VARIABLES	AIC	TI	ASCS	$\underline{z}$ AIC and TI vs. ASCS
Social Activity				2.49[b]
None	5	3	14	
Some	4	11	3	
Family Visit				2.93[c]
None	4	4	13	
Some	5	10	4	
Behavior During Most Recent Hospitalization				2.94[c]
Aggressive	0	2	3	
Non-Aggressive	9	12	14	

1 Mann-Whitney U Tests connected for tied ranks and expressed as normal deviates.

a $\underline{p}<.10$, b $\underline{p}<.05$, c $\underline{p}<.01$, d $\underline{p}<.001$, two-tailed

DISCUSSION

In Community vs. Short Community Stay Group

Except for demographic variables the characteristics which differentiated the In Community and the Short Community Stay Group were marked. The hypotheses and expected differences were confirmed. The findings suggested a very low level of development or a social and clinical deterioration among patients who could not remain out of the hospital for more than brief periods of time.

The Short Community Stay patients' characteristics were consistent with Kraepelin's description of dementia praecox (Arieti, 1975). The disorder exhibited its first onset during adolescent or early adulthood years, whereas affective illnesses develop later in life. These patients were diagnosed as schizophrenics, hospitalized early in life and were socially isolated. These indicators, given the low level of adjustment achieved during the premorbid stage, suggested a low level of social attainment prior to the first psychotic episode.

In contrast, the In Community Group, established a higher degree of adequate social functioning prior to the onset of the illness. They were able to return or approximate their good premorbid level of functioning upon the remission of the illness. In addition, they tended to have a support network (family, friends, out-patient clinics), which contributed to strengthen and maintain the

remission period. In view of their higher level of interpersonal relations, this group was able to elicit support from others, and related more effectively to hospital staff during the most recent hospitalization. On the other hand, the Short Community Stay Group may have provoked anger and rejection in hospital staff and others.

The capacity of being well liked by staff among the In Community Group resulted in part because of greater compliance. Consequently, the treatment received and the discharge plans made during the most recent hospitalization were more comprehensive.

Education, contrary to the overall higher social attainment, was lower. This was partly a factor of age and a different environment in which they were raised. In addition, the Short Community Stay Group was younger which suggested that compulsory educational laws were largely responsible for higher educational grade. The In Community Group was mostly from a rural environment and from underdeveloped countries, suggesting that education was not required nor as available as it is today.

Intermediate vs. Short Community Stay Group

The Intermediate Group when compared with the Short Community Stay Group yielded similar differences. However, the Intermediate Group was better educated than the Short Community Stay Group which is not necessarily a function of age and the environment (geographical location) where they

were raised since both groups had similar backgrounds. The difference in education might also be reflective of a better social adjustment for the Intermediate Group.

Short Community Stay Group vs. other two groups

The Short Community Stay Group was distinctly different from the Intermediate and In Community Groups in their behavior both within the hospital and in the community. The Short Community Stay group while in the community did not use out-patient services, had dangerous precipitating causes for hospitalizations, and were admitted involuntarily. While hospitalized they exhibited dangerous behavior, left against medical advise, and often did not comply with treatment. These differences suggested that the Short Community Stay Group caused more problems in the community, and were also troublemakers when hospitalized. The Short Community Stay Group might be better served from long term hospitalizations in order to provide them with a safe, non-threatening therapeutic environment, as well as protect society. However, the hospital staff may not be displeased when patients who are management problems leave the hospital against medical advice.

With longer hospitalizations society would also benefit by using the available resources for the Intermediate and In Community Groups who did adjust and remained in the community for longer periods of time. Funds, which are so desperately needed for community care of psychiatric patients, could be more appropiately used on individuals that have an

opportunity to remain in the community other than the Short Community Stay Group. Thus, the wasted expenses involved in the readmitting process (medical, laboratory procedures, psychiatric assessments), and discharge process (housing, welfare, and social security funds) would be reduced. These funds could be better invested in community mental health clinics, rehabilitation programs (occupational, social, emotional) and preventive services for the In Community and Intermediate Groups who have a more adequate premorbid level of functioning to return to once the illness has remitted. Decisions regarding which patients to hold for longer hospitalizations and which ones to discharge can be made with a high degree of accuracy (88% correctly classified).

In Community vs. Intermediate Group

There were fewer differences among the In Community and Intermediate Groups. The differences among the social variables of the In Community Group were partly a function of premorbid level of functioning which is better for this group. The marked difference in the religious practice suggested that the affiliation with and support provided by religious institutions were contributing factors in maintaining this group out of the hospital for prolonged periods of time. The personality characteristics of religious patients were different from non-religious patients, and these characteristics also contributed to staying out of the hospital.

Religious institutions can have similar qualities to a hospital institution. There are clearcut guidelines provided by religion; dependence on authority is fostered which reduces anxiety and ambivalence on the part of the individual when making a decision. Much of the responsibility accompanying a decision (autonomy) is removed from the individual and assumed by the institution.

In this study, the family involvement was unrelated to readmission, which was different from the findings of Deiker and Pryer (1967). They reported that close family contact contributed to rapid readmission, and it was largely due to the poor tolerance on the part of the family, and lack of understanding of the individual's illness.

Recommendations for Short Community Stay Group

Further analysis of the data supported the picture of the Short Community Stay as more deteriorated or having a low level of development and it implication for adjustment in the community. Patients in this group probably would benefit from long term hospitalization. However, they were not compliant enough to remain in the hospital and they often escaped, suggesting that alternate methods of treatment have to be explored. Schooler and Spohn (1982) in reviewing their resocialization experimental ward for chronic schizophrenics found that when demands for socialization and activities were incorporated and expected of the patients, there was a deterioration of psychological functioning of the patients, especially among the more chronic

ones. The intensity of a socially oriented therapeutic environment evidently had negative effects on the patients. Their claim is further supported by the literature (Schooler and Spohn, 1982), suggesting that schizophrenics would avoid social interaction if possible or deteriorate when such interaction is increased.

Therefore, any alternate method of treatment for the Short Community Stay Group should not be demanding (socially) and recognize the social isolation among this group as a defensive part of the illness and accept it. The negative rights of the patient is to be left alone while meeting their needs, such as shelter, food and clothing. A possible alternative is to return to the long term, closed ward hospitalization and not emphasize deinstitutionalization for this group.

Recommendations for the Intermediate Group

The findings among the Intermediate Group have helped in identifying specific characteristics of this group that might contribute or hinder total reintegration in the community.

Demographic variables did not differentiate between the In Community, Intermediate, and Short Community Stay Groups. However, clinical, social, and personal variables did. Patients who are identified as Intermediate would benefit from a socially, stimulating community oriented hospital. If the scarse funds were to be used for a limited number of patients who are likely to adjust in the community,

an ideal program would be one that is physically located in the community, has an open door policy, and is staffed with indigenous members of the community who are sensitive to the illness. It should also attempt to incorporate the patient's family, religious institutions and make use of other community resources.

Further research in the assessment of patients in the Intermediate Group and with characteristics similar to the Short Community Stay Group is recommended in order to provide such patients with protection and custodial care. Thus, reducing the cost of hospitalization and the readmission rate seen in the Short Community Stay Group. If the group of variables found to be significant in the process of community adjustment are further explored, and in future research refined into a practical instrument, such as an initial assessment form, it is possible to improve the quality and quantity of psychiatric care delivered to individual patients. Clearly, it would distinguish patients and provide more knowledge to the treatment team about them. Consequently, more adequate treatment plans and discharge plans could be devised, thus, reducing the rate of rehospitalization.

Recommendations

The In Community Group had the suport network needed to succeed in the community which was strengthened by the involvement with out-patient clinics. Hence, it is suggested that such involvement be maintained and examine which aspects

are most effective. This study did not include an In Community Group that did not make use of the out-patient clinic. In future research it would be desirable to try to locate such an In Community Group and determine their characteristics.

Replication of this study with additional out-patient clinics with larger and more diverse (ethnically and socially) patient population are needed to provide a broader understanding of patients' adjustment and success in remaining in the community. All three groups should be followed-up to further assess the factors that contribute to success in remaining in the community, particularly, which members of the Intermediate or Short Community Groups changed group membership.

In summary, this study has provided further understanding into the characteristics (clinical, personal, social, and demographic) of psychiatric patients and its relationship to successfully remaining in the community for prolonged periods of time. It has also provided some information and suggestions for future research in this area.

APPENDIX

APPENDIX A

Proposal and consent forms submitted to Manhattan Psychiatric Center Research Committee granting permission to conduct study.

MANHATTAN PSYCHIATRIC CENTER
REQUEST TO THE INSTITUTIONAL REVIEW COMMITTEE
FOR REVIEW OF A PROPOSAL INVOLVING AN EXPERIMENTAL
DRUG OR TREATMENT PROCEDURE

In accordance with applicable policies of the Department of Mental Hygiene, the Department of Health, Education and Welfare, and the Food and Drug Administration, you are requested to review the following proposal involving an experimental drug or treatment procedure to insure that (a) the rights and welfare of the subjects are adequately protected, (b) that the risks to participants are outweighted by the potential benefits to them or by the importance of the knowledge to be gained, and (c) that informed consent is to be obtained by methods that are adequate and appropriate. You are further requested to provide continuing review of this project, if approved, in accordance with the above policies.

A. Applicant(s):

1. Aim of procedure: To assess patients' characteristics (demographic, attitude toward treatment, symptom picture) and hospital readmission.

2. Material to be used: Individual interview with patient to assess attendance to OPD, family involvement in treatment while hospitalized and when discharged, attitude towards psychiatric treatment (medication, psychotherapy). A review of hospital charts to attain demographic data.

3. Benefits of the research in general: Will provide further understanding of patients' characteristics that will be more likely to succeed in living in the community without readmission to the hospital. Thus help pre-identify patients in order to make adequate discharge.

4. Potential benefits to participants: If any significant factors are found (eg - nature of family interaction) a training regimen might be established to foster a healthier interaction between patients and significant others.

5. Potential risks to participants: No risk is involved.

6. Benefits the hospital will derive from the research: The hospital will be acknowledged as a sponsoring hospital in any presentation, or publication of this research. The hospital will be provided with direct feedback of the findings. This will be helpful in identifying patients with

possible potential to succeed in living in the community, thus reducing readmission rate.

7. Possible disruptive effects of the research project on hospital operations: There will be no disruption on hospital operations. No equipment time, space or financial resources will be required of the hospital.

8. Process to be used in obtaining informed consent from participants: Participants will be informed verbally and in writing (Spanish and English) of their participation in the study.

9. Procedure for dealing with any potentially harmful effects that may occur in the course of the research activities: No harmful effects are anticipated in the course of the study. The questions posed to the participants will not be intrusive, disruptive or interfere with the course of the treatment.

10. Protocol No. and Title: No protocol will be used in the study.

I/we agree that periodic written status progress reports will be submitted to this Committee and that the final report (including publication copy, where applicable) will be submitted to this hospital in writing. Supporting documents and information are enclosed.

Date _____ Print Name of Investigator(s) _____ Signature _____

Print Name _____ Signature _____

Print Name _____ Signature _____

B. Institutional Review Committee:

1. Adequacy of research design _____

2. Adequacy of qualifications of the individuals responsible for coordinating the project _____

3. Compliance of the research design with accepted ethical standards _____

4. Action
   Approved_____ Disapproved_____

Restrictions or comments:_____

_____

_____

_____ _____
Date Chairperson of Committee

C. Director of the Facility

   Approved_____ Disapproved_____

_____ _____
Date Director

Revised 12/10/80

Consentimiento para participar en un estudio investigador

Se me ha pedido que participe en un estudio titulado "Caracteristicas de Pacientes Psiquiatricos y su Relacion a Readmision."

Todo lo que se requiere de mi es una entrevista en la cual se me haran preguntas relacionadas con mi corriente y pasada hospitalizaciones al igual que planes anteriores para darme de alta, y mi asistencia a la clinica en la comunidad.

No habra ningun riesgo en este estudio. Mi participacion en este estudio no afectara de ninguna manera mi tratamiento en el hospital.

Puedo reusar de contestar preguntas o abandonar este estudio en cualquier discusion, presentacion, o publicacion del projecto.

He leido y enteramente entendido lo propuesto. Cualquier pregunta que pueda tener en el futuro sobre este estudio la puedo dirigir al Sr. Oliver Crespo, telefono (212) 569-7727.

Fecha_____ Firma_____

Testigo_____

Testigo_____

Consent to Participate In A Research Study

I have been asked to take part in a research study entitled, "Psychiatric Patients' Characteristics and Hospital Readmission."

All that is required of me is an interview. Questions regarding the nature of my present and previous hospitalizations will be asked, as well as previous discharge plans and my attendance to the outpatient clinic.

No risk is anticipated in this project. My participation in this project will not influence my treatment in the hospital in any way.

I may refuse to answer questions or withdraw from the study at any time and it will not affect my treatment.

My participation in this project is strictly confidential and anonymous in any discussion, presentation or publication of this study.

I read and fully understood all of the above. Any questions I may have in the future regarding this project I may contact Mr. Oliver Crespo at (212) 569-7727.

Date_____ Signature_____

Witness_____

Witness_____

APPENDIX B

Sample of questionnaire used to gather data

SAMPLE QUESTIONNAIRE

Patient's Name _____ Religion _____
Date of Birth _____ Marital Status _____
Place of Birth _____ Ethnicity _____
Sex (M) (F) _____ Date of Admission _____
Address (Home) _____ Nature of Admission _____
Addr Sex (M) (F) _____ Hospital ID# _____
Tele Address (Home) _____ (Job) _____ Ward Service _____
Address (Work)

1. Nature of Admission (Voluntary, Involuntary, hospitalizations #1.....)

2. Previous Hospitalization

   A) Date of Admission (#1, #2, ...#10)

   B) Nature of Admissions (#1, #2, ...#10)

   C) Date of discharge from admissions (1, #2....#10)

   D) Naure of discharge from admissions (#1, #2....#10)

3. Behavior in hospital during previous and present hospitalization

   A) Dangerous or potentially dangerous (physically) (hospitalization #1....#....)

   B) Aggressive, assaultive, hostile (verbal) hospitalization #1....#....)

   C) Withdrawn, non-cooperative with MHTA, professionals hospitalization #1....#....)

   D) Quiet, cooperative (takes medication), accepts treatment plan (hospitalization #1....#....)

   E) Cooperative, articulate, participates on ward activities, accepts treatment plan (hospitalization #1....#....)

   F) Liked by staff (MHTA's and Professionals), helps on ward by maintaining personal hygiene, keeps his/her area clean.

4. Attitude towards treatment: Inpatient (IPS), outpatient (OPS) during hospitalizations (#1.....)

   A) Medication

      1. takes it regularly
      2. takes it irregularly
      3. does not take it (conceals it)
      4. refuses it and later accepts it
      5. refuses and court order needed
      6. refuses and never takes it

   B) Psychotherapy

   C) Rehabilitation Programs

      1. Educational
      2. Transitional employment
      3. Recreational

5. Discharge Plans (during hospitalizations #1....)

   A) Appointment made with OPD for

      1. 24 hours after discharge
      2. 48 hours after discharge
      3. 72 hours after discharge
      4. 1 week or more after discharge

   B) Patient accompanied to OPD by staff

   C) Patient accompanied to OPD by family or other

6. Frequency of contacts with OPD (when discharged from hospitalizations #1....)

7. Family Involvement and History

   A) Composition (ages, relationship)
   B) Location of family (NYC vs. greater distance)
   C) Number of visits during first two weeks of present or last hospitalization

8. Changes in residence (relocation from place of birth)

   A) Patient
   B) Family

9. Education

   A) Grade completed (dates and location)

   B) Vocational training (dates and location)

10. Occupational History

   A) Occupation

   B) Most recent employment (starting and termination dates, place, reasons for leaving, qualifications, duties, salary)

   C) Other employments (starting and termination dates, place, reasons for leaving, qualifications, duties, salaries)

   D) Unemployment (length, source of income)

11. Diagnosis (Hospitalization #1.....)

12. Social Relations

   A) # of friends

   B) # of contacts per week with friends or relatives

   C) Social Activities

APPENDIX C

Description of scoring system

In gathering the data, for all the variables examined, the hospitalizations that were considered were the first, the last (N) and next to the last (N-1), and most recent hospitalization for the non-recidivist group. The demographic variables were coded in the following manner:

1) Group - This referred to which group the patient belongs to. One non-recidivism group (N-15) which remained in the community for five years or more. Two, the long term group (N-40) composed of patients who remained in the community for six months or more up to one year. Three, the short term group (N-40) with a stay in the community of three months or less.

2) Sex was coded (1) for male, (2) for female.

3) Religion was divided into five categories. (1) Fundamentalist, which was defined as members of the "reborn christians" and whose beliefs were rigidly enforced, limiting their behavior in the community. This group included Pentacostals, Seventh Day Adventists, and Jehova Witness. The second category (2) was conservative. This group was composed mainly of Baptists. The third (3) group was liberal which were all catholic. Agnostic (4) was the fourth group and they included those patients who acknowledged not having a religion ("none"). The fifth group was Jewish. This information was obtained based on what the patient considered to be his religion. The other factor taken into consideration with regard to religion was the extent of practice. One for no practice and (2) for

practice, which was based on their attendance to church, or other religious activity.

4) Ethnicity was divided into four categories (1) Black, (2) Hispanic, (3) White, (4) Oriental.

5) Education was scored based on school grade completed (1-16), and the score of 30 was added to the school grade for those with vocational training.

6) The nature of the most recent admission was coded as follows: (1) Involuntary, (2) Involuntary on Emergency basis, (3) Voluntary, (4) Voluntary on Emergency basis.

7) Diagnosis was divided into nine categories. Also, diagnostic changes were taken into consideration. (1) no change, (2) change. The categories were as follows: (1) Paranoid schizophrenia, (2) Chronic Undifferentiated schizophrenia, (3) Disorganized schizophrenia, (4) Bipolar disorder (Manic-Depressive), (5) Schizoaffective, (6) Major depression, (8) Other psychotic episode (drug related and alcohol), (9) Other non-psychotic (adjustment reaction disorder, anxiety disorders, and depressive neuroses).

8) Occupational history was obtained from patient's statements and other evidence (family, charts, and employer). The codes were as follows: (1) none, (2) irregular odd jobs, (3) regular odd jobs (consecutive, specific employment), (5) skilled jobs (included professionals, and employment requiring skill or special training).

9) The social activities were measured based on

friends, which was coded as follows: (1) no friend, (2) 1 friend, (3) 2-5 friends, (4) more than 5 friends. The extent of the friendship was measured as contacts with friends, (0) no contact (1) more than one month, (2) once a month, (3) every other week, (4) one or more per week. Activities such as going to see a movie, dining out, visit friends or relatives, sports, hobbies and church related activities were coded as (1) none, (2) some (once a week to once a month), (3) many (more than once a week).

10) Family contacts were scored as (0) none, (1) more than 6 months, (2) more than one month, (3) once a month, (4) every other week, (5) one or more per week.

11) The time between the present (N) and most recent hospitalization (N-1) was measured in terms of weeks and scored as such.

12) The nature of the discharge N-1 hospitalization was coded as, (1) leave without consent, (2) against medical advice, (3) medical advice with conditions (continue care, training, or other treatment), (4) medical advice without condition. Also, the discharge plans made by the hospital was based on: (1) appointment with out-patient clinic made, (2) appointment not made. Arrival at the out-patient clinic was scored as: (1) accompanied by staff or relative, (2) Not accompanied. The actual arrival was (1) No, (2) Yes. The actual arrival to the out-patient clinic, the frequency of contact, and the nature of contacts was taken into consideration. This information was obtained through the

patient's charts, family, patient himself, and in some instances, the out-patient clinic. For those patients that continued care, the score was as follows: (1) none, (2) once every 3 months, (3) once a month, (4) once a week, (5) more than once a week.

13) The nature of the contact with the out-patient clinic was measured. All patients attending the clinic received medication. Therefore, patients who only received medication were scored (0), (1) attendance to day program, (2) counseling (by social worker, psychiatrist, or recreational therapist), (3) rehabilitational programs (OVR, manpower), (4) psychotherapy, individual or group (by psychologist, psychiatrist or social worker). In the event of a combination of services received, the sum of the score of these services was the score.

14) The stability in residence was scored based on the number of changes in residence in the last two years, (1) moved 5-20 times, (2) 3-4, (3) 2 or less.

15) Family availability was based on the family's physical closeness to the patient, (1) none (patient and chart reports, unknown whereabouts of family, (2) very remote (family is in other state or maintains contact once every 10 years, (3) not far (family is geographically within reach of the patient), (4) proximal (family is geographically available to visit patient at home or hospital).

16) The family involvement with the patient was measured by the number of visits made by the family to the

patient while in the hospital, currently or most recent hospitalization in the first two weeks of the hospitalization period. The scores were as follow: (1) none, (2) one visit, (3) more than one, (4) excessive (more than 5).

17) The precipitating cause of the current or most recent hospitalization was scored: (1) suicidal-homocidal (paranoid features and actual attempts), (2) disorganized behavior (drug related psychosis, decline in personal hygiene, wandering streets), (3) bizarre-disoriented (behavior such as acting out hallucinations, sense of lost, not due to organic or drug induce), (4) psychotic depression, (5) social/family problems, other non-psychotic.

18) Behavior during the N-1 hospitalization was rated based on the number of incident reports (which are based on physical assault), seclusion orders, and involvement in ward activities. (1) Dangerous (2 or more incident reports and 2 or more seclusion orders), (2) aggressive (more than one seclusion orders, and suicidal observation), (3) withdrawn (refusal to shower, eat, and participate in ward activities, (4) quiet (no incident nor seclusion and follows treatment plan), (5) cooperative (attends therapeutic community meetings regularly and recreational therapy at least twice per week), (6) liked by staff (maintains personal hygiene, helps therapy aids in ward work as part of treatment).

19) The patient's type of treatment, received while hospitalized, was as follows: (1) medication, (2) psychotherapy,

(3) recreational, (4) rehabilitation, and when more than one type of treatment, the sum of the scores.

20) The patient's response to medication was scored, (1) does not accept medication, (2) accepts medication sporadically, (3) accepts medication. This information was obtained from the patient's chart.

21) Patient's response to psychotherapy was scored: (1) not offered, (2) offered, not accepted, (3) offered and accepted.

22) The geographical location of the first hospitalization was scored as: (1) Out of State, (2) New York State, (3) New York City. The place of the N-1 hospitalization was also scored in the same manner.

23) The change from group was measured. If the patient had been in another group during N-2 hospitalization it was scored (0) for no change, (1) group 1 to group 3, (2) group 1 to group 2, (3) group 2 to group 3, (4) group 3 to group 2, (5) other (not group 2, 3, nor 1). These scores were only for group 2 and 3. For group 1, any changes were scored as (0) irrelevant (only 1 hospitalization), (1) group 2 to 1, (2) group 3 to 1, (3) other (not group 1 or 2), (4) no change.

24) Marital status was scored, (1) single, (2) divorced (separated), (3) widow, (4) married. In the event that the patient had been in one category, but is currently in another it was scored by the sum of the scores.

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