Variables Affecting Compliance with Treatment of Post-Hospitalized Patients with Chronic Mental Illness

MILES A. LINSKY, PhD

EVIDENCE IN THE RESEARCH LITERATURE documents a lessening of the percentage of readmissions to State mental hospitals among patients who receive aftercare (*1*, *2*). The literature also indicates that a supportive environment is important in the aftercare setting (*3*).

Many studies have been concerned with factors that contribute to a patient's keeping appointments. These include organizational factors as well as characteristics of the patient. In terms of patient characteristics, it has been found that patients with less education tend to miss appointments (*4*, *5*). Those who are members of ethnic minorities have been reported to break more appointments than the nonethnic majority (*4*, *6–9*). As cited by Hertz and Stamps (*10*) and several other researchers, a positive relationship exists between low income and number of broken appointments. Social disorganization in low-income urban families is also related to poor appointment-keeping behavior (*11*). It should be noted that these investigators did not study chronically ill post-hospitalized patients exclusively.

Those in the group I studied were post-hospitalized aftercare patients; most were black and economically disadvantaged and their average level of education ended at the 10th grade. Within this population, it is important to identify further characteristics that may differentiate patients who follow through with recommended care, as defined by attendance at scheduled individual and group treatment sessions, from those who do not. This investigation was done before studying the effectiveness of the overall treatment program of a community mental health center. By proceeding in this manner, a descriptive picture of the patients could be obtained. I began the study when all aftercare programs had been in operation for at least a year.

Treatment Setting

The treatment setting was the Mile Square Comprehensive Community Mental Health Center. It is part of the Mile Square Comprehensive Health Center. Established in 1967 to provide outpatient health services, the center is located in an area of Chicago characterized by poverty and poverty's long-term effects. Nearly half of the resident families have incomes below poverty level, and almost half are one-parent families. The population's racial composition is 76 percent black, 22 percent white, 1 percent Spanish, and 1 percent other. Since the establishment of the center, patients have been able to receive coordinated comprehensive health services at one facility. The services include clinics for adult medicine, pediatrics, obstetrics and gynecology, podiatry, dentistry, and mental health.

The aftercare program of the center is designed to prevent rehospitalization as well as to aid those patients who have been recently discharged from inpatient psychiatric facilities. Various interventions are made to as-

Dr. Linsky is clinical psychologist at the Lutheran General Hospital, 1775 Dempster St., Park Ridge, Ill., 60068. Tearsheet requests to Dr. Linsky.

The study described in this paper was conducted by the research committee of Mile Square Comprehensive Community Mental Health Center, Chicago. Its members were Miles Linsky, Dolores Exum, Charlean Davis, and Adoniya Kyeyune.

sist mental health patients adjust on their return to community living. Psychiatrists give the patient an initial psychiatric examination and recommend a schedule of regular appointments with the psychiatrist to monitor psychotropic medications. The primary therapist (psychologist or social worker) coordinates the patient's overall care and provides individual psychotherapy.

The mental health staff uses structured groups to develop the basic skills that patients need for a positive experience in independent living (basic social skills, personal hygiene, and prework skills). Craft, art therapy, and sewing groups as well as talk groups are functioning. The staff working with the groups includes social workers, occupational therapists, art therapists, and activity therapists.

In this study I examined four variables of the patient population. Given that social disorganization is related to appointment-keeping behavior, as was mentioned previously, the relationship between the patient's degree of social isolation and compliance with recommended care was assessed. Recommended care was determined as a result of clinical assessment by the intake worker, psychiatrist, and a multidisciplinary staff meeting on the patient. The effect on attendance at the center of negative communication by patients' families about mental illness and its treatment was measured. Although the comprehensive community mental health center (CCMHC) is located within and integrally connected with a comprehensive health center (CHC), it was hypothesized that patients with other health problems being treated at the CHC would continue with appropriate mental health care at a rate different from those patients who did not have other health concerns treated at the CHC.

Finally, the relationship between severity of psychopathology at point of intake and participation in recommended mental health care was assessed. Previous studies indicated that the psychiatric diagnosis alone has no relationship to participation in therapy (*12–14*).

Method

Subjects. Patients who were selected had to fulfill three criteria: (*a*) be first admitted to the CHC's mental health department between September 1976 and September 1977, (*b*) be between the ages of 18 and 60 years at intake, and (*c*) have had at least two psychiatric hospitalizations within the 2 years before intake, thus qualifying as a post-hospitalized patient with a chronic illness. A total of 33 patients met these 3 criteria. Data collection began in February 1978 and was completed 1½ months later.

Assessment instrument. To assess the patient's compliance with appropriate care, the numbers of appointments scheduled with the psychiatrist, with the primary therapist who is a psychologist or social worker, and with community day treatment staff were compared with numbers of appointments kept. Patients were then divided into two groups according to whether or not they kept 50 percent of scheduled appointments. To measure the severity of psychopathology at intake, the

therapist was asked about the patient's diagnosis, medication, personal hygiene, personal appearance, and affect at intake. Presence of hallucinations or delusions, or both, was also recorded on the questionnaire. These factors were then rated.

To assess the degree of social isolation, the therapist was asked about the patient's living arrangements (living alone or with others, and which others) and if the therapist considered the patient socially isolated regardless of the living arrangement. The therapist's awareness of negative communication in the patient's household about mental illness or its treatment was also sought. The patient's medical chart was checked to discern treatment for other medical problems at the center. A copy of the assessment instrument and rating system can be obtained from the author.

Procedure. To insure that all patients fulfilling the three criteria for the study had been included, the investigator carefully checked all active and inactive files. The questionnaire was then distributed to each patient's therapist. Appointments scheduled and kept were computed by using the patient's chart.

Results

In testing the data, the investigators used the z test for the differences between proportions and found that two hypotheses were supported. One hypothesis stated that patients with other health needs requiring medical care are more likely to continue in mental health care. Of the patients keeping treatment appointments more than 50 percent of the time, 10 of 21 had other medical problems. The percentages were as follows:

Patients kept appointments	*Had other medical problems*	*Had no other medical problems*
More than 50 percent	[1] 47	53
Less than 50 percent	8	92

[1] $z = 2.30$, $P < .05$

Of those who kept more than 50 percent of their appointments, significantly more did, in fact, receive medical care than those who broke more than 50 percent of their appointments.

A relationship, although not significant, was found for the hypothesis that negative communication in families about mental illness and its treatment is likely to influence the patient's acceptance of care. Of those patients attending less than 50 percent of the time, 4 of 12 had had negative communications. Also, if negative communication had occurred, there was about twice (.33 versus .19) as great a chance of the patient not keeping appointments. These percentages are as follows:

Patients kept appointments	*Negative communication*	*No negative communication*
Less than 50 percent	33	67
More than 50 percent	19	81

No significant relationship was found between severity of psychopathology and the patient's ability to participate in the program, nor was there a significant difference between the attendance of socially isolated, chronically ill patients and the nonsocially isolated patients.

Discussion

By reviewing the hypotheses, the results give a more clearly defined picture of the patient population.

The supported hypothesis was that patients accepting care for other health needs at Mile Square CHC tended to continue in mental health care. One implication of this finding is that a patient who has other health concerns begins to identify with the center other than solely for mental health needs. It is this health center's policy to suggest to patients that they use its other available health services. For those patients distressed about receiving mental health services, the possibility exists that treatment in another department of the health center will strengthen the patient's ability to continue in appropriate mental health care. This availability may give that patient a different view of mental health services. It may, as well, also lessen the stigma attached to receiving mental health services.

There were no clear patterns in the type of medical needs of patients that were being met. The routine medical checkup and concerns about hypertension were most often the reasons patients used the center's medical services.

Another hypothesis explored in this study was that negative communication in families about mental illness could have a negative effect on the patient's acceptance of care. The results indicated that such communications could have an adverse effect on a patient's attendance. These results, although not statistically significant by the z test, point to the influence that a significant other person may have on a patient. If, in fact, a family has been misinformed or has no knowledge of mental illness, negative comments and a lack of positive reinforcement will begin to take its toll on the patient's acceptance of care. The patient's first attempt to find support, normally from a family member, will be met with criticism and rejection. This negative influence can be counteracted with an educational and supportive approach by the primary therapist and other mental health professionals that will help the patient, his family, and the community to understand the nature of the patient's needs. Indeed, extra efforts are needed to involve sig-

nificant others in mental health programs, and therapists might consider family therapy more often as the treatment modality of choice.

Regarding the hypothesis that severity of psychopathology would hamper participation in the total treatment program, the results suggested that a patient's ability to continue in the structured program is not directly related to his psychopathology. In designing this hypothesis, consideration was given to the possibility that a patient's diagnosis, as well as his functioning at intake, affects his or her ability to continue in appropriate care. If the findings had been contrary to those reported, one could conclude that special methods aimed at stimulating certain patients' participation would have to be added to the comprehensive mental health center's armamentarium.

Another hypothesis explored was the possibility that social isolation hampers the patient's ability to continue in treatment. The hypothesis was chosen in view of the possible effects, in terms of attendance, that living with significant others would have on patients in comparison with patients who did not live with significant others. If, in fact, a patient were socially isolated, the investigator believed that the support which significant others could provide would be absent and therefore affect the patient's attendance. However, a review of the results indicated that social isolation or living with significant others does not influence the patient to continue in care.

The results have obvious ramifications. Patients with chronic mental health problems should be encouraged to use the health center for medical problems. The center's staff needs to work on counteracting the negative communication between family members about mental illness and its treatment. Although valuable information was gathered as a result of studying patient characteristics, in future research the staff of the Mile Square CCMHC will examine the staff variables that may be related to the chronically ill patient's adherence to recommended treatment.

References

1. Anthony, W., Buell, F., Sharrath, S., and Althoff, M.: Efficacy of psychiatric rehabilitation. Psychol Bull 78: 447–456 (1972).
2. Kirk S.: Effectiveness of community services for discharged mental patients. Am J Orthopsychiatry 46: 646–660 (1976).
3. Lamb, J.: Community survival for long term patients. patients. Jossey-Bass, London, 1976.
4. Stine, O.: Broken appointments at a comprehensive clinic for children. Med Care 6: 332–339 (1968).
5. Bailey, M., Warshaw, I., and Eichler, R.: A study of factors related to length of stay in psychotherapy. J Clin Psychol 15: 442–444 (1959).
6. Jonas, S.: Appointment breaking in a general medical clinic. Med Care 9: 82–88 (1971).
7. Alpert, J.: Broken appointments. Pediatrics 34: 127 (1964).
8. Elling, E., et al.: Patient participation in a pediatric program. J Human Behav 1: 183–191 (1960).
9. Hurtado, A., et al.: Determinants of medical care utilization: failure to keep appointments. Med Care 11: 189–191 (1973).
10. Hertz, P., and Stamps, P.: Appointment keeping behavior reevaluated. Am J Public Health 67: 1033–1036, November 1977.
11. Becker, M. H., Drachman, R. H., and Kirscht, J. P.: Motivations as predictors of health behavior. Health Serv Rep 87: 852–862, November 1972.
12. Garfield S., and Affleck, D.: An appraisal of duration of stay in outpatient psychotherapy. J Nerv Ment Dis 129: 492–498 (1959).
13. Rosenthal, D., and Frank, J.: The fate of psychiatric clinic outpatients assigned to psychotherapy. J Nerv Ment Dis 127: 303–343 (1958).
14. Lief, H., Lief, V., Warren, C., and Health, R.: Low dropout rate in a psychiatric clinic. Arch Gen Psychiatry 5: 200–211 (1961).

SYNOPSIS

LINSKY, MILES (Lutheran General Hospital, Park Ridge, Ill.): *Variables affecting compliance with treatment of post-hospitalized patients with chronic mental illness. Public Health Reports, Vol. 96, March–April 1981, pp. 178–181.*

The subjects in this study were 33 patients aged 18 to 60 years who were first admitted to an outpatient mental health department in a 1-year period and were known to have had two or more hospitalizations in State or private psychiatric institutions in the 2 years before intake. The relationships between four patient variables and compliance with recommended treatment were studied. The four variables were (*a*) severity of psychopathology at intake, (*b*) evidence of negative communication in a patient's family concerning mental illness and its treatment, (*c*) degree of social isolation, and (*d*) use of the health center for treatment of nonpsychiatric medical problems.

Using the *z* test, a significant positive relationship was found between compliance with recommended treatment and the usage of the health center for other medical problems. Presence of negative communication from family and nonadherence to recommended treatment were correlated positively. Living with others significant to the patient did not affect compliance with treatment. Compliance was measured by dividing the patients into those keeping or not keeping 50 percent of appointments with therapists.