A total of 175 newly admitted inpatients who lived with families were randomly assigned to three treatment groups: standard inpatient care (discharge at the therapist's discretion); brief hospitalization (one week or less) with transitional day care available, and brief hospitalization without day care. Outpatient aftercare was offered to all patients. The three groups showed no significant differences as to amount of improvement in levels of psychopathology at 3 and 12 weeks, but the briefly hospitalized patients were able to resume their vocational roles sooner. There were no significant differences among the groups in readmission rates.

In recent years there has been an increasing awareness of the potentially deleterious effects of prolonged psychiatric hospitalization, such as regression, damaged self-image, deterioration of role functioning, extrusion from the family, and loss of ties to community institutions. As a result, many psychiatrists have attempted to return hospitalized patients to the community as soon as possible. Although there are a number of reports on the benefits of brief hospitalization (1-5), there are few controlled studies in this area.

Caffey, Galbrecht, and Klett (6) reported that schizophrenic patients in a brief hospitalization group (29 days) exhibited somewhat more psychopathology at the time of their earlier discharge compared with schizophrenic patients in a standard hospitalization group (83 days), but at 6 months and 1 year after admission, they showed at least as much improvement in psychopathology. In addition, the briefly hospitalized group did not demonstrate a greater incidence of readmission or a significantly shorter mean time out of the hospital prior to first readmission. In a controlled study of patients who had recently been hospitalized, we (7) found that day hospitalization proved to be superior to inpatient hospitalization on most outcome measures. A major deficit of these studies is that they did not evaluate the effects on the patients' families.

In 1971 we began a project to study the following three basic issues with regard to newly admitted inpatients who lived with responsible adults: 1) the relative efficacy for the patient of brief hospitalization as an alternative to standard inpatient care, 2) the possible advantage for the patient of transitional day care following brief hospitalization, compared with direct discharge to the community, and 3) the evaluation of the impact of each of these programs on the patients' families. Intake to the study was completed on June 15, 1973. This paper will report the initial results regarding the patients. Subsequent papers will explore the impact on the patients and their families during a two-year follow-up period.

METHOD

Subjects

The study was conducted on the Washington Heights Community Service of the New York State Psychiatric Institute. The service is responsible for a catchment area with a population of 90,000 in an ethnically diverse lower-income area of upper Manhattan in New York City.

All patients admitted to the inpatient service were evaluated for possible inclusion in the study on the first weekday following their admission. The attending psychiatrist and the therapist (a psychiatric resident or psychologist) assigned to the patient carried out the evaluation. A total of 175 patients met the following criteria for inclusion in the study: 1) above 16 years of age, 2) living with a responsible adult, 3) having a functional psychiatric illness, 4) having no serious medical illness requiring hospitalization, and 5) not having a primary diagnosis of alcoholism, drug addiction, organic brain syndrome, antisocial personality, or adolescent behavior disorder.

Description of Treatment

Immediately after their evaluation for inclusion in the study, those patients who met the criteria were randomly assigned to one of the following three treatment groups:

1. Standard-out group (N = 63). Standard hospital procedure was followed, i.e., the length of hospitalization was determined by the evaluation of the individual thera-
first. When inpatient care was no longer deemed necessary, the patients were discharged and followed, if appropriate, as outpatients.

2. Brief-day group (N = 61). Every attempt was made to discharge these patients from inpatient care to aftercare within 1 week. The patients and their families were told that in all probability the patients would be discharged from inpatient care within 1 week but would receive appropriate aftercare services. When the subjects were discharged from inpatient care, they could receive any care unless it was considered unnecessary. There was no separate program for day patients. While at the hospital, they participated in the same program with the same staff as the inpatients. Discharge from day care was at the therapist's discretion, with outpatient treatment provided when appropriate.

Acceptable reasons for prolonging the inpatient hospitalization included suicide risk, possibility of violent behavior, and extreme disorganization. Whenever a patient could not be discharged within 1 week, the reasons were recorded on a form.

3. Brief-out group (N = 51). The inpatient treatment for this group was identical to that of the brief-day group. Day care was not offered, i.e., brief hospitalization was followed by full discharge, with outpatient therapy when appropriate.

Once a patient was assigned to a treatment group, he was reassigned to the same group on subsequent readmissions during the entire follow-up period of 2 years after initial admission. All patients were treated on the same 55-bed inpatient ward, which has an open-door policy except for a closed 10-bed intensive care unit. Patients in the three groups were treated by the same staff and participated together in the same activities during the day. Ordinarily, the same therapist followed the patient from inpatient status to day, or outpatient, status. When the therapist completed his rotation on the service, the patient was transferred to an outpatient staff therapist.

The demographic and diagnostic characteristics of the patients in the three groups are shown in Table 1. The only significant differences among groups were more men in the brief-out group than in the brief-day group and fewer married patients in the brief-out group than in either of the other two groups (p < .05, using two-tailed t test). There were no significant differences in any of the other diagnostic variables measured, including duration of current condition; age when first hospitalized; adolescent drug and adult friendship patterns; overall academic and work performance; past hallucinations, delusions, suicidal attempts, and arrests; and clinical judgment of overall severity of illness from age 12 to 1 month prior to admission or during the month prior to admission.

**VALUATION OF TREATMENT**

The differential effects of these three treatment programs on the patients' psychopathology and social role functioning and the effects on their families were investigated by successive cross-sectional evaluation at admission, at 3 weeks, and at 3, 6, 12, 18, and 24 months after admission.

One of several research interviewers directly examined each patient using the Psychiatric Status Schedule (PSS) (9), a standardized research procedure. The items of the PSS can be summarized into four factor-analytically derived symptom scales and one scale of role functioning.

In addition, the research interviewer also made a summary judgment on the Global Assessment Scale (GAS) (10), an instrument designed to allow the rater to make an overall evaluation of a patient's functioning on a hypothetical continuum of mental health-illness. It uti-
The percent of patients who were actively in treatment (inpatient, day, or outpatient) at 6 months is as follows: brief-day, 74 percent, brief-out, 65 percent, and standard, 57 percent. Thus, contrary to the expectation that prolonging hospitalization would lead to more commitment to treatment, more brief patients were in active treatment at 6 months.

**Measures of Psychopathology**

At the present time, initial, 3-week, and 12-week evaluations have been completed on all of the patients. There were no significant differences on initial levels of psychopathology for the three groups on either the PSS or MSER scale scores. All three groups of patients improved on virtually all measures of psychopathology at 3 and 12 weeks. Analysis of covariance was used to evaluate whether the groups differed in the amount of improvement in psychopathology; there were no significant differences.

Only the Summary Role scale of the PSS showed a significant difference among the three groups (p<.05, two-tailed t test). At 3- and 12-week follow-up, the standard group showed more impairment in role functioning than did either of the brief groups. This was largely a function of the larger number of standard patients who were still in the hospital full time and therefore could not perform any role functions. Of those patients who would ordinarily be expected to work, only 13 percent of the standard group were working at 3 weeks, in contrast to 23 percent of the brief-out group and 30 percent of the brief-day group. For those patients who were actually fulfilling their roles as housekeeper, wage earner, or student at 3 weeks, the level of impairment was in the upper range of “mild,” with no difference among the three groups.

Figure 4 contrasts the initial PSS scale scores for the combined study group on admission with the 3-week follow-up scores for each of the three study groups.

There were no significant differences between the GAS ratings made by the therapists and the research interviewers, and there were no significant differences in the amount of improvement among the three groups. The overall amount of improvement from time of admission to 12 weeks was statistically significant (p<.05, two-tailed t test) and of considerable magnitude. The overall average rating at admission was 31. This score is at the bottom of the range defined as “Major impairment in several areas such as work, family relations, judgment, thinking, or mood, some impairment in reality testing or communication, or single serious suicidal attempt.” At 3-week follow-up, the average GAS score was 45, which is in the middle of the range defined as “Any serious symptomatology or impairment in functioning that most clinicians would think obviously requires treatment or attention...” At 12 weeks there was further improvement in all groups, with the average GAS score increasing to 51, which is at the bottom of the range defined as “Moderate symptoms or generally functioning with some difficulty....”
Relative Use of Staff Time and Medication

Did the staff spend more time with the brief groups during the first 3 weeks? Many staff members anticipated that they would have to spend more than the usual amount of time with these patients in efforts to ensure a speedier recovery and with their families in offering support and guidance in dealing with the patients' disturbed behavior. This expectation was not borne out with regard to primary therapists' time. During the first week the brief-day group took an average of 82 minutes of the social service staff's time, which was significantly more than the brief-out group (51 minutes) and the standard group (46 minutes) (p < .05, two-tailed t test). Thereafter there were no significant differences. The reasons for the greater use of social service time by the brief-day group are not yet clear.

Contrary to expectations, the brief groups received significantly less psychotropic medication during each of the first 12 weeks of the study (p < .05, two-tailed t test). This difference was particularly striking during the first week, when almost all patients were receiving psychotropic medication and the therapists might have been expected to use more medication to hasten the resolution of acute symptomatology in the brief patients.

DISCUSSION

In this paper we have attempted to answer the question: What is the relative efficacy of brief hospitalization (less than 1 week), with and without transitional day care, compared to standard hospitalization and discharge at the therapist's discretion, with all patients offered outpatient aftercare when appropriate?

All three groups made substantial improvement on measures of psychopathology, as evaluated by both the therapist and the research interviewer. There were no significant differences in psychopathology among groups at 3 and 12 weeks, indicating that the resolution of acute symptomatology was not affected by shortening the length of inpatient stay to about 1 week. Thus the results did not support either of these conflicting views: 1) that patients resolve their acute symptomatology faster if they are removed from the stressful life situation that may have been associated with the development of the present illness, and 2) that patients recover faster if they are quickly released from a regressive hospital environment. However, there was some evidence for the regressive effects of hospitalization within the first 60 days after admission to the study. While slightly more than half of the patients in each group spent at least 1 day in the intensive care unit, patients in the standard group averaged more than twice as long (8 days) in this unit for acutely disturbed patients.

While the three groups had almost the same level of psychopathology at 3 weeks, many more of the brief patients were able to resume their roles as wage earner, housekeeper, or student because of their early return to the community. Although there is no direct evidence, we assume that the earlier release, coupled with the state-

ment from the therapist that only a week of hospitalization was expected, enabled many patients to return to jobs that they might have lost had their hospitalization been prolonged. In addition, it is likely that resuming one's major occupational role with only mild impairment has a positive effect on self-esteem as compared with the role of being a patient in a psychiatric hospital.

Clinical staff members are often reluctant to release a patient after only a short hospitalization because of their fear that there will be a greater likelihood of an early readmission. In this study, as in several others (5-7), the early hospital release was not associated with a significantly higher readmission rate. It is of interest that there was no evidence that the availability of transitional day care after a brief inpatient stay reduced the readmission rate.

All of the patients in our study lived with their families or with an adult with whom they had a close relationship. Hence these findings may not apply to the large number of patients who live alone (31 percent of our admissions) and most of whom are socially isolated. In addition, these findings may not apply to inpatient programs that have no aftercare components and therefore refer patients to another facility for aftercare. Similarly, these results may not apply to facilities that do not have the professional staff to provide the range of inpatient and aftercare services offered at our facility.

In this paper we have examined the early effects of brief hospitalization on patients with families. We have not yet examined the long-term effects on the patients or the effects on the families. However, the early results clearly suggest that for the patient, brief hospitalization is as good as standard hospitalization in terms of resolution of acute symptomatology and readmission rates and is superior in terms of role functioning and time spent in the community.

*The brief groups improved significantly more than the standard group (p < .01).
REFERENCES


10. Spitzer RL, Gibbon M, Endicott J: Global Assessment Scale. New York, Biometrics Research, New York State Department of Mental Hygiene, 1974
