HOSPITAL STAY OF IN-PATIENTS IN A GENERAL HOSPITAL PSYCHIATRY UNIT

S. K. CHATURVEDI, M.D.
V. K. VARMA, M.B.B.S., M.Sc. Psychiat (Mich.), M.A.M.S., D.P.M. (Eng.), F.R. C. Psych., Dip. Am. Bd. Psych.
SAVITA MALHOTRA, M.D.
PRADEEP KUMAR, M.B.B.S.

SUMMARY

This report examines the hospital stay of psychiatric in-patients in a general hospital psychiatric setting. The hospital stay days, psychiatric diagnosis, outcome, number of re-admission and some socio-demographic details of patients admitted during one year period were recorded and analysed. The mean hospital stay was 29.39 ± 20.42 days. 60% patients stayed less than 4 weeks. The mean hospital stay of various categories was calculated. Schizophrenics 29.62 ± 25.82 days, manic depressives 35.29 ± 33.04 days and neuroses 24.83 ± 18.43 days. Chronic Schizophrenics stayed longest (43.64 ± 22.56) days. Of the Affective Psychosis group, between manics and depressives no difference was noticed. Good prognosis and relatively benign conditions had a briefer stay. Patients with no improvement stayed for significantly shorter period (p<.001). Readmission cases tend to stay longer than fresh admissions (p<.05). The implications and interpretations especially in a general hospital psychiatric setting are discussed.

Short-term psychiatric hospitalisation is becoming increasingly popular. In recent years, several studies have evaluated the value of different lengths of psychiatric hospitalization and of alternatives to hospitalization (Mattes, 1982). But these pertain more to mental hospitals and such institutions. With the rapid growth of psychiatric units in general hospitals it becomes important to study the functioning of these units as the studies evaluating one type of hospitalisation are not necessarily relevant to other type. A general hospital psychiatric unit in India handles all types of psychiatric problems, even those which previously were the domain of mental hospitals (Wig, 1978).

The duration of stay has been reported in some epidemiological studies (Davis et al, 1967; Khanna et al, 1974; Vahia et al, 1974; Sharma and Hussain, 1977). Sharma and Hussain (1977) compared the duration of stay of Psychiatric in-patients in a mental hospital and general hospital settings and found the mean duration of stay to be significantly longer in the mental hospital (5.4 weeks) than in the general hospital (2.7 weeks). Khanna et al (1974) reported that 60% patients stayed for less than a month and only 10% stayed more than 2 months. Studies report good outcome of samples from general hospital. Hibberd and Trimboli (1982) compared the correlates of successful short term psychiatric hospitalisation in a urban general hospital's psychiatric inpatient unit. This may indicate the primary therapeutic and rehabilitative function of the Psychiatric unit in a general hospital with fairly rapid restoration, to the community in improved conditions (Sharma & Hussain, 1978).

Since there is a rapid growth of general hospital psychiatric units in the country there is an urgent need to evaluate its
functioning and role. Keeping this objective, an attempt has been made to study the duration of hospitalisation of all patients in a general hospital psychiatric setting and assess the relationship with certain clinical variables.

METHODOLOGY AND SAMPLE

The sample included all patients admitted to Nehru Hospital Post Graduate Institute of Medical Education & Research Chandigarh in Psychiatric unit from 1st Jan., 1981 to 31st December 1981. The hospital contains a 24-bed inpatient psychiatric ward. The treatment goals of the unit include extensive assessment of the patient's difficulties, intervention and treatment, aims at improving the patient clinically and socially as far as possible. Patients treated on the unit usually are admitted through the hospital's psychiatry out patient-clinic and walk-in clinic. Although no specific admission criteria are used, usually those patients are admitted who are likely to benefit from inpatient care.

Each patient's age, sex, number of readmissions, date of admission, date of discharge, hospital stay days, final diagnosis, psychological testing and treatment given to the patient and clinical outcome were recorded.

The outcome was rated as "no improvement" if the condition of patient remained the same or got aggravated despite the therapeutic intervention, "slight improvement" when the improvement was clinically perceived to be significant but insufficient, "Moderate improvement" when only a minor dysfunction remained and patient regained the capability to adjust and integrate in the society, "Total recovery" qualified when patient returned to premorbid level functioning with total remission of behavioural disturbance.

There were 264 patients admitted during this period. 60% were males.

| Table 1. Total admissions = 264 Out Patient Attendance: |
|--------------------------------------------------------|
| New Cases Registered : 1559                            |
| Walk-in Clinic Cases : 3500                             |
| Yearly follow-up visits : 20,000                        |

| Hospital Stay :                                         |
|--------------------------------------------------------|
| Hospital stay in days | Number of patients | N  | %       |
|-----------------------|--------------------|----|---------|
| Less than 7           | 19                 | 7.2|         |
| 8—14                  | 39                 | 14.8| 59.4%   |
| 15—21                 | 49                 | 18.6|        |
| 22—28                 | 47                 | 17.8|        |
| 29—35                 | 30                 | 11.4|        |
| 36—42                 | 18                 | 6.8 |        |
| 43—49                 | 22                 | 8.3 |        |
| More than 49          | 40                 | 15.2|        |

Their diagnostic breakdown is given (Table 2). Most were diagnosed as Manic Depressive Psychosis, Schizophrenia and Neurosis. Fifty patients were re-admissions. The outcome at discharge is given in Table 3.

RESULTS

The emphasis of the study is on the hospital stay duration and the clinical correlates. 59.4% patients stayed less than 4 weeks and 15.2% stayed longer than 7 weeks. The mean hospital stay was 29.39 ± 20.43 days. The hospital stay of various diagnostic categories and sub-categories was calculated (Table 2). The hospital stay days in patients who were re-admitted was longer (p < .05) than those admitted for first time (Table 4). The relationship between the hospital stay and the "outcome" at discharge was also studied. Patients who did not show any improvement stayed for a significantly shorter period (18.84 ± 16.94),
### TABLE 2. Psychiatric Diagnostic Subcategories in Relation to Hospital Days

| Diagnosis                  | No. of Patients | Mean  | S. D.  |
|----------------------------|-----------------|-------|--------|
| 1. Schizophrenia           | 73              | 29.62 | 25.82a |
| Catatonic                  | 12              | 39.25 | 15.42  |
| Paranoid                   | 14              | 28.43 | 15.62  |
| Acute                      | 18              | 32.06 | 17.94  |
| Chronic                    | 12              | 43.64 | 22.56  |
| Others                     | 17              | 18.21 | 18.05  |
| 2. ManicDepressive Psychosis| 92              | 33.29 | 33.04b |
| Mania (296.0)              | 24              | 31.64 | 20.25  |
| Depression (296.1)         | 25              | 33.89 | 15.73  |
| Others                     | 33              | 39.48 | 26.22  |
| 3. Neurosis                | 35              | 24.83 | 18.43a |
| 4. Drug Dependence         | 15              | 33.20 | 17.12a |
| 5. Organic Psychosis       | 13              | 14.36 | 9.38c  |

Mean stay of all patients (264)* 29.39 20.43

*36 patients belonged to other diagnostic categories as Epilepsy, reactive psychosis, childhood disorders, Adjustment reactions, etc.

As compared to mean hospital stay, applying t test (a—NS; b—p<.05; C—p<.001) (p<.001). Those who had total recovery also stayed for a shorter period (27.47±14.02) as compared to those showing 'slight' or moderate improvement (35.26±14.02), (Table 3).

### TABLE 3. Relation of Hospital Stay Days and 'outcome'

| Outcome                        | Less than 07 days | More than 49 days | Hospital Stay Mean | S. D. |
|--------------------------------|-------------------|-------------------|-------------------|-------|
| No improvement (N=35)          | 11                | 1                 | 18.84             | 16.94* |
| Slight improvement (N=34)      | 2                 | 7                 | 30.56             | 21.62  |
| Moderate improvement (N=129)   | 2                 | 26                | 35.26             | 29.07* |
| Total recovery (N=66)          | 1                 | 6                 | 27.47             | 14.02  |

As compared to mean hospital stay, applying test. 

**p<.001  
*p<0.05

### TABLE 4. Relation of Hospital Stay Days and Readmissions.

| Stay less than 7 days | Stay more than 49 days | X²  |
|-----------------------|------------------------|----|
| First Admission       | 16                     | 25 | 4.96 |
| Re-Admission          | 3                      | 15 | (p<.05) |

### DISCUSSION

The mean duration of stay of about 4 weeks (29.39±20.43 days) is comparable to that found by Sharma and Hussain (2.7 weeks). An earlier report (Khan, 1974) from the same institute as the present study reported 60% of patients having stayed less than a month (59.4% in present study) and 10% having stayed more than 2 months (15.2% in the present study stayed more than seven weeks). This indicates the consistency
of pattern of stay of patients on one hand
the failure to cut down the stay further on the other hand. Perhaps a stay of
four week is appropriate and beneficial for most patients. Hibberd and
Trimbolli (1982) have discussed clinical variables that were found to be positively
or negatively related to patient discharge into the community within 21 days after
admission. Most studies have taken 3 to 4 weeks period as suitable for brief
hospitalisation (Glick et al, 1974, 1976).

Sharma & Hussain (1978) reported
no significant change in the duration of
stay with the various diagnoses except in
cases of schizophrenia and acute schizophrenia, whereas we have noticed some
differences here. In this study M.D.P.
patients stayed longest in hospital and
many reasons could underlie it. Anti-
depressants take a relatively longer time
to take full effect and also titration of
optimum dose of lithium and its stabili-
sation prolongs the stay. Some patients
switch from mania to depressed phase
and vice versa, as is evident that
M. D. P. Circular patients stayed longer
than unipolars (Table 2).

The stay of chronic schizophrenics
and catatonics also is comparatively
longer. It is worthwhile to note that
almost 85% of the catatonic schizophrenics showed moderate improvement or
recovered completely. Since acute schizophrenia and catatonics have a better
prognosis the benefit of hospitalization is provided to ensure as much improve-
ment as possible. Some schizophrenics
(non-specific, undifferentiated and schi-
zoaffectives) had a relatively shorter stay.
Since their individual numbers are small,
they have not been analysed separately.
Continued disturbance in chronic cases could be the reason for their longer
stay.

The briefest stay is of the organic
psychotics. They either respond well,
to prompt therapy or get transferred to
the Neurology, Medical or Surgical Units for more specialised care. The
attempt with neurotics was to keep the
stay brief, to avoid their getting “undue advantage” out of the hospitalisation.
It is a policy of the Unit to keep
Drug Dependance cases on an average between 4-6 weeks for the necessary
therapies-abstinence, psychotherapy, behaviour therapy, etc.

To account for a shorter hospital
stay in “ no improvement” category, a
reciprocal relationship may be existing, i.e., these patients did not stay longer
because treatment was apparently ineffective, or that they did not stay long
enough for a clinically significant improvement to take place.

An evaluation of rehospitalised cases
reflects that more rehospitalised cases
tend to stay for longer period. This has
been reported by Mattes (1982) who
offers a simple explanation that more a
person perceives a hospital as a solution
to his problems, the more likely he is
to look for the same solution to subse-
quent problems. Some researchers have
reported finding positive relationships
between more severe psychiatric diagnoses and less successful treatment outcomes
in short term hospitalisation (Weisman
et al, 1969; Spaulding et al, 1976). Rel-
atively few demographic features have
been associated with outcome of short
term impatient treatment (Hibberd &
Trimoli, 1982,); hence they were not
considered in this report.

That the duration of stay may de-
depend on the treatment modality can also
be inferred from the study. However,
this report should only highlight the neces-
sity of further research to explore other
aspects of patients related to their out-
come and duration of hospitalisation.
Follow up studies after few weeks, few
months or years, following discharge of
patients would provide more information for the adequate period of hospitalisation (Caffey et al, 1971; Herz et al, 1979). In a general hospital setting, however, the study of neurotics, drug dependence and other acute psychotic conditions would assume as much importance as study of schizophrenia or Manic depressive psychosis.

REFERENCES

CAFFEY, E. M.; GABRECHT, C. R.; KLETT, C. J. (1971). Brief Hospitalisation and after care in the treatment of Schizophrenics. Arch. Gen. Psychiatry, 24, 81.

DAVIS, R. B; KHANNA, V.; CHOWDHURY, R. R. (1967). The first five thousand. Indian J. Psychiat., 9, 249.

Glick, I. D.; HARGREAVES W. A.; GOLDFIELD M. D. (1974). Short vs. Long hospitalisation: A prospective controlled study. I. The Preliminary results of a one-year follow up of Schizophrenics. Arch. Gen. Psychiatry, 30, 363.

Glick, I. D.; HARGREAVES W. A.; DRUES, J. (1976). Short vs. Long hospitalisation: A prospective controlled study, V. One year follow up results for non-schizophrenic patients. Am. J. Psychiat., 133, 515.

MERZ, M. L; ENDICOTT, J.; GIBSON, M. (1979). Brief hospitalisation: Two year follow up. Arch. Gen. Psychiat., 36, 701.

HUHNER, T.; TRIMBOLI, F. (1982). Correlates of successful Short-term psychiatric hospitalisation. Hospital and Community Psychiatry, 33 (10), 829.

KHANNA, B. C.; WIG, N. N.; AND VARMA, V. K. (1974). General Hospital Psychiatric Clinic-an epidemiological study. Indian J. Psychiat., 18, 211.

MATTES, J. A. (1982). The optimal length of Hospitalisation for psychiatric patients: A review of literature. Hospital and Community Psychiatry, 23 (10), 824.

SHARMA, S. D.; HUSAIN, S. E. (1977). Duration of stay psychiatric in-patients in General and Mental Hospital settings. Indian J. Psychiat., 19(2) 25.

SPAULDING, R. C.; EDWARDS, D.; FUCHS, S. (1976). The effect of Psychiatric hospitalisation in crisis. Comprehensive Psychiatry, 17, 457.

VAHIA, N. S.; DOONGADI, D. R.; JESTE, D. V. (1974). Twenty five years of Psychiatry in a teaching hospital (In India). Indian J. Psychiat., 16, 221.

WEISMAN, G.; FEIRSTEIN, A.; THOMAS, C. (1969). Three day hospitalisation: a model for intensive intervention. Arch. Gen. Psychiatry, 21, 620.

WIG, N. N. (1978). Psychiatric units in general hospitals-right time for evaluation (Editorial). Indian J. Psychiat., 20(1) 1.