

## READMISSION OF PSYCHIATRIC PATIENTS IN A PSYCHIATRIC HOSPITAL

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### Introduction

A study of readmissions is important because it is a means of assessing the degree to which current hospital practises are achieving the goals that have been set i. e., to enable a patient to maintain himself in the community in a normal manner by decreasing effects of institutionalization; to return the patient to community after hospitalization as early as possible; and thereafter to maintain him in the community as long as possible (Rosenblatt and Mayer 1974). Readmission statistics have methodological advantages. They are easy to obtain, are highly reliable (either patient is readmitted or not readmitted), so different investigators are likely to get comparable results. They are also easily quantifiable.

In recent years, workers have been concerned over the high rates of re-admission partly explained by the trend to shorter length of hospitalization, thereby, enlarging the pool of ex-patients in the community (Rosenblatt and Mayer 1974, Kirk and Therrien 1975, Rollin 1977). Unfortunately, the reports on the causes and conditions associated with the trend of increased readmissions are conflicting Marks 1977, Mulneyn and Hyer 1978).

The present study examines the read-

mission rates of psychiatric patients and their clinical and socio demographic correlations.

### Material and Methods

The sample included patients admitted during a one year period between August 1st, 1984 to July 31st 1985 under one unit of the Department of Psychiatry, NIMHANS. Admissions were made after the cases were seen by psychiatric residents, senior resident, and Consultant. Admissions were not based on any specific pre-laid criteria but were rather on clinical and management problems.

A data collecting proforma was made to tap details such as identifying data, demographic variables, such as age, sex, religion, educational status, marital status, occupation, income group, family type, urban or rural background, and clinical details such as clinical diagnosis, number of admissions and hospital stay days. Data were collected from the case files. Patients who were readmitted were compared with first admission cases. Cases which were found to have inadequate information were excluded from the study. A statistical analysis between the two groups was carried out using chi square tests.

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## Results

Table  
Sociodemographic and Diagnostic Correlates of  
Readmissions

VARIABLE	N	First Admission (N=239)	Re-Admission (N=66)	P
<b>SEX</b>				
Male	212	170	42	
Female	93	69	24	N. S.
<b>AGE :</b>				
Below 36 years	138	110	28	
36 to 39 years	89	68	21	
Above 46 years	78	61	17	N. S.
<b>RELIGION :</b>				
Hindu	258	201	57	N. S.
Others	47	38	9	N. S.
<b>EDUCATION :</b>				
Under matric	154	117	37	
Matriculate	89	74	15	
Above matric	62	48	14	N. S.
<b>MARITAL STATUS :</b>				
Single	111	89	22	
Married	194	150	44	N. S.
<b>OCCUPATION :</b>				
Housewife	75	53	22	
Unemployed	42	31	11	
Semiskilled	132	110	22	
Clerical	18	14	4	
Professional	38	31	7	N. S.
<b>INCOME GROUP (per month)</b>				
Less than 466 Rs.	168	133	35	
466 - 1666 Rs.	81	59	22	
1666 & above	56	47	9	N. S.
<b>FAMILY TYPE :</b>				
Nuclear	238	191	47	
Joint	67	48	19	N. S.
<b>URBAN/RURAL :</b>				
Rural	118	94	24	
Urban	187	145	42	N. S.
<b>DISTANCE :</b>				
Less than 50 km.	141	100	41	
50 - 200 km.	95	79	16	
More than 200 km.	69	60	9	P<.02
<b>INTIMATION SENT :</b>				
No	197	164	33	
Yes	108	75	33	P<.01

### HOSPITAL STAY :

1 - 20 days	130	116	14	
21 - 40 days	94	67	27	
41 - 60 days	45	37	8	
More than 60 days	36	19	17	P<.001

### CLINICAL DIAGNOSIS :

Organic psychosis	24	20	4	
Schizophrenia	77	61	16	
M. D. Psychosis	69	46	23	
Other psychoses	23	21	2	
Neurosis/Personality Disorders	23	18	5	
Alcoholism/Drug abuse	74	62	12	
Others	15	11	4	P<.05

There were 330 patients admitted of whom records were inadequate for 25 patients. Records of 305 patients showed that 66 had been admitted earlier and they formed the 'readmission' group for the analysis. 37 cases (12%) had one previous admission, 5% had two and 5% had three or more previous admissions.

Readmitted cases did not differ significantly from first admission cases as regards socio demographic variables such as age, sex, religion, education, marital status, occupation, income group, family type and background. However, they differed significantly ( $P < 0.02$ ) from first admission cases as regards distance from the Hospital. More cases living closer (approximately less than 50 Kms from the hospital) were readmitted. Out of 66 readmitted cases, 41 (62.1%) were from a catchment area less than 50 kms. from the hospital. Readmitted cases also differed significantly ( $P < 0.001$ ) from first admission cases as regards duration of stay in the hospital. Cases that had a stay in hospital of less than 40 days accounted for 2/3 of the readmissions. Readmission rates were comparatively lower for those with very short stay (less than 20 days) and those with longer stay (more than 40 days).

The table shows the comparison of the different demographic and diagnostic categories and their corresponding readmission rates. Manic depressive psychosis formed the largest proportion of readmissions followed by schizophrenia.

### Discussion

The reports on the causes and conditions associated with the trend of readmissions are conflicting. Readmission rates vary from 9 to 71% (Ruskin and Dyson 1969; Hogarty and Goldberg 1973; Kirk 1976 and Marks 1977). Mainly methodological differences account for such a wide variation in the rates. In this study, however, readmission rate has been found to be 21.6% within the range quoted in the studies mentioned above. The present study reveals that readmission rates are higher for Manic Depressive Psychosis, as has been reported by others (Malhotra et al 1982).

Readmissions are significantly ( $P < .02$ ) higher in patients living nearer to the hospital. This probably reflects on the availability of health services. It is likely that those residing farther away probably go to other centres or that they do not get readmissions because of lack of adequate facility. The role of Community Mental Health centres would acquire greater importance in such cases. Most earlier studies have not taken into account the distance, in their investigations.

Readmission rates are higher in patients with a hospital stay of between 20-40 days. De Francisco et al. (1980) in California, studying length of hospital stay and rapid readmission rates concluded that an increase in length of stay from 9 to 26 days was associated with a 55% reduction in the rate of rapid readmissions. There are probably different reasons for the low readmission rates in those with briefer or very long stay. The causes of readmissions were not examined in our study. We pro-

pose to study this in our forthcoming work.

The average length of stay in the hospital where the present study has been conducted is 51 days (Annual report 1984). That patients with shorter than average hospital stay have a significantly higher readmission rate can be due to various reasons. Either these patients who have a shorter stay have higher risks of readmissions due to less successful treatment outcome (Weisman et al. 1969, Spaulding et al. 1976) or the stay of a readmitted case becomes briefer in the subsequent admissions due either to their clinical diagnosis, as most readmitted cases are Manic Depressive Psychotics, or because assessment and investigations have already been completed. This issue can only be resolved by prospectively assessing readmissions in a group of psychiatric patients. However, Chaturvedi et al. (1983) found that hospital stay of readmission cases was longer in a general hospital psychiatry unit as was also reported by Mattes (1982). The readmission rates studied in this group of patients is however, similar to the rates in this hospital (Annual report 1983-84).

This study is basically an exploratory preliminary study of readmissions. Such data can only highlight the need for further exploration of causes of readmissions. Moreover the causes of readmissions, efficacy of prophylaxis, especially in Affective Psychoses, drug compliance in readmitted cases need to be evaluated systematically in prospective studies.

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