#### Article

# Mental Health Delivery System by Government Mental Hospitals in India: Trends during 1977-1993

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### Reprints request

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#### Abstract

The trend in the utilisation of government mental hospitals in India was examined, using data collected for the calendar years 1977, 1983 and 1993. A downward trend in the in-patient load, and an increase in the rate of turnover were noted. Parallel upward trends in the number of out-patients and their follow-up rates were also observed. The findings were discussed in light of the starting of strengthening the general hospital psychiatry and community psychiatry care.

Key words -

Mental health delivery system, Summary trends, National indicators

The establishment of general hospital psychiatry and the development of community mental health care were expected to change the pattern of treatment of patients in mental hospitals in India [1], [2], [3]. But there was no systematic study demonstrating and measuring the change of pattern, if any, on the mental hospital health delivery system. Therefore, the major objective of the present study was to bring out the summary trends of patients in government mental hospital system to aid in future planning and resource use.

#### **Data Source and Methods**

Channabasavanna and his associates [4] have reported data on 25 mental institutions including 19 specialised government mental hospitals in order to study the status of mental health delivery through these hospitals for the year 1977. With the purpose of classification and characterisation of these hospitals, the relevant data have been collected on 36 institutions including 25 government mental hospitals [5] for the year 1983. In order to study the long term trends, the data was updated in the present study by collecting data for the calendar year 1993. A precise and precoded questionnaire was

designed and mailed to all 34 government mental hospitals in the country. The proforma included items on four major areas, viz: size of the hospital, rate of the turnover, characteristics of discharged patients including deaths and outpatient service.

Twenty-six hospitals (76.5%) had responded to our request by sending the requisite data for the year 1993. Out of these, 18 hospitals had complete data for the year 1977 and 1983 also. These 18 hospitals covered all the major regions of the country and there was no reason why they should not be considered as representative sample for the purpose of estimation of national indicators.

In the present study, the average length of stay (ALOS) was defined as,

ALOS=Number of in-patients as on the last day of the year / Number of discharges during the year  $\times$  365

The hospital death rate (HDR) was defined as:

HDR=Number of deaths in the hospital during the year / Number of in-patients as on the last day the year  $\times$  1000

The HDR is analogous to crude death rate (CDR) of the general population to facilitate comparisons.

#### **Observations**

Table I indicates the growth trends for the government mental hospital system during 1977 to 1993. There was a decreasing trend with respect to the average bed strength per hospital (from 634 to 602 beds), average bed occupancy (from 590 to 528 patients), rate of bed occupancy (from 93.1% to 87.7%), load of chronic patients (from 60.1% to 51.4%) and the average length of stay (from 158 to 112 days). There was an increasing trend with respect to the average number of discharges per hospital (from 1362 to 1667 patients), number of new out patients per hospital (from 4106 to 5742 patients), as well as the follow-up rates (from 2.2 to 3.1). Thus the summary trend indicated a decrease in in-patient load and increase in out-patient load in government mental hospital health delivery system. Further, in this system, the proportion of psychotics among discharged patients was in decreasing trend from 91.7% to 76.3%.

#### Table I - Service indicators of 18 government mental hospitals in India

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The hospital statistics in this system was compared with the national total population base in order to obtain national indicators. Based on the estimates of the numbers of in-patients. out-patients and deaths in the system, the national indicators were obtained as shown in Table I. There was a decrease trend in the number of in-patients per one lakh general population (from 3.1 to 1.9). The ratio of HDR to the CDR increased from 3.1 to 5.6 times, while there was no trend as far as the number of discharges as well as the number of new out-patients per one lakh population were concerned.

# **Discussion**

Out of 18 hospitals studied, there were 12 small sized hospitals (bed strength less than 400) and the remaining 6 were big (bed strength more than 400). Only 6 (50%) small sized hospitals were in decreasing trend in in-patient resident population while all big hospitals were in decreasing trend. Hence, a relatively steady decrease in the in-patient resident population was observed for the whole sample of 18 hospitals. Thus the trend in relation to the size of the hospital was in accordance with the recommendations made by the workshop of medical superintendents [6] of mental hospitals in 1986. Among other things, the establishment of general hospital psychiatric units and the implementation of national mental health programme were considered as the causal factors for the decline of in-patients resident population in this system. Opinion differed whether the downward summary trend would continue or whether a 'leveling off' phase was immediately ahead regarding in-patient resident population. The bed occupancy of in-patients were decreasing more rapidly than the sanctioned bed strength solving the major problem of overcrowd in these specialized hospitals. However, mental hospitals were going to be attended mainly to chronic patients leaving the acute and amubilatory patterns to seek help from the psychiatric services in general hospitals. Several investigators [7], [8] have reported gradual decrease in the number of hospital beds in western countries from the year 1960. The number of in-patients treated (discharged) increased during the period and thus the rate of

The number of in-patients treated (discharged) increased during the period and thus the rate of turnover was in increasing order. Hence, the number of patients utilizing mental hospitals has not decreased, though the pattern of utilization has changed. Decreasing the length of stay indicated rapid restoration of patients back to the community. These hospitals were playing the modified role within the frame work of national mental health programme and the names of most of the mental hospitals have been changed into mental health and psychiatric centres.

In the present study, no trend could be established in the hospital death rate and it could be concluded that this parameter was stabilized. Several authors demonstrated excess mortality of hospitalized psychiatric patients as compared with the general population [9], [10]. The present study confirmed the same finding and further indicated that the risk of mortality of institutionalized mental patients was about five times more than that of the general population.

In general hospital psychiatry, about 69% of the treated in-patients were psychotics [11]. Among other things, the significant reduction of psychotic patients from 91.7% to 76.3% indicated the reduction of the difference between general hospital psychiatry and mental hospital psychiatry.

The increasing trend of out-patient service indicated that the mental hospitals are also principally concerned with providing follow-up and support for discharged patients and thus it seemed essential for the efficient administration of existing services or the planned expansion of facilities.

No government mental hospital has been established or closed during the period under review and it is likely that all these are going to stay. Further, the national indicators suggest that the amount of service of both in-patients and out-patients by this system was not compensating with the national population trend.

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1. Verghese A, Primary material health care in a developing country such as India

Indian Journal of Psychological Medicine Page: 5: 1-6, 1982

2.Sharma S D, General hospital psychiatry and undergraduate medical education

Indian Journal of Psychiatry Page: 26: 259-63, 1984

3.Srinivasa Murthy R, Community Mental Health News, NIMHANS, Bangalore Page: 1: 1-4, 1985

4. Channabasavanna S M, Subrahmanya B, Gangadhar B N, John C J, Venkataswamy Reddy M,

Mental health delivery system in India. A brief report

Indian Journal of Psychiatry Page: 23: 309-12, 1981

5. Venkataswamy Reddy M, Channabasavanna S M, Kaliaperumal V G, [Mental health delivery system by mental hospitals In India]

*NIMHANS Journal* Page: 6: 97-106, 1988

6.Sharma S D, Mental hospitals in India. Directorate General of Health Services. New Delhi1990

7.Strop A L, Manderschied R W, The development of the state mental hospital system in the united states: 1840-1980

J Washington Acad Sci Page: 78: 59-68, 1988

8.Kringler E, Psychiatry towards the year 2000

Acta Psychiatrica Scandinavica Page: 87: 297-301, 1993

9.Sims A, Why the excess mortality from psychiatric illness?

British Medical Journal Page: 294: 986-87, 1987

10.Amaddeo F, Bisoffi G, Bonizzato P, Micciolo R, Tansella M, Mortality among patients with psychiatric illness: A ten-year case register study in an area with a community based system of care *British Journal of Psychiatry* Page: 166: 783-88, 1995

11. Venkataswamy Reddy M, Kaliaperumal V G, Channabasavanna S M, Mental health delivery system in general hospitals attached to medical colleges in India

Indian Journal of Psychiatry Page: 37: 176-78, 1995