Asian Journal of Psychiatry xxx (2016) xxx–xxx

Contents lists available at ScienceDirect

Asian Journal of Psychiatry

journal homepage: www.elsevier.com/locate/ajp

Asian pearls

Determinants of compulsory admissions in a state psychiatric hospital–Case control study

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ARTICLE INFO

Article history:
Received 17 July 2016
Received in revised form 29 October 2016
Accepted 20 November 2016
Available online xxx

Keywords:
Compulsory admissions
Social support
Voluntary admissions
Risk factors

ABSTRACT

Objective: Compulsory admissions are against the patient's will and are presumably due to diverse reasons. There has been a rise in compulsory admissions world over. The objective of the study was to determine the risk factors for compulsory admissions in a state psychiatric hospital.
Methods: A case control study was conducted at the state psychiatric hospital, Trivandrum, Kerala. Cases were involuntary non-legal admissions while controls were voluntary admissions. Putative risk factors studied included social support, severity of psychopathology etc., in addition to the socio-demographic variables.
Results: Risk factors for compulsory admissions were higher age, 30–49 years, OR = 1.98, 95% CI [1.03–3.81]; >50 years, OR = 2.2, 95% CI [1.03–4.72], being from an urban locale,OR = 1.99, 95% CI [1.13–3.52], living in joint & extended families OR = 2.12, 95% CI [1.3–3.4], homelessness OR = 2.24, 95% CI [1.32–3.79] and poor social support, OR = 4.45 [2.53–7.81]. The type of illness, its duration, diagnosis, or symptom severity were not significantly related to compulsory admissions, but past compulsory admissions OR = 5.36, 95% CI [2.09–13.75], poor functioning OR = 2.54, 95% CI [1.31–4.91] and poor compliance to medication OR = 1.78, 95% CI [1.05–3.01] were associated with compulsory admission. Poor social support, past involuntary admissions and poor functional status retained their association after multivariate analysis.
Conclusions: By addressing the modifiable factors like poor social support, poor functional status, and poor compliance to medication, compulsory admissions could be prevented. Since it is found that compulsory admissions are likely to repeat, such patients form a high risk group requiring specific interventions.

1. Introduction

Psychiatric illness forms the only group of illness where admissions, discharges and other procedures are governed by legislation (Kendell and Zealley, 1993). Legislations are important because mentally ill persons remain the only client group who can be treated against their will. Mental health legislations usually are concerned with the procedures related to different types of admissions and discharges, rights of the mentally ill, guardianship, maintenance of property etc. (Ministry of Health and Family Welfare, 1987). Mental health legislations remained more or less similar world over, though there have been subtle differences.

In India, the Mental Health Act (MHA), 1987, is essentially for psychiatric hospitals and psychiatric nursing homes except rehabilitation centres, general hospitals being excluded from the purview of the act (Ministry of Health and Family Welfare, 1987). Under the MHA, 1987, admissions are broadly divided into voluntary and involuntary. The involuntary or compulsory admissions are against the patient's will. They are made by criminal justice agencies, independently or in response to request of relatives (Section 24 of MHA), or by medical practitioners themselves as per request of relatives (Section 19).

Many risk factors could lead to the psychiatric admissions which are compulsory. People from urban areas were found to have larger number of such admissions, the urban environment being a fertile ground for mixed cultures, floating population, migrants and jobless, and other factors like less tolerability of aggression and disarray (Webber and Huxley, 2004). Even in the urban areas, the more socially deprived areas like slums, with higher rates of

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http://dx.doi.org/10.1016/j.ajp.2016.11.007
1876-2018/

substance use and unfavourable socio economic conditions could produce more compulsory psychiatric admissions. Poor social support in the form of the absence of next of kin, single status, living alone, being homeless can also be risk factors. The presence of major mental illnesses like schizophrenia, bipolar affective disorders etc. with poor insight could progress to a state necessitating compulsory admission (van der Post et al., 2008). Moreover, these conditions can also pose situations associated with aggression and violence, self harm, neglect, thus leading to compulsory admissions (Perkins et al., 2005).

There has been a rise in the number of compulsory admissions world over (Salize and Dressing, 2004). There are no Indian studies corroborating this international trend, but perusal of records of our centre shows the same. In this background, the study was an attempt to understand the determinants of compulsory admissions in the Indian setting, an area largely unexplored. It would be interesting to study compulsory admissions in this part, where we presume social support to be better than the western society. Since compulsory admissions are a heterogeneous group, the group studied was the wandering subjects with mental illness. They form a homogenous group, who lack a criminal background, although routed through police and judiciary. Looking into the causes of these compulsory admissions would help us effectively address a group of mentally ill patients who wanders off from their locale and remain homeless for extended period, often coming into conflict with law and sometimes inhumanely treated by the society at large.

2. Methods

2.1. Setting

The study was conducted at the Government Mental Health Centre (GMHC), Thiruvananthapuram, a 507 bedded psychiatric hospital with both outpatient and inpatient facilities. It caters to the population of South Kerala, and the neighbouring state of Tamil Nadu, especially the south-western parts.

2.2. Sample

For 2:1 ratio of controls to cases 95% confidence limits,80% power and 13% lack of social support among the mentally ill patients and expected Odds ratio of 2.5 the sample size was estimated to be 100 cases and 200 controls. Considering the prevalence of poor social support from available studies, which ranges from 11 to 30%, a prevalence towards the lower range was chosen, for sample size calculation (Bronowski and Załuska, 2008). The cases consisted of compulsory admissions in the category of wandering mentally ill, from June 2010 to February 2011. The wandering mentally ill is the category of mentally ill persons who are caught by the police, taken to the magistrate and then referred to the mental health facility. The controls were two voluntary admissions which occurred immediately after the compulsory admissions. Seriously physically ill, those not giving consent etc. were excluded from both cases and controls.

2.3. Assessment tools

The study questionnaire included data on age, sex, education, employment and marital status, ownership status of house and social support. The social support construct was measured by an index of social exclusion used in other studies (Webber and Huxley, 2004). Details of compulsory admission, past history of psychiatric illness, types of admissions, compliance to medication in the past, details of substance use etc. were also collected. Diagnoses were made by International Classification of Diseases-10 (ICD-10) Diagnostic criteria for research (DCR) (WHO, 1993). The symptom severity was assessed using the Positive and Negative syndrome scale (PANSS) (Kay et al., 1987). Socioeconomic status was assessed by Kuppuswamy's socio economic status scale- revised 2007 (Mishra and Singh, 2003).

2.4. Operational procedure

Patients admitted in GMHC as compulsory and voluntary admissions during the study period were evaluated by the researcher, on the day following admission. The study questionnaire was administered to both cases and controls after getting informed consent. Information regarding the socio demographic, present and past history, history of substance use etc., were collected from the relatives. Where relatives were not available, these details were collected from the patient three weeks after admission, a time period set aside for the symptom remission and for patient to give coherent information. This data was later verified with the relatives or informant either in person, over phone or through letters. Most of the voluntary admissions had reliable informants from whom the data could be collected. About 25% of the involuntary patients could give their addresses or phone numbers of relatives, which were used to collect the corroborative evidence. For the remaining, relatives came forth following information from police, or when patients were missing for long, this formed another 50%. For the remaining 25%, the service of psychiatric social workers was used, who collected information about patients' whereabouts. In patients from neighbouring states this involved taking the patient back home and collecting information from relatives in person. This was a major practical difficulty of the study. 80 cases excluded of the total 180, during the study period was due to reasons like physical illnesses, language barrier, lack of consent etc.

2.5. Ethical considerations

Approval for the protocol was obtained from the Institutional Ethics Committee of the hospital. Only the consenting cases and controls were included in the study.

2.6. Statistical analysis

Means with standard deviations for parametric and proportions for non parametric data were used to summarise data. Univariate analysis was done using Student *t*-test for parametric data and chi square for non parametric data. Direction and magnitude of association were estimated using odd's ratio. Those variables, with P value below a cut-off of 0.1 were taken up for multivariate analysis. Stepwise forward logistic regression was used for multivariate analysis. Alpha level was maintained at 0.05 throughout analysis. Data analysis was done using SPSS statistics version 17.

3. Results

In the study, 100 cases out of 180 compulsory admissions and 200 controls out of 3981 voluntary admissions made during the study period were selected. Compulsory admissions as a group had slightly greater representation of higher age subjects. Likewise more females were found to be compulsorily admitted than males. Cases were comparatively more from districts other than Trivandrum, the place where hospital was situated. Those with family h/o mental illness had less of compulsory admissions. Above findings failed to reach statistical significance. Employment status, marital status and socioeconomic status did not differentiate cases and controls unlike other studies of compulsory admissions. Urban

Please cite this article in press as: N.V. Indu, et al., Determinants of compulsory admissions in a state psychiatric hospital–Case control study, Asian J. Psychiatry (2016), http://dx.doi.org/10.1016/j.ajp.2016.11.007