Research Article

Trend of psychiatric disorders among out-patients and in-patients of a tertiary care center of India

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ABSTRACT

Background: Pattern of psychiatric disorders found among patients visiting the hospital helps in understanding the epidemiology, heath seeking behavior as well as strategic service planning and development.
Methods: A retrospective health record review, of all the patients visiting out-patient care and in-patient care of psychiatry department of a tertiary care hospital in a period of two years, was conducted to assess the prevalence and trend of most common psychiatric disorders among them.
Results: Major depressive disorder and Alcohol use disorder were the most common conditions found in out-patient and in-patient settings respectively. Out-patient consultations were consistently increasing whereas in-patient admissions were variable and decreasing with time.
Conclusion: Current scenario and trends of psychiatric disorders among this group of patients is in line with epidemiological patterns and reflects a healthy trend of community oriented (out-patient based) care.

Keywords: Psychiatric disorders, Trend, Out-patient, In-patient

INTRODUCTION

Barriers to care for patients with psychiatric illnesses include availability, accessibility and cost of mental health care services along with ignorance, stigma and cultural belief system This influences the help seeking behavior and medical consultations by patients and care givers. As a result, very few of them finally reached the mental health care services traversing various pathways to care.

It is interesting to know the profile of these patients reaching the tertiary care hospital as the pattern of psychiatric disorders found in them may differ from the patterns prevalent in community. There has been paucity of literature focusing on the prevalence and trend of various psychiatric disorders (over time) in the patient population reaching tertiary care centers in developing countries. This study attempts to understand the epidemiological patterns of patients visiting the hospital which would help in planning and improving health services.

METHODS

The study was performed at the department of psychiatry of a tertiary care general hospital affiliated with a medical college of a metropolitan city in western India. It is one of the two centers of psychiatric care in public health services for the region of South Gujarat catering to patients from urban and rural areas of almost 17500 square kilometers (6,800 square miles) with a population density of 510 per square kilometer (1,300 per square mile).

The hospital is 900 bedded with all major specialties providing out-patient, in-patient and emergency services. For last 12 years, Department of Psychiatry runs daily

out-patient services along with round the clock emergency services and has a 15 bedded open ward for acute and short term psychiatric care. Hospital based general psychiatry services including comprehensive assessment and treatment of all psychiatric disorders are provided by a team of health professionals consisting of consultant psychiatrists, junior medical officers and nurses. Most of the patients visit the department directly while some of them are referred by other departments of the hospital. A record of all the patients visiting the out-patient and in-patient services is maintained using a structured Performa.

This study is a retrospective health record review of all the patients visiting out-patient department and in-patient department in the period from June 2011 to May 2013, to understand the prevalence and trend of most common psychiatric disorders among them. Ten most common clinical conditions (Schizophrenia, major depressive disorder, bipolar mood disorder, alcohol use disorder, other substance use disorders, anxiety disorders, headache, epilepsy, sexual disorders and childhood psychiatric disorders) were identified from the previous records. These conditions were previously diagnosed and registered in the medical records by the treating clinician as per DSM-IV TR classification for mental disorders.[1]

Permission for reviewing the records was obtained from the departmental head. The review was conducted by author who himself/herself was the treating physician in past. Patient's identity, personal data and the content of the record review was kept confidential.

A systematic record review of all the consecutive patients with each clinical condition consulting the out-patient department or getting admitted in in-patient ward during each month was done by the author. Data thus extracted was used to calculate average number of patients with various clinical conditions visiting the hospital per month, daily average patients in the out-patient and in-patient as well as bed occupancy in the ward. Data was also analyzed to understand the trend of variations in the frequency of various clinical conditions in the out-patient / in-patient settings over the period of two years. Descriptive analysis of the data was performed using simple frequency distribution charts.

It was observed that during the period of the study, the health services related factors like human resources, infrastructure, treatment facilities, cost of treatment or advertisements, which could influence the health seeking behavior or consultations, were all constant.

RESULTS

In the time span of two years (from June 2011 to May 2013), there were 405 indoor psychiatric admissions and 18668 outpatient psychiatric consultations at Department of Psychiatry.
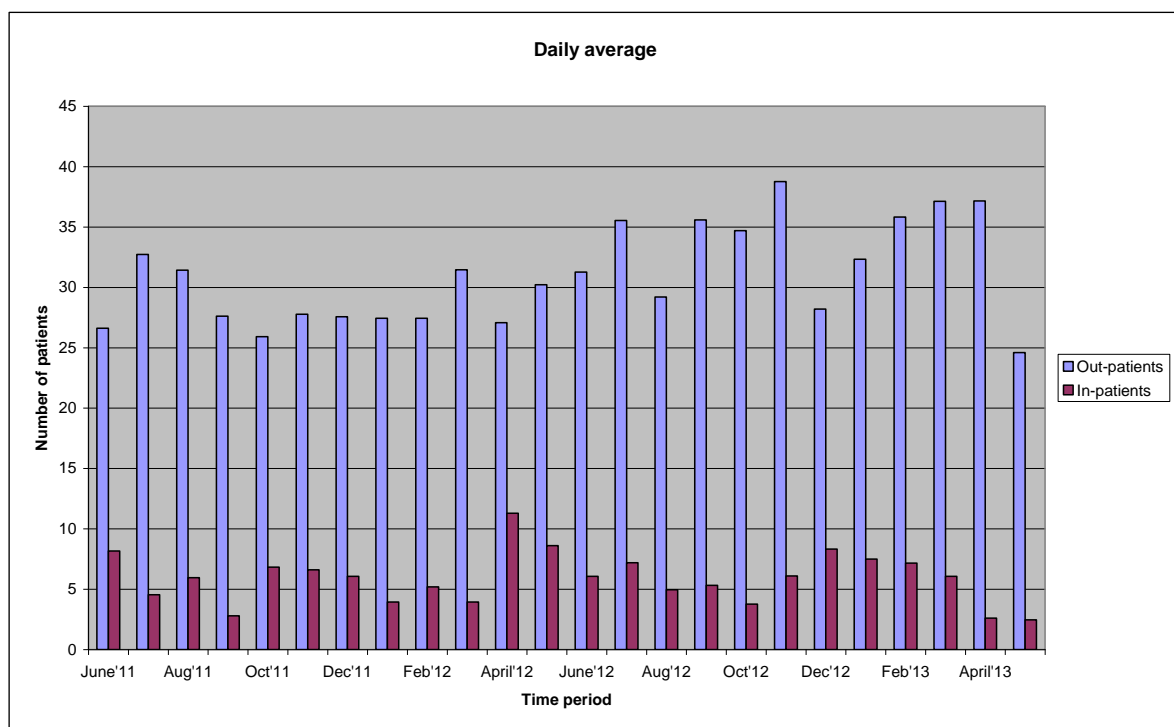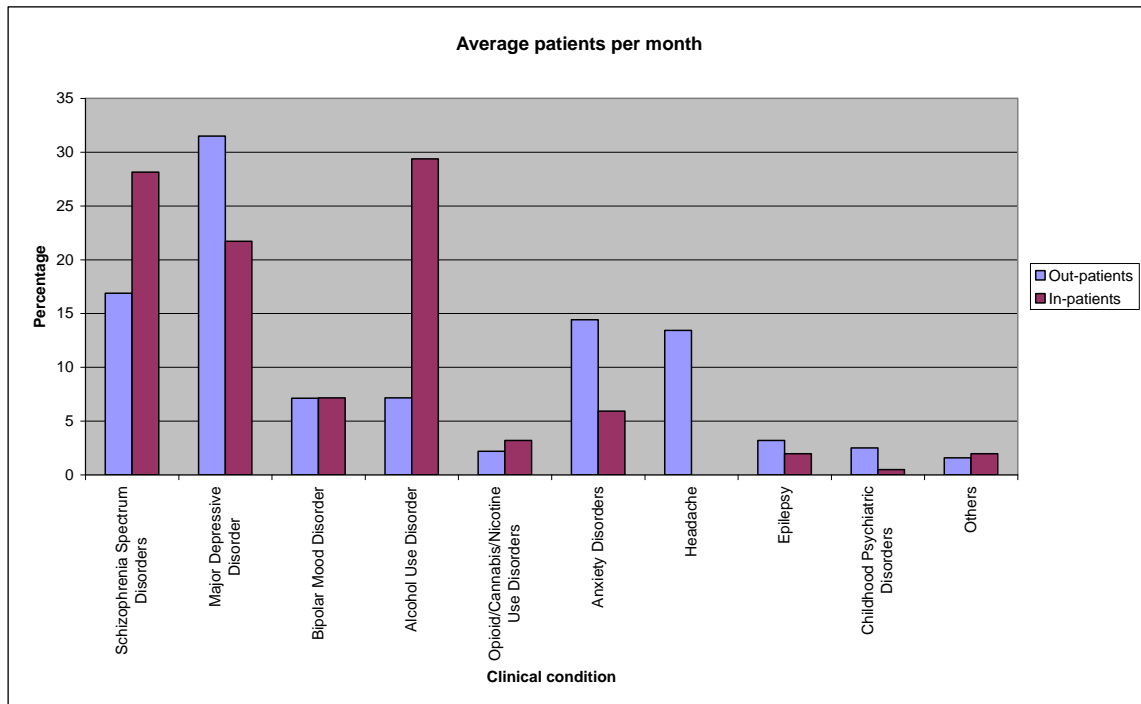

Figure 1: Daily average of Out-patients and In-patients in the span of two years.

Calculating average patients visiting the out-patient department, it was found to be 31 per day (range of 25 - 38) and average patients staying in the hospital were 6 per day (range of 2-11). Figure 1 shows the pattern of change in number of patients in the out-patient department and the in-patient department throughout the period of two years.

Analyzing average number of type of patients visiting the hospital per month, it was found that in out-patient settings major depressive disorder was the most common condition (32%), followed by schizophrenia spectrum disorders (17%), anxiety disorders (14%), headache (13%), alcohol use disorders (7%), bipolar mood disorders (7%), epilepsy (3%), childhood psychiatric disorders (2%) and other substance use disorders (2%). Whereas in in-patient settings alcohol use disorders were most common (29%), followed by schizophrenia spectrum disorders (28%), major depressive disorder (22%), bipolar mood disorder (7%), anxiety disorders (6%), other substance use disorder (3%) and epilepsy (2%).

Figure 2: Average Out-patients and In-patients with various clinical conditions per month.
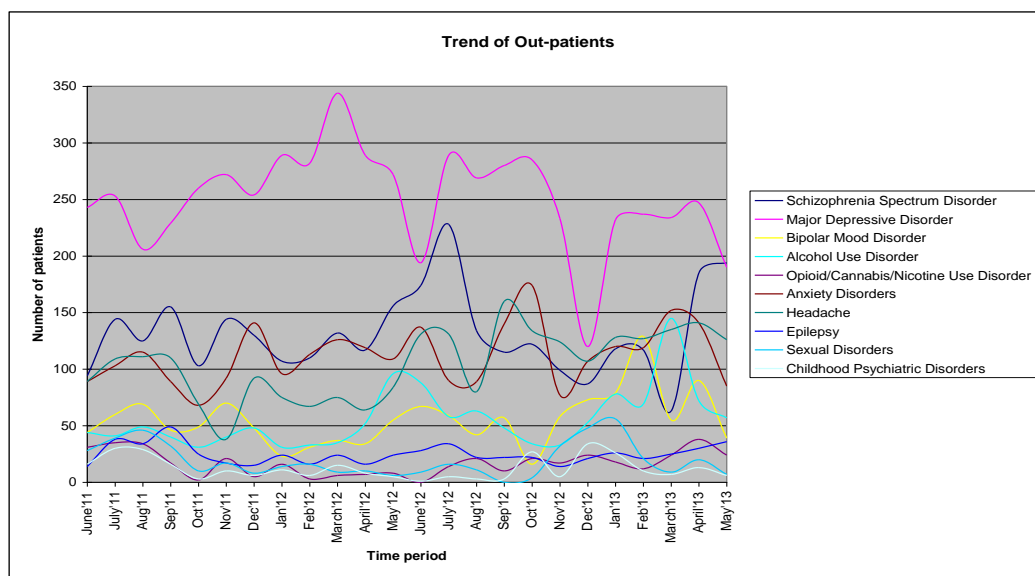

Figure 3 (a): Trend of out-patients with various clinical conditions over two years.
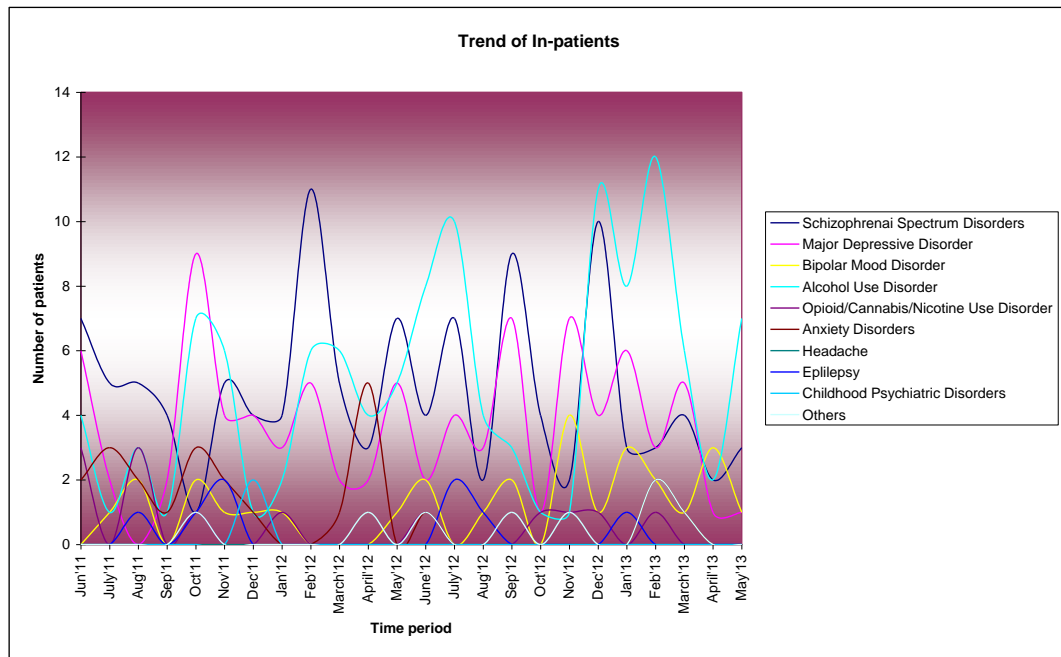
Figure 3 (b): Trend of in-patients with various clinical conditions over two years.

Figure 3 (a) & (b) analyzes the trend of variations in the frequency of various clinical conditions in the out-patient / in-patient settings over the period of two years. The graph helps to understand any annual / seasonal pattern for any clinical condition or its correlation with one another.
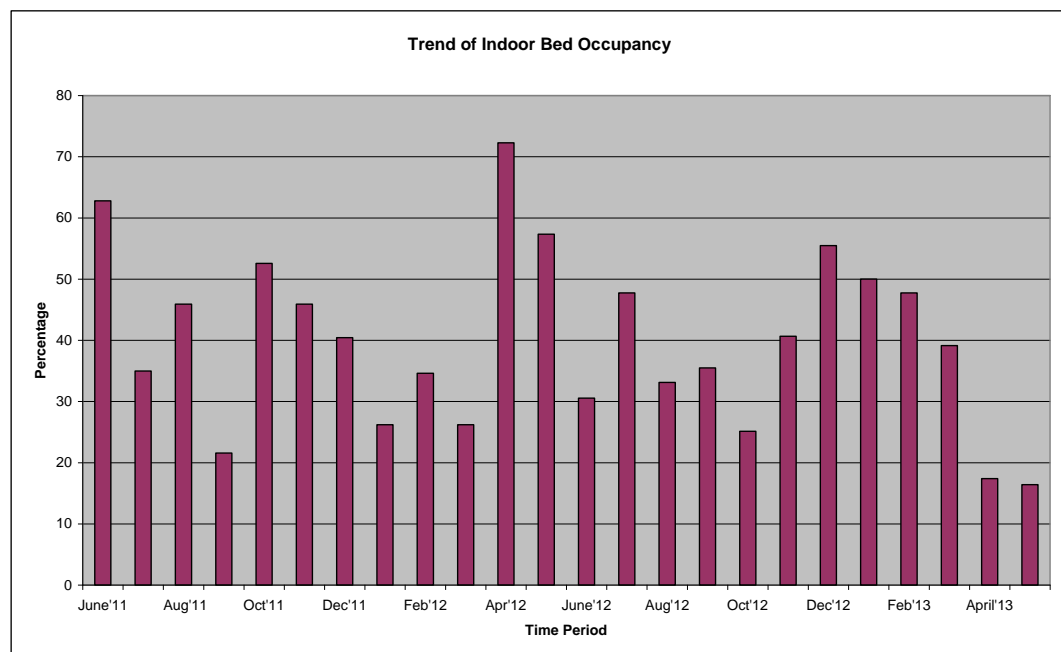
Figure 4: Trend of indoor bed occupancy.

Average bed occupancy was found to be 40% over the time span of two years ranging from 17% to 72% at different times of the year. During first year it was 43.39 which reduced to 36.56 during the second year (p<0.01).

DISCUSSION

Number of patients visiting the hospital may depend on numerous factors like incidence of illness in community, accessibility/affordability/popularity of health services and practice patterns, but a trend of average 31 per day of out-patients within a range of 25-38 shows a constant inflow of patients during anytime of the year without any seasonal/annual variations/patterns. But an average 6 per day of in-patients with a wide range of 2-11 shows that there are wide variations in the indoor admissions during the year. Comparing both the years, average indoor patients during the first year were 6.15 which reduced to 5.62 during the second year (p<0.01), which shows that there was a decrease in indoor admissions during successive year which can be due to factors like reduction in the popularity of services or better treatment outcomes requiring fewer admissions. Whereas there was a significant (p<0.01) increase in average out-patients from 28.60 during the first year 33.35 during the second year which can be due to factors like increased awareness or better services as the incidence rates are unlikely to change much within a short time span. Also, with the advent of newer and effective medicines and better treatment outcomes, psychiatric care is largely getting shifted from indoor hospital based to outdoor community based care, thus leading to decreased indoor admission and increased outdoor consultations.

The profile of patients shows that neurotic conditions like major depressive disorder (32%), anxiety disorders (14%) and headache (13%) were the most common presentation in out-patient department whereas alcohol use disorders (29%), psychotic conditions like schizophrenia spectrum disorders (28%) and major depressive disorders (22%) were more common in in-patient settings. The consultation patterns and management was in accordance with the epidemiological patterns and symptom profile wherein most of the neurotic conditions usually do not require indoor admissions (except major depressive disorder in this case) compared to alcohol use disorders requiring indoor admission for detoxification and psychotic conditions commonly presenting with behavioral problems / non-compliance. High prevalence of alcohol use disorders can also be associated with local socio-demographic and cultural scenario. Ancient literature from U.S. mentions schizophrenic reactions as the predominant admission diagnosis, alcoholic disorders the next and depressive reactions the least.[2] In one of the study from England, depression and anxiety were the most common reason for hospital admission, accounting for 29.6% of all admissions, schizophrenia and related psychoses accounted for 26.0% of admissions, substance misuse 19.1% and others 12.2%.[3] Previous epidemiological studies from India have found the most common disorders in community as affective disorders / anxiety neurosis, followed by alcohol use disorders, mental retardation, epilepsy and schizophrenia.[4,5]

The trend of patients with various clinical conditions over a period of two years revealed that in out-patient settings there were no annual / seasonal patterns (except possibly of schizophrenia spectrum disorders, which requires further extrapolation) and minimal variations (except for major depressive disorder). In in-patient settings most of the disorders had a cyclical / rhythmic pattern of increasing and decreasing numbers across the time span possibly an artifact due to small number of patients. Factors like seasonal patterns are observed in mood disorders, although in this study this trend was not found, possibly as patient consultations / admissions were influenced much more by other reasons like treatment seeking behaviors and health service related factors rather than natural patterns. Studies have shown a trend of increasing level of common mental disorders like anxiety and depression and a stable rate of psychotic disorders in community.[6]

Average bed occupancy shows wide variations during different times of the year possibly due to factors influencing health seeking behaviors of patients. There was no annual pattern of bed occupancy though. Compared to the first year, during second year bed occupancy was significantly reduced possibly due to factors like reduction in the popularity of services or better treatment outcomes requiring fewer admissions.

One of the limitations of the study is that finding about prevalence / patterns of psychiatric disorders may not be extrapolated to the community at large.

CONCLUSION

Major depressive disorder was the most common condition seen in out-patient department whereas alcohol uses disorder in the in-patient department. Least common condition seen in out-patient department was other substance use disorders and in in-patient department was headache. Out-patient consultations were consistent and increasing whereas in-patient admissions were fluctuating and decreasing with time. In out-patient settings, possible annual patterns of schizophrenia spectrum disorders and wide variations in major depressive disorder need to be studied further for possible reasons/associations. Average bed occupancy was 40%, with considerable variations during the year and a reducing trend.

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