

Sociodemographic Profile and Diagnostic Pattern of Psychiatric Patients Admitted Across One Year: Chart Review from Tertiary Care Hospital

Priyanka Sharma¹, Ashok Kumar², G D Koolwal³

¹Junior Resident, Department of Psychiatry, Dr. S.N. Medical College, Jodhpur.

²Assistant Professor, Department of Psychiatry, Dr. S.N. Medical College, Jodhpur.

³Professor, Department of Psychiatry, Dr. S.N. Medical College, Jodhpur.

Received: September 2019

Accepted: September 2019

Copyright: © the author(s), publisher. It is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Mental health problems contribute significantly to morbidity and mortality across the globe. The impact is more visible in developing countries where less than one in five individuals with psychiatric disorder receives any form of psychiatric help despite immense need. Most of the states in India lack data about the pattern of psychiatric services use in general population thus making it difficult to plan accordingly. The present study was carried out to understand the Sociodemographic profile of inpatient psychiatric services beneficiaries and pattern of psychiatric illnesses among them. **Methods:** Retrospectively one-year data of admitted patients from July 2017 to June 2018 were extracted manually from the patient files. **Results:** The study demonstrated that younger individuals were most common recipient of inpatient services followed by middle age patients. Males availed services more frequently and occupied more than 70% of beds at any given time. Schizophrenia (24.8) and bipolar disorders (23.7%) were most common diagnosis and represented almost half of the admitted patients. The other common diagnosis included unspecified psychosis (17.35%), substance use disorders (10.32%) and depressive disorders (4.1%) and dissociative disorders (2.18%). The other categories of diagnosis were barely represented including various childhood and geriatric psychiatric disorders despite the sizeable caseload in community settings. **Conclusion:** The Sociodemographic profile of psychiatric inpatients was similar to community settings where younger individuals were over represented. Among the patients male preponderance was observed which denotes social and cultural framework of community.

Keywords: Diagnostic pattern, Psychiatric admission, Sociodemographic profile.

INTRODUCTION

Psychiatric disorders are universal and contribute significantly to morbidity and mortality. As per United Nations report 13% of the global burden of disease in terms of disability adjusted life years (DALY) is contributed by mental illnesses.^[1] Low and middle-income countries have a higher burden of mental disorders than economically developed countries.^[2,3] As per the National Mental Health Survey 2016, around 150 Million people need psychiatric assistance in India.^[4] Mental health is a part of general health services and includes outpatient services, community outreach as well as inpatient services.

Inpatient services for psychiatric patients cater the multiple domains including diagnostic problem, unmanageability issue and respite for family. As

shown by Mihas et al. additional factors include social circumstances and stigma prevalent in the society.^[5] According to Bobier & Warwick Psychiatric inpatient care is often indicated when a patient can no longer be managed safely at home or as an outpatient, though it may be expensive, resource-intensive and may cause risk to hospital staff.^[6]

A prospective Saudi Arabian study of psychiatric admission over a decade revealed that schizophrenia (19.5%), bipolar disorders (15.2%), depressive disorders (9.9%), acute and transient psychotic disorders (ATPD) (8.6%), adjustment disorders (7.7%) and dissociative disorders (7.6%) were most common diagnosis.^[7] Another study from India unveiled that alcohol dependence was most common diagnosis for males (34%) and dissociative disorders among females (10.3%).^[8] A 3 year retrospective study from Nepal demonstrated that schizophrenia and related disorders (25.5%) followed by ATPD was most common diagnosis. The study revealed almost equal proportion of males and females.^[9] Rahman et al from Pakistan pointed out that mood

Name & Address of Corresponding Author

Dr. Ashok Kumar,
Assistant Professor,
Department of psychiatry,
Dr. S N Medical College,
Jodhpur.

disorders (42%) were most frequent diagnosis followed by schizophrenia and related disorders.^[10] An outpatient study from Bangladesh reported schizophrenia (24%) and depression as most prevalent diagnosis in individuals seeking psychiatric help.^[11] Another study from Arabian Kingdom discovered that schizophrenia (55.8%) distantly followed by mood disorders (35%) needed psychiatric admission services in tertiary care hospital.^[12]

Need for the current study

Despite the availability of literature from different developing countries, India bearing population of 1.3 Billion and 150 Million psychiatric patients was barely represented.^[4,13] Above all Northern and western states of India reported no study till date about the pattern of psychiatric admissions. In addition socio-demographic profile of inpatient psychiatric admissions was not known thus making it difficult for the policy makers to improve psychiatric services. Hence, this study was aimed to analyze the disease spectrum and patterns of psychiatric diseases along with socio-demographic profile among the patients admitted in tertiary care hospital from western state of Rajasthan.

MATERIALS AND METHODS

The study was conducted in a tertiary care hospital in western Rajasthan, which caters a population of around 12-15 millions.^[13] The department is independent with both outpatients and inpatients facilities providing psychiatric services over the last eight decades to five large districts of western Rajasthan.

We aimed to estimate proportion of various psychiatric disorders in inpatient psychiatric setting along with their socio demographic profile such as age, gender, education and marital status.

This was a retrospective observational type of study. Data were retrieved from casebooks of individuals admitted from July 2017 to June 2018. All relevant data were extracted manually including age, sex, ICD based diagnosis, marital status and education were investigated and noted. A total of 1977 patients availed inpatient psychiatric services in one year. The monthly patient profile was compiled, and data were presented in tables with the use of Statistical package for social sciences (SPSS) version 20.

Admissions were made through OPD, special clinics, accident and emergency department and referrals from other departments. All admitted patients received individual registration number and diagnosis according to ICD-10 system of classification by senior psychiatrists.

RESULTS

Among the 1977 patients, most were in the age group of 21–30 years (636 [32.17%]) and 31–40

years (514 [26.00%]) followed by 41-50 year age group which constituted 335 cases (16.94%). Very limited representation was observed from two extremes of age whereas elderly were 3.59 % (n=71) while no patient was admitted from pediatric age group. More than two thirds of the admitted patients were male (70.6 %) while females were just 29.84% thus making a male female ratio of 2.3:1.

Table 1: Age wise distribution of inpatients

Age (in years)	No. Of patients	Percentage
≤10	0	0.00
11-20	214	10.82
21-30	636	32.17
31-40	514	26.00
41-50	335	16.94
51-60	207	10.47
>60	71	3.59
Total	1977	100

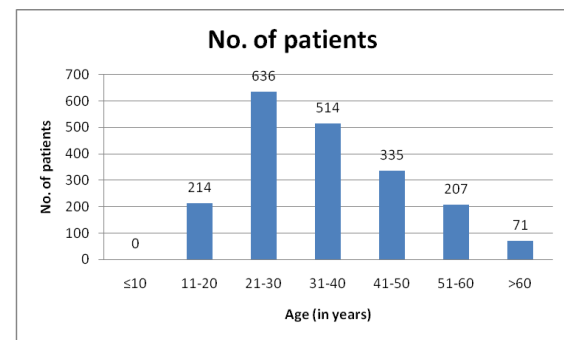


Figure 1: Age wise distribution of inpatients

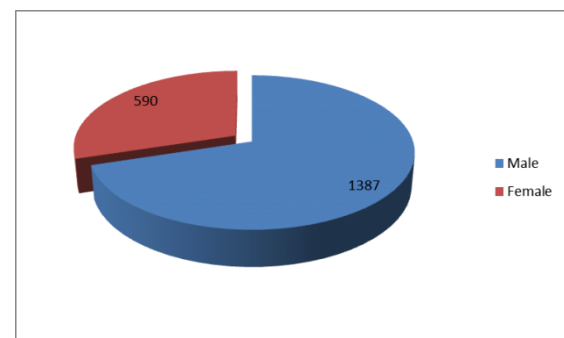


Figure 2: Gender Distribution

Schizophrenia [490 (24.79%)] was the most common psychiatric diagnosis followed by bipolar mania [(464) 23.7%]. Unspecified psychosis [343 (17.35%)], mental and behavioral disorders due to psychoactive substance abuse [204 (10.32%)], ATPD [195 (9.86%)], depressive disorders [122(6.17%)], dissociative disorders [43 (2.18%)], schizoaffective 29 (1.47%) and bipolar depression was found in 18 (0.91%) cases admitted in one year period. Some other disorders such as peripartum psychosis 15 (0.76%) obsessive-compulsive disorder(OCD) [14 (0.71%)], dementia [8 (0.40%)], intellectual disability [7 (0.35%)], bipolar hypomania [7 (3.5%)], extrapyramidal syndrome (EPS) [5 (0.25%)], somatoform disorder [4 (0.2%),

epilepsy [2(0.1%)], conduct disorder [1 (0.05%)], and generalized anxiety disorder(GAD) 9 [1(0.05%)] and 5 (.25%) received no diagnosis [Table 3].

Table 2: Pattern of different psychiatric diagnoses of admitted patients

Disease	Total	Percentage
Schizophrenia	490	24.79
BPAD-M	464	23.47
BPAD-M	18	0.19
Unspecified psychosis	343	17.35
Schizoaffective	29	1.47
Depressive disorders	122	6.17
ATPD	195	9.86
OCD	14	0.71
Dissociative disorder	43	2.18
Somatoform disorder	4	0.20
GAD	1	0.05
Bipolar hypomania	7	0.35
EPS	5	0.25
Mental retardation	7	0.35
Peripartum psychosis	15	0.76
Dementia	8	0.40
Conduct disorder	1	0.05
Mental and behavioural disorder due to psychoactive substance abuse	204	10.32
Epilepsy	2	0.10
Other	5	0.25
Total	1977	100.00

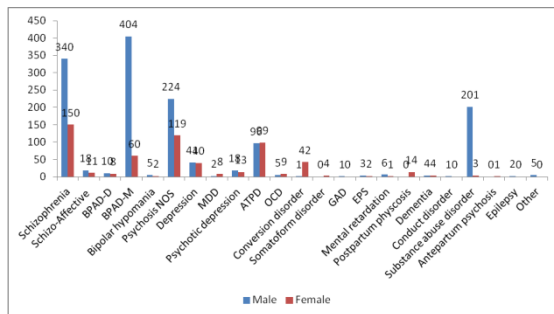


Figure 3: Psychiatric diagnostic groups according to gender

DISCUSSION

The present study was conducted among the patients who admitted in the psychiatry department of a tertiary care hospital. The study investigated demographic profiles and ICD-10 based diagnostic categories.^[14] All admissions in the department of psychiatry from July 2017 to June 2018 were reviewed. 1977 patients were admitted for various reasons including diagnostic dilemma, risk to self and others, socials and family issues among others. Majority of admitted patients were from younger age groups. Almost one third [636 (32.17%)] were in age range of 21-30 years while the 31-40 year age group comprised more than one in four (26%). The study results were concordant with Rahman et al,^[10] which reported more than 50 % patients in the age range of 15-44 years. Among females maximum admission were in 21-30 years age groups [184 (31.19%)] followed by 31-40 year group [151 (25.59%)] and

similar pattern was observed among male inpatients [21-30 years= 32.59% and 31-40 years- 26.17%]. These finding were similar to British Study by Thompson et al.^[15] and Haobam et al.^[8] in India.

The over representation of younger individuals among psychiatry inpatients may arise from the fact that the drainage area of hospital have higher proportion of younger individuals owing to higher birth rate and low death rate which is typical for country like India. In addition both schizophrenia and bipolar mania have onset during late adolescence and young adulthood thus attributing to the younger overall age of psychiatry inpatients. High proportion of younger individuals may also due to the fact that younger individuals are more prone to stress and have limited coping skills at their disposal as reported by Hocaoglu C et al. (2006) from Turkey.^[16]

More than 70% of the admitted patients were male. The study showed the male -female ratio was 2.35:1. The finding were supported by most national and international studies including Haobam et al. from India,^[8] Rahman et al.^[10] Minhas et al.^[5] and Malik et al from Pakistan,^[17] and Thompson et al from England,^[15] and Priest RG et al. from Ethiopia.^[18] Hirsch SR found that men use psychiatric services more often than females.^[19] However study results were in contrast with various studies reporting equal proportion of male and female patients.^[7,9,11] The difference in our predominance of males may be due to cultural differences as home treatments are more preferred for woman.^[5,15,17,20]

Schizophrenia (24.79%) was the major category for psychiatric admissions followed by bipolar mania (23.47%), unspecified psychosis (17.35%) and mental and behavioural disorders due to psychoactive substance abuse (10.32%). Similar findings were represented by earlier studies.^[7,9,11,12] While mood disorder were maximum in number in study by Rahman et al.,^[10] Sinan Tadesse et al. from Ethiopia.^[20] Mental and behavioral disorder due to psychoactive substance abuse was more in males. The data was supported by study done by Haobam et al.^[8] and Shah P et al.^[21] from India but was in contrast with Fahad et al. study from Saudi Arabia.^[12] Other interesting finding was that neurotic, stress related and somatoform disorders like GAD, phobic disorder, OCD, dissociative disorders and personality disorders were much less common compared to other disorders. The reason for such a difference may be due to the fact that such diseases are treated more frequently in outpatient settings and since the study focus on inpatients the number of patients with these diagnoses are less reported. Similar findings were depicted by another Indian study.^[8]

The number of single and unmarried patients in the study were 8.85% while the married patients comprised of 91.15%. This finding is in contrast to study by Rahman et al.^[10] This higher proportion of

married patients could be due to the trend of child marriages in Western Rajasthan and also due to the attached social and cultural differences that marriages are believed to be one of the treatment for Psychiatric illnesses and married patients improve more than patients who are single.^[10,20] In such areas once the individuals get married, the family act as strong social institution in preventing breakup of marriage. The results is in concordance with the study in Pakistan as only 0.85% patients were left by their partners and 0.20% (4 cases) patients were divorced.^[10]

70.40% of patients admitted were educated between 1 to 10th grade and were more likely improved than those patients who were either illiterate or educated 10th and above. This may be due to that more the patient is educated less counseling session will be given by Psychiatric counselors; while those who were illiterate might not listen carefully to counseling sessions and counselors that showed illiterate were at higher risk and slow in recovery.^[20,22,23]

CONCLUSION

This study showed that there is a huge diversity of mental disorders in Western Rajasthan. To improve the mental health services we need well-designed epidemiological and clinical research. Public education and awareness programs on mental disorders may be undertaken to reduce misconceptions.

Beyond the medical model of managing the psychiatric patients, psychiatric case management needs collaborative care of family, focused counseling approach based on patient educational background with enough periods by the psychiatrists and counselors.

Limitations of the Study

This study design is a retrospective chart review of data from a tertiary care hospital in Western Rajasthan. Interpretation of diagnosis patterns must be treated with caution as the cases were admitted on different grounds not exclusively patient needs and threat to self and others. Admission rate do not directly represent clinical need or morbidity differences, it represent only consumption of existing services. This could have altered are results could not be generalizable.

REFERENCES

1. Joint Publication of WHO, World Bank and Harvard School of Public Health Murray C, Lopez A, eds: The Global Burden of Diseases, Cambridge, USA. Harvard University Press 1996.
2. Bass JK, Bornemann TH, Burkey M, Chehil S, Chen L, Copeland JR, et al. A United Nations General Assembly Special Session for mental, neurological, and substance use disorders: The time has come. *PLoS Med* 2012;9:e1001159.
3. Hock RS, Or F, Kolappa K, Burkey MD, Surkan PJ, Eaton WW. A new resolution for global mental health. *Lancet* 2012;379:1367-8.
4. Gururaj G, Varghese M, Benegal V, Rao GN, Pathak K, Singh LK et al and NMHS collaborators group. National Mental Health Survey of India, 2015-16: Summary. Bengaluru, National Institute of Mental Health and Neuro Sciences, NIMHANS Publication No. 128, 2016.
5. Minhas FA, Farooq S, Rahman A, Hussain N, Mubbashir MH. In patient psychiatric morbidity in a tertiary care mental health facility: a study based on a psychiatric case register. *JCPSP* vol.11(4):
6. Bobier C, Warwick M. Factors associated with readmissions to adolescent psychiatric care. *Aust N Z J Psychiatry* 2005;3:600-6.
7. AbuMadini MS, Rahim SI. Psychiatric admission in a general hospital: Patients profile and patterns of service utilization over a decade. *Saudi Med J* 2002;23:44-50.
8. Haobam M, Senjam G, Ningombam H, Loitongbam N, Mohanty R. Pattern of psychiatric admission in Regional Institute of Medical Sciences (RIMS), Imphal. *J Med Soc* 2013;27:169-72.
9. Dhungana S, Chapagai M, Tulachan P, Ojha SP. Patterns of Psychiatric Illness over 3 years: A single Centre Inpatient Study From Nepal. *Journal of Psychiatrists' Association of Nepal*.;3(2):15-9.
10. ur Rahman R, Khan AG, Shahbaz NN. 10-YEAR PATTERN OF ADMISSIONS IN PSYCHIATRIC UNIT AT A TERTIARY CARE HOSPITAL IN PAKISTAN. *Mental*.; 10:F19.
11. Roy Biswas RS, Uddin MG, Mostafa. M.A 1-year disease profile of psychiatric patients visiting the outpatient department of a tertiary care hospital. *J Sci Soc* 2017;44:83-5.
12. Alosaimi Fahad D., Alzain Nasser, Asiri Saeed, Fallata Ebtihaj, Abal Hassan Mohammed, Qrmlil Abdulaziz et al . Patterns of psychiatric diagnoses in inpatient and outpatient psychiatric settings in Saudi Arabia. *Arch. Clin. Psychiatry (São Paulo)* [Internet]. 2017 June [cited 2018 Sep 15]; 44(3): 77-83.
13. Census 2011 Office of Registrar General and Censes committee New Delhi Govt. of India 2011.
14. The ICD -10 Classification of mental and Behavioural Disorders: Clinical descriptions and diagnostic guidelines. Geneva: World Health Organization; 1992.
15. Thompson A, Shaw M, Harrison G, Verne J, Ho D, Gunnell D. Patterns of hospital admission for adult psychiatric illness in England: Analysis of hospital episode statistics data. *Br J Psychiatry* 2004;185:334-41.
16. Hocaoglu C, Kandemir G, Tiryaki A, Muratoglu H, Ismail A. Evaluation of patients hospitalized at the psychiatry clinic of a training hospital over last four year in Turkey. *Pak J Med Sci* 2006 Vol 1; 60-63.
17. Malik SB, Bokhary Z. Psychiatric admissions in a teaching hospital: A profile of 177 patients. *JCPSPn* Vol. 9 (8): 359-61.
18. Priest RG, Fineberg N, Merson S, Kurian T. Length of stay of acute psychiatric inpatients: an exponential model. *Acta Psychiatr Scand*. 1995;92(4):315-7.
19. Hirsch SR. Psychiatric beds and resources: Factors influencing bed use and service planning. Report of a working party of the section for social and community Psychiatry of the Royal College of Psychiatrists. London; 1988: Gaskell Psychiatry Series.
20. Tadesse S, Gizaw AT, Abraha GK, Gebretsadik LA. Patterns of psychiatric admissions and predictors of patient's outcome in Jimma University Teaching and Referral Hospital: a retrospective study. *International journal of mental health systems*. 2017 Dec;11(1):41.
21. Shah P. Trend of psychiatric disorders among out-patients and in-patients of a tertiary care center of India. *Int J Res Med Sci*. 2014;2(2):439-44.

22. Kebede D, Alem A, Shibre T, Negash A, Fekadu A, Fekadu D, et al. Onset and clinical course of schizophrenia in Butajira-Ethiopia. *Soc Psychiatry Epidemiol.* 2003;38:625–31.
23. Atalay A. Mental health services and epidemiology of mental health problems in Ethiopia. *Ethiop Med J.* 2001;39(2):153.

How to cite this article: Sharma P, Kumar A, Koolwal GD. Sociodemographic Profile And Diagnostic Pattern Of Psychiatric Patients Admitted Across One Year: Chart Review From Tertiary Care Hospital. *Ann. Int. Med. Den. Res.* 2019; 5(6):PY01-PY05.

Source of Support: Nil, **Conflict of Interest:** None declared