

Characteristics of Patients Admitted to a Psychiatric Unit in a Tertiary Care Hospital, Northeast India: A 3 Year Retrospective Study

Dr. Nelson L¹, K. Shantibala ², Arambam Carol³

¹Assistant Professor, Department of Psychiatry, JNIMS

²Professor, Head of Department, Department of Psychiatry, JNIMS

³Senior Resident, Department of Psychiatry, JNIMS

Corresponding Author Email: [loracarambam75\[at\]gmail.com](mailto:loracarambam75[at]gmail.com)

Abstract: *In-patient care of psychiatric patient remains an important aspect in the care of mental and behavioural disorders. Some of the patients are very aggressive and they are risk of causing harm to self and to others, which remain unmanageable at home. Therefore, it is important to admit them and provide necessary care in tertiary hospital. The study of the pattern of psychiatric in-patient is therefore pertinent to determine the sociodemographic and clinical factors for mental health planning. It is aimed at determining the characteristics of in-patient admission in the psychiatric ward of tertiary care hospital in Northeast India over a period of 3 year. It is a retrospective case file analysis of all patients admitted between Jan 2022 to Dec 2024 in psychiatry ward of JNIMS, Imphal East. Total of seven hundred and eight patient was admitted and analysed. The majority of the patients were males (560 out of 708). The mean age of males was 38.65 years, while the mean age of the females was 28.02 years. The maximum number of patients is in the 30-39 age group which is 195 out of 708 (27.5%), followed by the 20-29 age group (160, which is 22.6%). Alcohol dependence syndrome (ADS) was found to be maximum with 418 out of 708 (59%) followed by depression (51 or 7.2%), then by dissociative order and ODS (48 or 6.8% and 45 or 6.4% respectively).*

Keywords: Psychiatric in-patient care, ADS (alcohol dependence syndrome), ODS (opioid dependence syndrome), tertiary mental health services, Northeast India

1. Introduction

Mental illness has become a major health issue all over the world. A subset of patients with severe mental illnesses require inpatient care, usually because of the severity of their disorder and an attendant risk of harm to themselves or those around them, or due to a failure of outpatient or community care.¹ The number of people with mental illness requiring care in general settings is increasing every year. Besides, there has been a tendency to neglect the care of mentally ill in general settings due to lack of knowledge on mental illness and its management among health professionals.² Admission of mentally ill patient has become important role as a part of management. Most of the psychiatric illnesses have a chronic relapsing course. It is estimated that the readmission rate for discharged patients is approximately 40-50% within one year of their discharge from hospital. In India, apart from the family support system there is very little community-care support provided by the mental health care service providers, both in the public and the private sectors.³ Most of the patient admitted in psychiatry ward have higher chance to relapse due to poor compliance on drugs, loss to follow up, care-giver burden or lack of family support. So proper follow up planning, psychoeducation and therapy are also essential. The provision of psychiatric services to general hospitals has been going on for a few decades now. With the shifting of psychiatric services from asylums to modern psychiatric units in general hospitals made easy approach in utilizing the psychiatric services. This has resulted in gradual de-stigmatization and increased public awareness regarding psychiatric services on one hand and increase burden on general hospital budget. Early identification and intervention

has been implicated to improve clinical and social outcomes in most of these disorders⁴. Still now maximum people are out of modern treatment facilities due to poor economic condition, prevailing superstition, stigma on mental patients and lack of education and knowledge about scientific method of treatment of mental illness.⁵ In our society psychiatric patient are being neglected because of stigma and they often refused for admission and to seek proper treatment. So, inpatient admission remains a vital role to make them aware and to manage them properly. At least 40 million individuals worldwide suffer from major psychiatric disorders like schizophrenia and dementia, according to the World Health Organization.⁶ Hospital utilization denotes the manner in which a certain community makes use of its hospital resources .

Aims and objectives:

- To determine the characteristics of in-patient admission in the psychiatric ward
- To assess the association between sociodemographic and clinical factors

2. Materials and Methods

The study was conducted at the Jawaharlal Nehru Institute of Medical sciences, Imphal, Manipur. The Jawaharlal Nehru Institute of Medical sciences has a total strength of over 573 beds with all major specialties. The Department of Psychiatry is an independent department which has facilities for providing psychiatric management to both outdoor and indoor patients and also de-addiction facilities. The Psychiatric unit of the hospital has 30 in-patient beds (15 each for both

genders). Adequate liaison services exist between the various clinical departments of the hospital (Internal Medicine, Surgery, Obstetrics and Gynecology, Orthopedics, Neurology, Urology, Plastic Surgery, Radiotherapy, ENT, Dermatology, Radiology and Laboratory etc).

A review of case notes of all patients admitted to the psychiatric ward of the hospital between Jan 2022 and Dec 2024 was carried out and information regarding socio-demographic characteristics (e.g. age, gender, domicile and diagnosis) was recorded on a Proforma designed by the authors.

The cases were reassessed using the International Classification of Diseases, 10 edition (ICD-10) criteria based on the clinical features documented and clinical diagnoses reassigned where necessary. Data were analyzed using the Statistical Package for Social Sciences, SPSS 21 for Windows. Cross tabulation, frequency statistics and chi square test were used for relationship between variables.

The inclusion criteria for this study were:

- 1) All patient of age above 10 years
- 2) Patients should fulfil the diagnostic criteria of ICD-10
- 3) Chart analysis and case record of the patient should be complete

3. Results and Observation

Table 1: Age group of study population

Age in Years	Frequency	Percent
10-19 years	74	10.5
20-29 years	160	22.6
30-39 years	195	27.5
40-49 years	152	21.5
50- above	127	17.9
Total	708	100.0

A total of 708 patients were admitted during the period. In the study, maximum number of patients is in the 30-39 age group which is 195 out of 708 (27.5%), followed by the 20-29 age group (160, which is 22.6%).

Table 2: Gender of study population

Sex	Frequency	Percent
Female	148	20.9
Male	560	79.1
Total	708	100.0

The majority of the patients were males (560 out of 708) followed by female (148/708).

Table 3: Duration of hospital stay

Duration of hospital stay	Frequency	Percent
1-7 days	358	50.6
8-14 days	310	43.8
15-30 days	39	5.5
>30 days	1	0.1
Total	708	100.0

The majority of the patient were admitted maximum for 1-7 days (358 out of 708, 50.6%) followed by 8-14 days (310 or 43.8%).

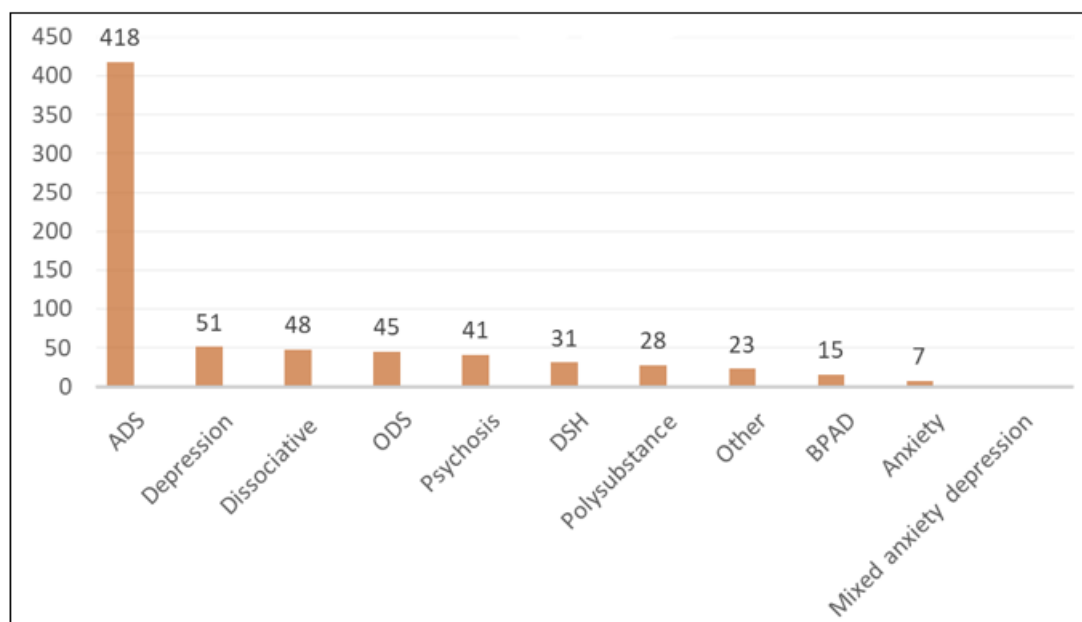


Figure 1: Showing the different diagnoses of admitted patients

According to the study, it was found that maximum admission are alcohol dependence syndrome (ADS) with 418 out of 708

(59%) followed by depression (51 or 7.2%), then dissociative disorder and ODS (48 or 6.8% and 45 or 6.4% respectively),

Psychosis 41(6.6%) deliberate self-harm 31(4%) , polysubstance 28(3.6%), other 23(3.2%), BPAD 15(2.4%), Anxiety 7(1.8%) and Mixed anxiety and depression 0.2%.

Table 4: Comparing sex with diagnosis

Diagnosis	Sex (n, %)		p-value
	Female	Male	
ADS	9 (2.2)	409 (97.8)	0.252
Anxiety Disorder	3 (42.9)	4 (57.1)	
BPAD	10 (66.7)	5 (33.3)	
Deliberate self-harm	21 (67.7)	10 (32.3)	
Depression	36 (70.6)	15 (29.4)	
Dissociative disorder	39 (81.3)	9 (18.8)	
Psychosis	19 (46.3)	22 (53.7)	
Mixed Anxiety with Depression	0 (0)	1(100)	
ODS	1 (2.2)	44(97.8)	
Others	10 (43.5)	13 (56.5)	
Polysubstance abuse	0 (0)	28(100)	

From table 4 it was found that in male ADS is maximum (97.8%) followed by ODS and polysubstance use disorder (97.8%) and 100% male respectively followed by Anxiety-Disorder (57.1%) and psychosis (53.7%).

In female Dissociative disorder is maximum (81.3%) followed by Depression (70.6%), DSH (67.7%), and BPAD (66.7%).

Here, the p-value is very small (<0.001), which states that there is a highly significant association between Diagnosis and gender.

Table 5: Association between Residence with diagnosis

Diagnosis	Residence (n, %)		p-value
	Urban	Rural	
ADS	210 (50.2)	208 (49.8)	0.252
Anxiety Disorder	0	7 (100)	
BPAD	9 (60)	6 (40)	
Deliberate self-harm	12 (38.7)	19 (61.3)	
Depression	29 (56.9)	22 (43.1)	
Dissociative disorder	27 (56.3)	21 (43.8)	
Psychosis	20 (48.8)	21 (51.2)	
Mixed Anxiety with Depression	1 (100)	0	
ODS	22 (48.9)	23 (51.1)	
Others	11 (47.8)	12 (52.2)	
Polysubstance abuse	16 (57.1)	12 (42.9)	
Total	357	351	

From table 5. It was found that in residence of urban ADS patients are more (50.2%), followed by BPAD (60%), polysubstance (57.1%) and followed by Depression (56.9%), Dissociative Disorder (56.3%). Whereas in residence of rural Anxiety- disorder are maximum (100%), followed by DSH (61.3%), Psychosis (51.2%), ODS (51.1%). It shows that, the p-value is 0.252 (>0.05), which states that residence and diagnosis are not significantly associated as it could be due to chance.

4. Discussion

There are five main findings we obtained from this study. Firstly, most of the patient admitted in the ward are in age group of 30-39 years. This finding is supported by a study conducted by Singh G et al⁸. Similarly, a study conducted by

Patil S et al⁹ also found that maximum patient admitted in psychiatric ward are in aged group of 31-39 years.

Secondly, more men than women were admitted to psychiatric beds. This finding is similar to a study conducted by Thomson A et al¹⁰. The similar finding of men dominance is also seen in earlier studies⁸⁻⁹.

Thirdly, the majority of the patient were admitted maximum for 1-7 days. This finding is supported by a study conducted by Khanna BC et al where majority of the patient stayed for 1-2 weeks and the median duration of hospital stay was 9 days.¹¹ The similar finding is also seen in earlier study¹⁰. This is also supported by a study conducted by Yyldz A et al which found that mean duration of hospital stay to be 9-11 days¹².

Fourthly, maximum patient admitted in psychiatric ward are diagnosed with Alcohol dependence syndrome. This finding is similar in earlier study conducted by Patil s et al which found that substance use disorder (21.9%) was the most prevalent psychiatric diagnosis⁹.

Another study conducted by Kens T et al found that substance abuse disorders are the most frequently observed patterns of psychiatric illness (77.63%)¹³.

And lastly, most of the patient admitted in the ward are residence of urban area. The similar finding is also seen in study conducted by Shafquat Waheed et al¹⁴. This is supported by earlier study conducted by Gagandeep Singh et al which he found that domicile of 48 (80%) patients was urban while 12 (20%) hailed from rural areas.⁸

5. Conclusion

Most of the patients admitted in psychiatry departments, JNIMS were young and males from urban area. Commonest diagnosis noted are ADS followed by Depression, Dissociation, ODS, Psychosis, DSH, Polysubstance, BPAD, Anxiety and Mixed anxiety and depression. The abundance of alcohol related disorders in the state may have important implications for care and planning in the community. Increase public awareness regarding the impact of alcohol on physical hazards and mental hazards must be needed in the state.

References

- [1] Gautham MS, Gururaj G, Varghese M, Benegal V, Rao GN, Kokane A, et al. The National Mental Health Survey of India (2016): Prevalence, socio-demographic correlates and treatment gap of mental morbidity. *Int J Soc Psychiatry* 2020; 66: 361-72.
- [2] Pelzang R. The pattern of psychiatric admissions in a referral hospital, Bhutan. *WHO South East Asia J Public Health* 2012; 1: 52-8.
- [3] Vasudeva S, Narendra Kumar MS, Sekhar KC. Duration of first admission and its relation to the readmission rate in a psychiatry hospital. *Indian J Psychiatry* 2009; 51: 280-4.
- [4] Rahman, Raza ur; Ghani Khan, Abdul; and Shahbaz, Naila Naerm (2016) "10-year pattern of admissions in psychiatric unit at a tertiary care hospital in pakistan.,"

Pakistan Journal of Neurological Sciences (PJNS):
Vol. 11: Iss. 2, Article 11.

- [5] Fahmida A, Wahab MA, Rahman MM. Pattern of psychiatric morbidity among the patients admitted in a private psychiatric clinic. Bangladesh J Med Sci. 2009; 8(1-2): 23-8.
- [6] Afroz S, Mahmud A, and Hasan M. 2023. "Pattern of Psychiatric Admissions in Private Psychiatric Hospitals in Chattogram". IAHS Medical Journal 5 (2):38-41.
- [7] Sakharhar BM, editor. Hospital Utilization Statistics. Principles of Hospital Administration and Planning. 1st ed. New Delhi: Jaypee Brothers; 1998. pp. 240-5
- [8] Singh G, Chaudhury S, Saldanha D, Singh V, Marella S, Vhora R. Psychiatric emergency referrals in a tertiary care hospital. Med J DY Patil Vidyapeeth 2018; 11: 312-7.
- [9] Patil S, Madhavrao N et al. Patterns and prevalence of psychiatric illnesses presenting to the emergency department. Archives of Psychiatry and Psychotherapy. (2019). 21. 59-64. 10.12740/APP/100658.
- [10] Thomson A, Shaw M, Harrison G, Verne J, Ho D and Gunnel D. Patterns of hospital admission for adult psychiatric illness in England: Analysis of hospital episode statistics data. Br J Psychiatry 2004; 185:334-341.
- [11] Khanna BC, Wig NN, Varma VK. General hospital psychiatric clinic: An epidemiological study. Indian J Psychiatry. 1974; 16:211-20.
- [12] Yyldz A, Onur E, Turgut K, Tunca Z. Factors affecting duration of hospital stay or the psychiatric patients at an urban university hospital. Bull Clin Psych 2003;13: 122-8.
- [13] Kena T, Bagra I, et al. Patterns of Psychiatric Illness in a Tertiary Care Centre of Arunachal Pradesh: An Observational Study. Maedica (Bucur). 2022 Sep;17(3):628-635.
- [14] Waheed S et al. Psychiatric patients at general hospital emergency departments. Bang J Psychiatry 2017;31(1): 7-14.