Original Article

IAHS Medical Journal
Volume 07 Issue 02 December 2024; 100-104

Pattern of Psychiatric Diseases Treated in Psychiatry Department of Combined Military Hospital, Chattogram

Mohammod Gias Uddin Chowdhury[1*] S M Suhrawardy[2]
A S M Kowser[3] Shahana Begum[4]

ABSTRACT

Background: *Psychiatric disorders constitute a higher burden on low and middle-income countries like Bangladesh. Data of psychiatric diseases are poorly recorded and not easily available in countries like Bangladesh. Moreover, different psychiatric diseases are related to various occupations and patients get treatment from service related hospital like Combind Military Hospital (CMH). The objective of the present study is to evaluate the pattern of different psychiatric diseases treated in a tertiary level hospital.*

Materials and methods: *This is a cross sectional type of descriptive study. It was carried out on 379 patients who were treated in Psychiatry Department of CMH, Chattogram. Data of psychiatric patients treated from 1st November 2020 to 31st October 2021 were explored. The diagnoses of different diseases were collected and data were analyzed. Ethical permission was taken prior data collection.*

Results: *Among 379 patients studied, females were 168(44.3%) and males were 211(55.7%), female to male ratio was 0.79:1. Age group distributions showed in both sex psychiatric disorder was highest among 31-40 years age group i.e. 129(34%) , in female maximum patients were 21-30 years age group 66(39.3%) and in male maximum patients were 31-40 years age group 70(33.2%). Monthwise distributions of the patients treated revealed January 6(1.6%), February 6(1.6%), March 3(0.8%), April 33(8.7%), May 34(9.0%), June 72(19%), July 71(18.7%), August 80(21.1%), September 41(10.8%), October 7(1.8%), November 18(4.7.0%) and December 8(2.10%). Most of the patients were treated in June (19%), July (18.7%) & August (21.1%). Common psychiatric findings were Generalized Anxiety Disorder 130(34.30%), Manic Depressive Disorder 59(15.56%), Obsessive Compulsive Disorder 44(12.44%), Bi Mood Disorder 42(11.08%) and Schizophrenia 35 (9.78%), Autism Spectrum Disorder 12(3.58%). GAD 75(44.6%) and OCD 22(13.1%) were commonly observed pattern of psychiatric finding in female. In male common findings were GAD 55(27.5%) and MDD 40(19.8%). Associated findings found in the psychiatric disordered patients were Diabetes Mellitus 75(19.78%), Hypertension 68(17.94%), Headache 65(17.15%), Hypothyroidism 35(9.23%) and Hyperlipidemia 30 (7.91%).*

Conclusion: *There are various types of Psychiatric Disorders treated in psychiatry department in different age group associated with various comorbid diseases needs special care and attention from the physicians for better outcome.*

Key words: BMD(Bi Mod Disorder); CMH (Combined Military Hospital); GAD (Generalized anxiety disorder); MDD (Manic Depressive Disorder); OCD (Obsessive Compulsive Disorder); ODD (Obsessive Depressive Disorder); SRD (Substance Related Disorder).

1. Assistant Professor of Medicine
Army Medical College, Chattogram.
2. Professor of Physiology
Army Medical College, Chattogram.
3. Professor of Psychiatry
Army Medical College, Chattogram.
4. Medical Officer (Former)
City Corporation Bandartila Maternity Hospital
Chattogram City Corporation.

*Correspondence : **Dr. Mohammod Gias Uddin Chowdhury**
Cell : +88 01815 50 04 58
Email : drgias77arian@gmail.com

Date of Submission : 20th November 2024
Date of Acceptance : 18th December 2024

Introduction

Mental disorders constitute a major public health problem and contribute to 13% of the global burden of disease measured as disability-adjusted life years.[1] One study has found that the prevalence of depression (57.9%), stress (59.7%) and anxiety (33.7%) symptoms in the adult population is now much higher than pre-pandemic rates.[2] Another study found that 28.5%, 33.3% and 46.92% of home quarantined students had stress, anxiety and depressive symptoms respectively.[3] Despite the well-structured three-tier healthcare delivery system in Bangladesh, a lack of qualified mental healthcare professionals and limited logistics support lead to a discrepancy in meeting the mental healthcare needs of the population.[4,5] Low and middle-income countries have a higher burden of mental disorders than economically developed countries.[6] In a prevalence study of psychiatric disorder amongst the French

IAHS Medical Journal
Volume 07 Issue 02 December 2024; 100-104

population reported, 46% of the study population was reported to have had experienced at least one mental disorder in their lifetime.[7] Lifetime prevalence of major depression was 26.5% and that for anxiety disorder was 30%.[7] The prevalence of significant depressive symptoms in community-dwelling elderly individuals ranged from 11 to 44%, with an average of about 20%.[8] As there is limited documentation of the burden of psychiatric diseases and challenges in improving mental healthcare, there has been very few studies regarding psychiatric diseases pattern who are treated in tertiary level hospitals. So this study will reflect different psychiatric diseases i.e. Anxiety, Depression. Mania, Schizophrenia, Bipolar Disease, Substance Misuse etc. and age-sex variation and male-female ratio, diseases pattern in different ranks of service holder and whether there is any seasonal variation of psychiatric diseases that will explore current situation of psychiatric diseases among the patients treated in Psychiatry Department of CMH, Chattogram, considering wider sociocultural context, be reflection of psychiatric health status of Bangladesh.

Materials and methods

This cross sectional type of descriptive study that was carried out on 379 patients in Psychiatry Department of Combined Military Hospital (CMH) Chattogram Cantonment. Duration of the study was one year from 1st November 2020 to 31st October 2021. Data of patients who were treated in indoor, outdoor and emergency department of the Psychiatry Ward in Combined Military Hospital, Chattogram were collected. All the patients having psychiatric diseases who were 12 year and above were included but who were below 12 years of age and unconscious patients were excluded from study.

Purposive type of non-probability sampling had done to select the sample from the population. A semi structured data collection form was prepared in English according to the objectives and variables of the study. At first it was conceptualized from relevant literature review. Then it was edited and corrected after getting instructions from research experts. Pretesting was done on 10 patients outside CMH, for the purpose of checking the validity, reliability and acceptability of the data collection form. It was finalized after necessary modifications based on findings of pretesting.

Patients recruited were treated in indoor, outdoor and Emergency Department of the Psychiatry Ward in CMH, Chattogram. All relevant information for each individual study subject were recorded on a pre-tested data collection form. The collected data were organized and coded manually for omission and inconsistency, then put into the master sheet. Data were processed by statistical procedures like tally, frequency, percentage, etc. The result was presented by tables and figures according to objectives of the study. Incomplete and incorrect data were excluded. For quality control and quality assurance, data collection form were frequently checked, noted very carefully and systematically, the privacy of the respondents were strictly maintained, the data were collected in forms directly by researcher. For ethical consideration, permission were taken from authority of Combined Military Hospital, Chattogram, confidentiality was maintained. It was assured that all the information would be used only for academic purpose and would remain confidential. There would be no harm to the respondents by this study.

Results

Total psychiatric patients in the study were 379.

Table I Distribution of Gender (n=379)

Gender	Number	Percentage (%)
Female	168	44.3
Male	211	55.7
Total	379	100.0

Table I reflects that female was 168 (44.3%) and male was 211 (55.7%) and female to male ratio was 0.79:1

Table II Age group of the respondent patients (n=379)

Age Group	Total		Female		Male	
	Count	% Within Both Sex	Count	% Within Female Sex	Count	% Within Male Sex
<20 years	53	14.0	21	12.5	32	15.2
21-30 years	125	33.0	66	39.3	59	28.0
31-40 years	129	34.0	59	35.1	70	33.2
41-50 years	45	11.9	17	10.1	28	13.3
51-60 years	24	6.3	5	3.0	19	9.0
>60 years	3	0.8	0	0.0	3	1.4
Total	379	100.0	168	44.3	211	55.7

Age group distributions reflect that burden of psychiatric disorder was highest in both sex in 31-40 years age group 129 (34%), 70(33.2%) in male group and 66(39.3%) in females group respectively.

IAHS Medical Journal
Volume 07 Issue 02 December 2024; 100-104

Table III Monthly distributions of psychiatric disorders (n=379)

Month	Female No.	Female % In Female Group	Male No.	Male % In Male Group	Total No.	Total % Within Both Male and Female
January	0	0.0	6	2.8	6	1.6
February	0	0.0	6	2.8	6	1.6
March	0	0.0	3	1.4	3	0.8
April	14	8.3	19	9.0	33	8.7
May	15	8.9	19	9.0	34	9.0
June	33	19.6	39	18.5	72	19.0
July	37	22.0	34	16.1	71	18.7
August	42	25.0	38	18.0	80	21.1
September	26	15.5	15	7.1	41	10.8
October	0	0.0	7	3.3	7	1.8
November	1	0.6	17	8.1	18	4.7
December	0	0.0	8	3.8	8	2.1
Total	168	44.3	211	53.7	379	100.0

It disclosed, in August, 42 (25%) female patients were enrolled and in June, 39 (18.5%) male patients were attended for treatment.

Table IV Pattern of psychiatric disorders among the respondents (n=379)

Psychiatric Illness Type	Female (n=168) No. (%)	Male(n=211) No. (%)	Total (n=379) No. (%)
Generalized Anxiety Disorder (GAD)	75(44.6)	55(27.5)	130(34.30)
Manic Depressive Disorder (MDD)	19(11.2)	40(19.8)	59(15.56)
Obsessive Compulsive Disorder (OCD)	22(13.1)	20(9.4)	44(12.44)
Bi Mood Disorder (BMD)	12(7.2)	30(14.3)	42(11.08)
Schizophrenia	15(9)	20(8.6)	35(9.78)
Autism Spectrum Disorder	3 (1.8)	9(4.5)	12(3.58)
Other	22(13.1)	37(15.9)	57(13.26)

Common observed pattern of psychiatric findings in female were GAD 75(44.6%) and OCD 22(13.1%). In male common findings were GAD 55(27.5%) and MDD 40(19.8%)

Table V Co-morbidities of the Psychiatric patients (n=379)

Extra-Psychiatric Disorders	Frequency (No.)	Percentage (%)
Diabetes Mellitus	75	19.78
Hypertension	68	17.94
Headache	65	17.15
Hypothyroidism	35	9.23
Hyperlipidemia	30	7.91
HTN + DM	35	9.23
No associated findings	71	18.73
Total	379	100

Table V shows that Diabetes Mellitus 75(19.78%) & Hypertension 68(17.94%) were the most common associated co-morbidities among the psychiatric patients.

Discussion

Among all patients, most were in adult age groups, It was revealed that <20 years was 53(14%), 21-30 years was 125(33%), 31- 40 years was 129 (34%), 41-50 years was 45(11.9%), 51-60 years was 24(6.3%),> 60 years was 3(0.8%). Study shows burden of psychiatric disorder was highest in 21-30 years age group among the female respondents 66(39.3%) and in 31-40 years age group among male 70(33.2%). The earliest preliminary study conducted in urban setting back in 2015 reported that adults aged 30-40 years had the highest prevalence of acute mental illness (33.7%), compared to young adults aged 20-30 years (28.1%) and aged 50 and older (15.0%).[9]

In this study, the majority of the patients were male 211(55.7%) and female were 168(44.3%) and female to male ratio was 0.79: 1. A general practice urban setting revealed that prevalence of mental illness in the past year was more common among male than female and more common among the adult than the old. As of 2011, around 27 percent of male reported some type of mental illness in the past year, compared to 18 percent of females. Common forms of mental illness include depression, anxiety disorders and mood disorders. An urban community-based study reported an overall prevalence of mental disorders among 12.2% respondents but more males than females were affected (13.9% vs10.2%).[10]

In this study highest number of patients were treated in August (21.1%) followed by in June (19%) and in July (18.7%). This showed a seasonal variation of psychiatric disorders with maximum patients treated during summer. Seasonal variation in the prevalence of psychiatric disorders in general population surveys had noted.

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) both onsets of symptoms and relapses of psychiatric disorders may exhibit a seasonal pattern, which has been acknowledged as a specifier in the diagnostic criteria.[11] Previous studies based on health service utilization have shown that hospital admissions of psychiatric disorder mostly peak in spring or summer season with some exceptions.[12]

The common sufferer found in this study were General Anxiety Disorder (GAD) 130(34.30%), Manic Depressive Disorder (MDD) 59(15.56%) Obsessive Compulsive Disorder (OCD) 44(12.44%), Bi-Mood Disorder (BMD) 42(11.08%) and Schizophrenia 35(9.78%) Autism Spectrum Disorder (ASD) 12(3.58%).

IAHS Medical Journal
Volume 07 Issue 02 December 2024; 100-104

Female were predominant in Generalized Anxiety Disorder 75(44.6%) and male were in Manic Depressive Disorder 40(19.8%) and in Generalized Anxiety Disorder 55(27.5%). A rural community based study showed an overall prevalence of psychiatric disorders as 16.5%, notably, half of the sufferers had anxiety disorders (8%) and one third had depressive disorders (5%).[13] On the other hand, another study on females in a rural setting reported that 16.4% had mental disorders with depression being the single most common disorder (8.9%).[14] The first national survey on mental health conducted between 2003 and2005 documented that 16.1% of the adult population had mental disorders and the prevalence was higher in men than women.[15] A community based rural study reported 3.6% psychiatric disorders and 2.9% both psychiatric and physical disorders with depression and anxiety being the most common condition.[13]

In the study Diabetis Mellitus was the common associated medical finding among the respondent that is 75(19.78%).Others associated findings were hypertension 68 (17.94%) headache 65(17.15%), hypothyroidism 35(9.23%) and hyperlipidemia 30(7.91%). A study in rural population concluded that newly diagnosed diabetic patients were four times more likely to have depressive symptoms than those without diabetes and males were more vulnerable than females.[16] Another study conducted in South India showed the prevalence of psychiatric disorder was 25% among the hypertensive participants and 29.3% in diabetic participants.[17]

Conclusion

Mental wellbeing is an essential component of maintaining the quality of life of an individual. The present study was designed to evaluate the pattern of psychiatric disorders warranting at a tertiary level hospital, Combined Military Hospital, Chattogram. In this study, a diversity of mental disordered patients have been found that may be ultimate reflection of the pattern of psychiatric diseases of Bangladesh. To improve the mental health services need well designed institutional based clinical research on psychiatric diseases. Public health education and awareness programs about psychiatric diseases should be undertaken to reduce misconceptions and for extreme upgrade and development of health system of the country.

Recommendation

Further community based research should incorporate clinical profile, pathways to care, attitude of patients and families towards psychiatric illness, treatments burden and morbidity and mortality in psychiatric diseases. Improvement of the availability of mental health care at community /primary levels and institutional referral, and increasing the number of psychiatric care providers at higher level of health care are needed.

Disclosure

All the authors declared no competing in interests.

References

1. Mathers C, Fat DM, Boerma JT: The global burden of disease: 2004 update. Geneva: WHO press. 2008.

2. Banna MHA, Sayeed A, Kundu S, Christopher E, Hasan MT, Begum MR, et al The impact of the COVID-19 pandemic on the mental health of the adult population in Bangladesh: A nationwide cross-sectional study. Int J Environ Health Res [Epub ahead of print] 2020. https://doi.org/10.1080/09603123.2020.1802409 .

3. Khan A H, Sultana M S, Hossain S, Hasan M T, Ahmed H U & Sikder M T. The Impact of COVID-19 Pandemic on Mental Health & Wellbeing among Home-Quarantined Bangladeshi students: A Cross-Sectional Pilot Study. Journal of Affective Disorders. 2020;12(12):121-128,277. https://doi.org/10.1016/j.jad.2020.07.135.

4. Alam D, Robinson H, Kanungo A, Hossain MD, Hassan M. Health Systems Preparedness for Responding to the Growing Burden of Non-Communicable Disease – A Case Study of Bangladesh (Working Paper 25, Health Health Policy & HealthFinance Hub). University of Melbourne/Nossal Institute for Global Health. 2013. https://www.researchgate.net/publication/262451665.

5. World Health Organization. Bangladesh WHO Special Initiative for Mental Health Situational Assessment. WHO.2020. https://cdn.who.int/media/docs/default-source/mental-health/specialinitiative/ who-special-initiative-country-report—Bangladesh—2020_f746e0ca-8099-4d00-b126-fa338a06ca6e.pdf? sfvrsn=c2122a0e_7.

6. Bass JK, Bornemann TH, Burkey M, Chehil S, Chen L, Copeland JRM, Eaton WW, Ganju V, Hayward E, Hock RS, Kidwai R, Kolappa K, Lee PT, Minas H, Or F, Raviola GJ, Saraceno B, Patel V: A United Nations General Assembly Special Session for Mental, Neurological and Substance Use Disorders: The Time Has Come. PLoS Med. 2012;9(1):e1001159.

7. Ritchie K, Artero A, Beluche I, Ancelin ML, Mann A, Dupuy AM, et al. Prevalence of DSM-IV psychiatric disorder in the French elderly population. Br J Psychiatry. 2004;184:147–152.

8. Blazer D. Depression in late life. 2nd ed. St. Louis: Mosby Yearbook. 1993.

IAHS Medical Journal
Volume 07 Issue 02 December 2024; 100-104

9. GBD 2015 Mortality and Causes of Death, Collaborators. (8 October 2016). Global, regional, and national life expectancy, all-cause mortality and cause-specific mortality for 249 causes of death, 1980–2015: A systematic analysis for the Global Burden of Disease Study. Lancet. 2015;388 (10053): 1459–1544.

10. Chowdhury AK, Salim M, Sakeb N. Some aspects of psychiatric morbidity in the out-patient population of a general hospital. Bangladesh Med Res Counc Bull 1975;1:51-59.

11. Alam MN. Psychiatric morbidity in general practice. Bangladesh Med Res Counc Bull. 1978;4:38-42.

12. Geoffroy PA, Bellivier F, Scott J, Etain B. Seasonality and bipolar disorder: A systematic review, from admission rates to seasonality of symptoms. J Affect Disord. 2013.

13. Medici CR, Vestergaard CH, Hadzi-Pavlovic D, Munk-Jørgensen P, Parker G. Seasonal variations in hospital admissions for mania: Examining for associations with weather variables over time. J Affect Disord. 2016;205:81–86.

14. Islam MM, Ali M, Ferroni P, Underwood P, Alam MF. Prevalence of psychiatric disorders in an urban community in Bangladesh Gen Hosp Psychiatry. 2003;25:353-357.

15. Karim E, Alam MF, Rahman AH, Hussain AA, Uddin MJ, Firoz AH. Prevalence of mental illness in the community. TAJ. 2006;19:18-23.

16. Kulkarni V, Chinnakali P, Kanchan T, Rao A, Shenoy M, Papanna MK. Psychiatric Co-morbidities among patients with select non-communicable diseases in a coastal city of South India. Int J Prev Med. 2014;5:1139–145.

17. Singh GP, Chavan BS, Arun P, Lobraj, Sidana A. Geriatric out-patients with psychiatric illnesses in a teaching hospital setting : A retrospective study. Indian J Psychiatry. 2004;46:140-143.