# Pattern of psychiatric referrals in a tertiary care hospital in Bangladesh

# Muhammad Enayeth Karim,<sup>1</sup> Zeenat Parvin Ruhie,<sup>2</sup> Md Sultan E Monzur,<sup>3</sup> Keya Das,<sup>4</sup> Abdullah All Mamun,<sup>5</sup> Olita Begum<sup>6</sup>

<sup>1</sup>Assistant Professor, Department of Psychiatry, Jalalabad Ragib Rabeya Medical College, Sylhet, Bangladesh; <sup>2</sup>Outdoor Medical Officer, Department of Medicine, Jalalabad Ragib Rabeya Medical College Hospital (JRRMCH), Sylhet, Bangladesh; <sup>3</sup>Assistant Professor, Department of Psychiatry, North Bengal Medical College, Sirajganj, Bangladesh; <sup>4</sup>Indoor Medical Officer, Department of Psychiatry, JRRMCH, Sylhet, Bangladesh; <sup>6</sup>Registrar, Department of Psychiatry, JRRMCH, Sylhet, Bangladesh; <sup>6</sup>Registrar, Department of Psychiatry, JRRMCH, Sylhet, Bangladesh.

#### Article info

Received	: 15 Apr 2020	
Accepted	: 17 Jun 2020	
Number of tabs	: 04	
Number of figs	: 00	
Number of refs	: 25	

## Correspondence

Muhammad Enayeth Karim Mobile: +8801711366117 E-mail: enayethkarim@yahoo.com

## Summary

The psychiatric referral rates in Bangladesh are very low, considering the higher rates of psychiatric morbidity in patients who attend various departments of a hospital. The aim of the study was to know the reason and pattern of psychiatric referrals attending in a tertiary care hospital in Bangladesh. This was a descriptive cross-sectional study conducted in a tertiary care hospital, namely Jalalabad Ragib Rabeya Medical College Hospital (JRRMCH). A total of 631 admitted patients were included consecutively who were referred for psychiatric opinion from other departments of the hospital over a period of one year from January 2019 to December 2019. Data were collected through face-to-face interview using the semi structured questionnaire containing socio-demographic profile, referring departments and reasons for referral. The psychiatric disorders were diagnosed according to diagnostic and statistical manual of mental disorders 5 (DSM 5) criteria and recorded after ensuring confidentiality of the patients and then data were analyzed by using descriptive statistical methods. The results showed that, majority of the patients were female comprising 442 (70.05%) and most of the psychiatric referrals (70.21%) were from the department of medicine and the most common reason for referral was medically unexplained somatic complaints (39.14%), followed by anxiety disorder (13.01%) and acute psychosis (6.51%). The most commonly diagnosed psychiatric disorders were conversion disorder (26.94%) followed by somatic symptom disorders (17.27%), generalized anxiety disorders (16.48%) and major depressive disorder (6.66%). So, encouraging multidisciplinary interaction is needed for the better psychiatric management of patients who usually attend general hospitals.

#### Bang J Psychiatry 2021;35(1): 10-14

#### Introduction

Consultation liaison psychiatry is the study, practice and teaching of the relation between medical and psychiatric disorders. In consultation liaison psychiatry, psychiatrists serve as consultant to medical colleagues (either another psychiatrists or more commonly non psychiatric physician) or to other mental health professionals (psychologist, social worker or psychiatric nurse). In what is now Bangladesh, there were no mental health facilities until 1947, when India was divided. In that situation the government (of what was then East Pakistan) decided to establish a mental hospital and in 1957 one was opened in Pabna. In 1974 Dhaka Medical College introduced a mental health service.<sup>1</sup> This was the first general hospital psychiatry unit in Bangladesh. Whereas the first General Hospital Psychiatry Unit (GHPU) in India was started at RG Kar Medical College and Hospital, Calcutta, India, in 1933.<sup>2</sup> At present, all of government medical college hospitals and most of non-government medical college hospitals in Bangladesh provide psychiatric services, both out-patient and inpatient. Among the non-government medical college hospitals, Jalalabad Ragib Rabeya Medical College hospitals (JRRMCH) was one of them, situated in divisional head quarter of Sylhet division of Bangladesh, where psychiatric unit started in April 2005.

The number and the roles of psychiatric units in general hospitals have been growing rapidly in recent years thus resulting in a greater interaction among psychiatrists, physicians and other specialists.<sup>3</sup> Currently, the consultation-liaison services in Bangladesh follow the consultation model, where in a psychiatrist

evaluates and manages the patient who is referred from other department. General-hospital psychiatry presents broad opportunities for service delivery, education and research.<sup>3</sup> Most or all the basic components of a community mental health center can be found within a general hospital and as psychiatrists move back into the mainstream of medicine, the general hospital takes on added value. Training advantages include the exposure of medical students and primary care residents and physicians to mental disorders and its impact on families as well as the interaction between psychiatric and non-psychiatric trainees at various levels.

The most common psychiatric diagnosis among referred patients who were reported in the different studies varied, depending on the set up. Studies on inpatient referrals have found neurotic, stress related and somatoform disorders to be the most common diagnosis. Most of the studies have included small samples and they have focused on a subset of psychiatric referrals. There is also a lack of studies which have focused on consultationliaison psychiatry in Bangladesh. With this background, a study of psychiatric referrals was conducted, with the aim of assessing the profile of referred patients, source of referral, reason for referral and the psychiatric diagnoses.

#### Materials and methods

This was a descriptive cross sectional study, conducted in a multi-specialty teaching cum tertiary care hospital, named Jalalabad Ragib Rabeya Medical College Hospital, established in 1995 with 750 indoor beds and an indoor facility for psychiatry department which caters to a large population of Sylhet, Bangladesh and neighboring districts. In this study, total 631 samples was included consecutively who were admitted in different departments and were referred for psychiatric consultation over a period of year, from January to December 2019. After taking the written consent, data collection procedure was initiated by the researchers maintaining best possible ways to ensure privacy of the patients. Data was collected through face-to-face interview using a semi structured guestionnaire and the answers were recorded literally. All the referred patients were evaluated by a consultant psychiatrist and diagnosis was made according to the diagnostic guidelines, as per diagnostic and statistical manual of mental disorders 5 (DSM 5).<sup>4</sup> Data analysis was performed according to the objective of the study using computer software program statistical package for social sciences (SPSS) version 16.

#### Results

The results showed that, a majority of the patients belonged up to the age of 20 years (32.01%). The number of patients in the age groups of 21-30 years and above 50 years were 144 (22.82%) and 101 (16.01%) respectively. Female consist of

70.05% and majority (90.17%) of the referred patients belongs to Muslim religion (Table 1). A majority (70.21%) of the referrals were made from the department of medicine. Other major sources of psychiatric referrals were from departments of pediatrics (7.61%), surgery (6.97%), obstetrics and gynaecology (3.80%), orthopedics (2.38%) and cardiology (2.22%). The referral rate from other disciplines was very low (Table 2).

Table 1: Distribution of	demographic	variables	among
the respondents (n=631	)		

Demographic variables	Frequency	Percentage
Age in years		
Up to 20	202	32.01
21-30	144	22.82
31-40	103	16.32
41-50	81	12.84
Above 50	101	16.01
Gender		
Male	189	29.95
Female	442	70.05
Religion		
Muslim	569	90.17
Non-muslim	62	9.83

#### Table 2: Sources of psychiatric referrals (n=631)

Department	Patient number	Percentage
Medicine	443	70.21
Pediatrics	48	7.61
Surgery	44	6.97
Obstetrics and gynaecolo	gy 24	3.80
Orthopedics	15	2.38
Cardiology	14	2.22
Physical medicine	06	0.95
Neurosurgery	05	0.79
Otorhinolaryngology	04	0.63
Others	28	4.44

The reasons for psychiatric referrals which was mentioned in their referral notes, it was found that, the most common reason was the presence of medically unexplained somatic complaints (n=247, 39.14%). Other common diagnoses or complaints were anxiety disorders (n=82, 13.01%), acute psychosis (n=41, 6.51%), schizophrenia (n=37, 5.86%) and depressive disorder (n=31, 4.91%) (Table 3).

Table 3: Th	e common	reasons for	referral	(n=631)
-------------	----------	-------------	----------	---------

Reasons for referral	Frequency	Percentage
(according to referral note)		
Medically unexplained somatic	247	39.14
complaints		
Anxiety disorders	82	13.01
Acute psychosis	41	6.51
Schizophrenia	37	5.86
Depressive disorder	31	4.91
Generalized anxiety disorder	25	3.96
Post-partum psychosis	25	3.96
Abnormal behaviour	24	3.80
Headache	21	3.33
Bipolar mood disorder	19	3.01
Acute stress disorder	19	3.01
Drug abuse	17	2.69
Dementia	11	1.74
Deliberate self-harm	06	0.95
Others	26	4.12

After assessing patients on request of referrals from different departments, we found that our most common psychiatric diagnosis was conversion disorder (n=170, 26.94%), somatic symptom disorders (n=109, 17.27%). Generalized anxiety disorders (16.48%), major depressive disorders (6.66%) and schizophrenia (5.09%) were the common other psychiatric diagnoses (Table 4).

# Table 4: Distribution of respondents by specific types of psychiatric disorders (n=631)

Psychiatric disorders	Frequency	Percentage
Conversion disorder	170	26.94
Somatic symptom disorders	109	17.27
Generalized anxiety disorders	104	16.48
Major depressive disorders	42	6.66
Schizophrenia	32	5.09
Neuro-cognitive disorders	30	4.75
Psychotic disorder due to another medical condition	- 29	4.60
Bipolar II disorders	26	4.12
Brief psychotic disorder	22	3.49
Substance use disorder	15	2.38
Acute stress disorder	13	2.06
Unspecified schizophrenia spectra and other psychotic disorder	um 08	1.27
No psychiatric disorder	31	4.91

### Discussion

This study was a modest attempt to recognize the pattern of psychiatric referrals in a non-government medical college hospital situated in divisional head quarter of Sylhet division of Bangladesh. The referral rate of 1.15% of all admission, which was found in the study place, was comparable to other recent studies conducted in India and most of the previous studies, which had shown a referral rate of 0.06% to 3.6%.<sup>5,6,2</sup> Referral rate reported from the British samples had been varied from 0.4% to 2.8% which was also consistent with this study and lower than those reported from US studies.<sup>7,8</sup> However, it was still comparable to previous Indian studies done more than three decades ago indicating that, the trend had not much improved might be due to an exclusive reliance of non-psychiatric faculties on a consultant centered approach and less awareness.<sup>9-11</sup> Some of the studies which had shown higher referral rates had looked into only a particular subset of patient population like inpatients, emergency patients and cardiology outpatients. 7-9,12

There was preponderance of males. The data from previous studies had not been conclusive in this aspect. Some studies had shown a male preponderance, while others had reported that, female referrals were more common than male referrals which were consistent with this study.<sup>13-16</sup> Age distribution of the study population showed that, a majority of the patients (32.01%) belonged to the age group of up to 20 years. Almost similar results were seen in the studies of Aghanwa et al. and Bhogale et al. with 61.6% and 70% of patients in this age group respectively.<sup>14,6</sup> The proportion of the referred patients in the age group of more than 50 years was 16.01%. This was in accordance to the findings of other Indian studies. Jhingan showed that, 8% of study population was above 60 years and Bhogale et al. found that, 3.3% of the referred patients were older than 65 years. In contrast, western data suggested that, the percentage of referrals in this age group was guite high.<sup>17,18,6</sup> This could be due to various local factors like a lesser life expectancy, a lack of awareness about geriatric conditions like dementia, preference of alternative systems of medicine like ayurveda, homeopathy and unani and family neglect.<sup>19-21</sup> Also, Bangladeshi families had a tendency by to accept geriatric problems as age related and normal. When the sources of referrals were analyzed, it was found that, a majority of the patients were referred from the department of medicine. This was in agreement with findings of previous studies which had shown that, 54.3% to 64.78% of patients were referred from department of medicine.<sup>6,11,13,22</sup> The somatic symptoms of various psychiatric illnesses are given more importance in Bangladeshi culture. Therefore, inadvertently the patients visited general physicians for the treatment of their physical symptom. Ignorance about the psychiatric origin of somatic symptoms and the stigma which was associated with psychiatric consultations Pattern of psychiatric referrals in a tertiary care hospital in Bangladesh

were other factors which might result in patients visiting physicians instead of psychiatrist.<sup>2</sup>

When the reasons for referral were analyzed, it was found that, medically unexplained somatic complaints was the most common category, which accounted for 39.14% of the total referrals. This could be explained on the basis of high prevalence of functional somatic symptoms in Indian patients who had psychiatric illnesses.<sup>23</sup> This was lower than those in the findings in other studies, which had shown that, medically unexplained somatic complaints accounted for 30% and 54% referrals.<sup>15,6</sup> This could be due to growing awareness among other specialists regarding the somatic presentation of anxiety, which itself accounted for a significant 13.01% of the referrals. Schizophrenia was the reason for 5.86% of the total referrals. Surprisingly, the number of referrals following self-harm/suicidal attempts were negligible (n=6, 0.95%) as compared to higher figures seen in other similar studies, which showed values ranging from 9.7% to 33.14%.<sup>6,11,14</sup> When the psychiatric diagnoses of the referred patients were analyzed, it was found that somatic symptom and related disorders was the most common one (n=279, 44. 21%). This category includes two of the common psychiatric disorders like conversion disorder and somatic symptom disorders.<sup>10</sup> This finding was consistent with the data of a majority of the previous studies.<sup>6,7</sup> Interestingly, no psychiatric diagnosis was made in a significant 4.91% of the referred patients. The reasons for referral in these patients were medically unexplained somatic complaints or anxiety disorder. This group represented the false-positive cases which were referred by doctors, possibly due to various factors like non-response to conventional treatment and abnormal illness behaviour. It was pertinent to note that, all of the above-mentioned psychiatric disorders were not only common, but that they could also lead to a significant functional impairment.<sup>24</sup>

The recent introduction of safe and effective psychotropic medication had improved the prognosis of many psychiatric conditions, which were once considered to be untreatable.<sup>25</sup> In this context, psychiatric referrals were of utmost significance, as patients with psychiatric illnesses generally tend to consult other specialists before being referred to a psychiatrist. It was a hospital based cross sectional study and researchers did the study in one hospital in Sylhet city. So, it did not represent the whole group of such patients. Further researches should be aimed to include a larger sample size selected from a larger number of different multi-disciplinary hospitals of different parts of the country.

#### Conclusion

The present study showed that, the liaison psychiatry services to a general hospital needs to improve a lot so that it could be

associated with significant increase in the referral rate of patient from other departments. A multi-disciplinary approach should be encouraged for the management of patients who attend general hospitals, in order to facilitate early recognition and management of psychiatric problems. Further studies need to focus on effects of interventions, like sensitizing other specialists, especially physicians, regarding psychiatric problems and their varied clinical presentations.

#### References

- 1. Karim MR, Shaheed F, Paul S. Psychiatry in Bangladesh. *Int Psych* 2006;3(3):16-8.
- Keertish N, Sathyanarayana MT, Kumar BG, Singh N, Udagave K. Pattern of Psychiatric Referrals in a Tertiary Care Teaching Hospital in Southern India. JCDR 2013;7(8):1689-91.
- Flamm GH. The expanding roles of general hospital psychiatry. Hosp community psychiatr 1979;30:190-2.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Arlington, VA: American Psychiatric Association;2013.
- Grover S, Subodh BN, Avasthi A, Chakrabarti S, Kumar S et al. Prevalence and clinical profile of Delirium: A study from a tertiary care hospital in north India. Gen Hosp Psychiatry 2009;31:25-9.
- Bhogale GS, Katte RM, Heble SP, Sinha UK, Patil PA. Psychiatric referrals in multispeciality hospital. Indian J Psychiatry 2000;42:188-94.
- Goyal A, Bhojak MM, Verma KK, Singhal A, Jhirwal OP et al. Psychiatric morbidity among patients attending cardiac OPD. Indian J Psychiatry 2001;43:335-9.
- Kelkar DK, Chaturvedi SK, Malhotra S. A study of emergency psychiatric referrals in a teaching general hospital Indian J Psychiatry 1982;24:366-9.
- Sidana A, Sharma RP, Chavan BS, Arun P, Lokraj. Psychiatric profile of patients attending General Emergency room services - A prospective study. J Ment Health Hum Behav 2009;14:80-3.
- The ICD 10 classification of mental and behavioral disorders: Diagnostic criteria for research. World Health Organization, Geneva 1993.
- Chen CY, Yeh SS. The present state psychiatric consultation in Change Gung Memorial Hospital, Keelung: a report of clinical charactesticts. Change-Keng Hsueh 1996;19(4):331-6.
- Parekh HC, Deshmukh DK, Bagadia VN, Vahia NS. Analysis of indoor psychiatric referrals in a general hospital. Indian J Psychiatry 1968;10:81-3.
- Singh PM, Vaidya L, Shrestha DM, Tajhya R, Shakya S. Consultation liaison psychiatry at Nepal Medical College and Teaching Hospital. Nepal Med Coll J 2009;11(4):272-4.
- 14. Aghanwa H. Consultation Liaison psychiatry in Fiji. Pacific Health Diag 2002;9(1):21-8.
- Creed F, Guthrie E, Black D, Tranmer M. Psychiatric referrals within the general hospital: comparison with referrals to general practitioners. Br. J. Psychiatry 1993;162:204-11.

- Arababi M, Laghayeepoor R, Golestan B, Mahdanian A, Nejatisafa A et al. Diagnoses, Requests and Timing of 503 Psychiatric Consultations in Two General Hospitals. ActaMedicalranica 2012;50(1):53-60.
- Jhingan HP. Profile of consultation liaison psychiatry cases in a new medical college hospital in Nepal. Indian J Psychiatry 1997;39:40-3.
- Huyse FJ, Herzog T, Lobo A, Malt UF, Opmeer BC et al. Consultation-Liaison psychiatric service delivery results from a European study. General Hospital Psychiatry 2001;23:124-32.
- 19. World Polulation Prospects: The 2010 Revision. United Nations. New York 2011.
- Seby K, Chaudhury S, Chakraborty R. Prevalence of psychiatric and physical morbidity in an urban geriatric population. Indian J Psychiatry 2011;53:121-7.

- Phillips DR. Health and healthcare in the third world. Longman Scientific and Technical, Harlow, Essex, England 1990.
- Michalon M. Consultation-liaison psychiatry: a prospective study in a general hospital milieu. Can J Psychiatry 1993;38(3):168-74.
- Grover S, Avasthi A, Kalita K, Dalal PK, Rao GP et al. IPS multicentric study–Functional somatic symptoms in depression. Indian J Psychiatry 2013;55:31-40.
- 24. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorder (DSM-IV). 4th edition. American Psychiatric Association 1994.
- Sussman N. Biological Therapies. In: Sadock BJ, Sadock VA, Ruiz P. Editors. Comprehensive Textbook of Psychiatry. 9th ed. Philadelphia: Lippincott Williams and Wilkins 2009;2965-66.