

Referral Pattern of Patients to Psychiatry Department at Neuroscience Institute in Bangladesh

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Abstract

Background: Significant proportion of psychiatric illnesses has been reported in neurology inpatients and outpatients. **Objective:** The purpose of the present study was to find out the referral pattern of patients to psychiatry department from different departments of National Institute of Neurosciences and Hospital (NINS&H) and to make diagnosis of referred patients. **Methodology:** This descriptive cross sectional study was done in psychiatry department at NINS&H, Dhaka from July 2013 to December 2013. Patients referred to psychiatry department from different outpatients and inpatients departments were taken as study population. Psychiatric diagnoses of the patients were done by the psychiatrist following Diagnostic and Statistical Manual of Mental Disorders-IV-Text Revision (DSM-IV-TR) diagnostic criteria. Semi structured questionnaire was used to collect socio-demographic data. Ethical issues were maintained strictly. **Results:** A total number of 477 patients were referred to psychiatry department. Most of the patients 469 (98.32%) were referred from outpatients department and only 8(1.68%) from inpatients department. Among the referred patients 97.28% had psychiatric illness. The commonest psychiatric diagnosis were somatoform disorders 156(32.70%), anxiety disorders 66(13.83%), major depressive disorder 95(19.91%), bipolar mood disorder 27(5.66%), schizophrenia and related disorders 33(6.92%). Next common diagnosis were substance related disorder 18(3.77%), epilepsy 14(2.94%), mental retardation 13(2.73%), autism 10(2.10%), attention deficit hyperactivity disorder 9(1.89%), sleep disorder 9(1.89%). **Conclusion:** In conclusion there is a large number of psychiatric patients attended at the OPD as well as the IPD of the referral neurological tertiary care hospital of which somatoform disorders is the most commonly found. [J Natl Inst Neurosci Bangladesh 2015;1(1): 8-11]

Keywords: Referral pattern, psychiatry, neurology

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Introduction

Neurological illness has been found associated with psychiatric condition and psychological problems are known to occur as a consequence of neurological disorders. High levels of psychiatric illness have been reported in neurology outpatients and inpatient. It has also been shown that psychiatric illnesses are occasionally missed in

neurological patients. Bridges and Goldberg reported 39% of psychiatric illness in neurology inpatients and 72% of psychiatric illness was unrecognized^{1,2}. Carson et al found prevalence of 47% for anxiety and depressive disorders in patients referred to general neurology outpatient department³. Fink et al found that only 1.5% of the patients with a mental illness were referred to a psychiatrist. Almost

in every physical illness there is a psychological component in being ill of a person⁴. The significance of assessing the psychiatric aspect of the patients is very important for many reasons. First, the physical illness may directly influence brain and cause psychiatric symptoms. Secondly, the disease may indirectly cause psychological reaction and produce psychiatric symptoms. Thirdly, some psychiatric disorders may present with physical or somatic symptoms. Fourthly, many patients visit to neurology outpatient and may admitted in inpatient department suffer from com-morbid psychiatric illness⁵. Different studies showed that neurological illnesses have been recognized associated with psychiatric conditions and psychological problems are known to occur as a result of neurological disease⁶⁻⁸. So it is important therefore further evaluation should be carried out on this aspect. Most of the highly prevalent neurological disorders show a remarkable of co morbidity with specific psychiatric symptoms. Up to 50% of all patients with stroke develop a depression. Depression also occurs in 55% of all cases of epilepsy and 40% of all Parkinson's disease. Also, while 53% of multiple sclerosis patients suffer from mood disorder⁹. So psychiatric referral is often needed for complete management of the patients and referrals are made when the treating physician has questioned about a patient mental health. The objectives of this study were to find out the referral pattern of patients to psychiatry department from different departments in NINS&H and to make diagnosis of the referred cases with their sociodemographic characteristics.

Methodology

This descriptive cross sectional study was in psychiatry department of National Institute of Carrie out, Dhaka from July 2013 to December 2013. All the patients of both sexes referred from the different disciplines both out-patients and inpatients departments were included in the study. Any duplication was excluded from the study. Psychiatric diagnoses were done by the psychiatrist using DSM-IV-TR diagnostic criteria. Semi-structured questionnaire was used to collect the socio-demographic characteristics. Ethical implication was maintained strictly. NINS&H is a 300 bedded tertiary level neuroscience hospital started from September 2012 situated in Sher-E-Bangla Nagar, Dhaka nearby several hospitals and institutes. There are several departments including clinical neurology, intervention neurology, pediatric neurology, clinical neurosurgery, pediatric neurosurgery, neuro-trauma surgery, gama knife surgery, physical medicine and rehabilitation, psychiatry, cardiology and other allied disciplines such as neurophysiology, pathology, microbiology, biochemistry, pharmacology, neuro radiology and imaging. Intensive care unit (ICU), high dependency unit (HDU) and emergency services also available in this hospital. Patients from all over the country come to NINS&H and approximately 400 patients come outpatient department every day.

Results

A total number of 477 patients were referred to the psychiatry department during the study period. Their referral pattern and characteristics are given below using tables and figures.

Table 1: Age distribution of the respondents (N=477)

Age (Years)	Frequency	Percentage
Less than 20 years	99	20.75
20 to 40 years	252	52.83
40 to 60 years	95	19.92
More than 60 years	31	6.50
Total	477	100.0

Table 1 showed the age distribution of the patients and found most of them 252(52.83%) were 21 to 40 years of age.

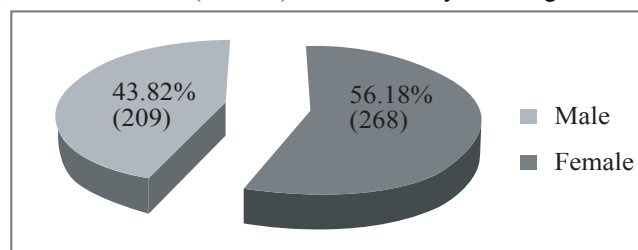


Figure 1: Sex distribution (N=477)

The above figure showed that 56.18% of the referred patients were male and 43.82% were female

Table 2: Department wise distribution (N=477)

Department	OPD	IPD	Total
Neurology	448(98.7%)	6(1.3%)	454(100.0%)
P. Neurology	18(94.7%)	1(5.3%)	19(100.0%)
Neurosurgery	3(75.0%)	1(25.0%)	4(100.0%)
Total	469(98.3%)	8(91.7%)	477(100.0%)

* P. Neurology= paediatric neurology

Most of the referred patients 448(93.92%) were from neurology OPD. Among the rest 18(3.77%) were from paediatric neurology OPD, 3(0.63%) were from neurosurgery department OPD, 6(1.26%) from neurology IPD, 1(0.21%) from neurosurgery and IPD of paediatric neurology.

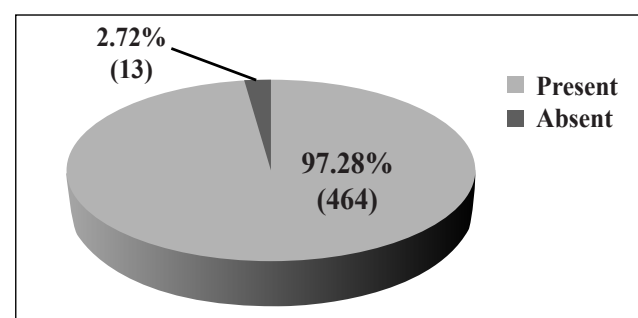


Figure 2: Presence or absence of psychiatric diagnosis (N=477)

Among the referred patients 464(97.28%) had psychiatric illness.

Table 3: Psychiatric diagnosis (n=464)

Diagnosis	Frequency	Percentage
Somatoform disorder (SD)		
Conversion disorder	28	5.87
Pain disorder	92	19.29
Undifferentiated SD	21	4.40
Others	15	3.14
Anxiety disorders		
Phobic disorder	8	1.68
Panic disorder	12	2.52
Obsessive compulsive disorder (OCD)	27	5.66
Generalized anxiety disorder (GAD)	15	3.14
Others	4	0.84
Major depressive disorder (MDD)	95	19.91
Schizophrenia	24	5.03
Delusional disorder	7	1.47
Post partum psychosis	2	0.42
Bipolar mood disorder (BMD)	27	5.66
Substance related disorder (SRD)	18	3.77
Epilepsy	14	2.94
Mental Retardation (MR)	13	2.73
Autistic spectrum disorders (ASD)	10	2.10
Attention deficit hyperkinetic disorder (ADHD)	9	1.89
Sleep disorder	9	1.89
Personality disorder	5	1.05
Total	464	97.28

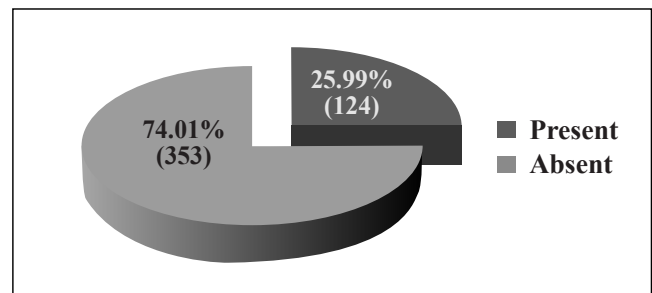
Among the referred patients 124(25.99%) had co-morbid physical illness.

Discussion

This descriptive cross sectional study was done in psychiatry department in NINS&H to see the referral pattern and to make psychiatric diagnosis of the referred patients. Age distribution showed that most 252(52.83%) of the referred patients were between 20 to 40 years of age group. Similar findings have been reported by Aghanwa et al¹⁰ in a study from West Africa found that most of the patients who were referred to psychiatry department from neurology were 16 to 45 years group¹⁰. In this study above 65 years population was found 6.5% which was also consistent with another study in Nepal found 8% of referred patients were above 60 years age group. Among the respondents most of them were male 268(56.18%) and rest 209(43.18%) were female. Bhogale et al found male patients were more than female referred patients which was consistent with our study¹². Reverse findings were found by Shaikh et al⁵ in a rural medical college hospital in Bangladesh where 62% of female and rest were male patients who were referred to psychiatry department and this may be due to that female present their problem through somatic complaints⁵.

In the present study it was found that most of the patients 469(98.32%) were referred from outpatient department (OPD) and only 8(1.68%) patients were referred from

Figure 3: Co morbidity (N=477)



inpatient department (IPD). This may be due to that only selected neurological patients were admitted in IPD and in the OPD patients come for their somatic complaints related to head and in OPD they were seen by the neurologist and when they found no organic cause, then patients were referred to psychiatry department. On the other hand there are 16.01% of adult population and 18.4% of children has mental illness in Bangladesh^{13,14}. Some patients at first visited to medicine specialist or neurologist for their psychiatric symptom due to social stigma or not aware about their psychiatric symptoms. So this huge number of OPD referral may be the reasons. Among the OPD referral most 448(93.92%) of the patients were referred from neurology department, 18(3.77%) patients were referred from paediatric neurology department and only 3(0.63%) patients were referred from neurosurgery department. In IPD 6(1.26%) patients were referred from neurology department and paediatric neurology and neuro surgery department each was 1(0.21%) referred patient. In a study in Europe by Jonge et al found 1.8% of IPD was referred to consultation liaison psychiatry which is consistent in our study⁹.

Table 4: Co-morbid physical illness (n=124)

Physical illness	Frequency	Percentage
Hypertension	36	7.54
Diabetes mellitus	24	5.03
Stroke (CVD)	11	2.30
IHD	10	2.09
Dementia	8	1.68
Parkinson disease	12	2.52
TB meningitis	2	0.42
CKD	6	1.26
Post encephalitis	2	0.42
Hypercholesterolemia	13	2.73
Total	124	25.99

The diagnoses of the referred patients were made by DSM-IV-TR diagnostic criteria. Among the referred patients 464(97.28%) had psychiatric illness and 13(2.72%) were not diagnosed any psychiatric illness and this was due to that they had some psychiatric symptoms but did not fulfill the diagnostic criteria. The most common psychiatric disorders were found somatoform disorders (156, 32.70%); among them pain disorder was most frequent (92, 19.29%), followed by conversion disorder (28, 5.87%),

undifferentiated somatoform disorder (21, 4.40%), somatization disorder and somatoform disorder not otherwise specified (15, 3.14%). This finding was similar with Fink et al⁴. and found 33.81% of somatoform disorders in neurology OPD in their study⁴. This result was also consistent with Ahmed et al¹⁵. Study conducted by Shaikh et al⁵ in a rural tertiary care medical college hospital in Bangladesh found 16.30% of somatoform disorders in their study. Perkin in a study of new referral patients to psychiatry department found 26.5% of somatoform disorders. The second common diagnosis was major depressive disorder (95, 19.9%) in the study. Almost similar finding was found by Ahmed et al¹⁵ are found 25% of MDD in neurology OPD. Carson et al³ found 27% of MDD in their study³. Williams et al¹⁷ found 33% and Shaikh et al⁵ found 35% of MDD in their studies which was higher in relation to the present study. In this study anxiety disorders were found 13.3%; among them obsessive compulsive disorder (OCD) was found 5.66%, generalized anxiety disorder 3.14%, panic disorder 2.52%, phobic disorder 1.68% and other anxiety disorders were 0.84%. Almost similar findings (17.66%) were found by Ahmed et al in their study. Carson et al³ found 20% of anxiety disorders in their study in neurology OPD. In the present study 5.6% of bipolar mood disorder and 6.96% of schizophrenia and related disorders. Ahmed et al¹⁵ found 3.66% of psychosis and 3% of BMD in their study¹⁵. Other less common disorders were substance related disorders 18(3.77%), epilepsy 14(2.94%), mental retardation 13(2.73%), autistic spectrum disorders 10(2.10%), ADHD 9(1.89%), sleep disorders 9(1.89%) and personality disorders 5(1.05%). The high prevalence of somatoform disorders, MDD and anxiety disorders may be due to that people think that they have problem in the brain so they visited neuroscience hospital or neurologist first and ultimately they were diagnosed as a psychiatric symptoms or illness. On the other hand major psychiatric illness like schizophrenia, BMD, delusional disorders and post partum psychosis patients also come to neurology hospital because they think that their problem in the brain so neurology hospital is the place for proper management and occasionally guardian thinks that their patients will be cured if they were seen by the neurologists.

In this study co-morbid physical disorders were found 25.99% of referred patients and among them 10.90% were found more than one physical illness. Among the physical illness hypertension (7.54%), diabetes mellitus (5.03%), stroke (2.30%), ischemic heart disease (2.09%), parkinson's disease (2.52%), tubercular meningitis (0.42%), chronic kidney diseases (1.26%), Post encephalitis (0.42%) and Hyperlipidemia (2.73%) were found.

Culture has a significant impact on the way people perceive their illness and seek treatment. The fact that psychiatric illness is still considered stigmatic may be the reason for people seeking neurologist than psychiatrist. There were

some limitations of the study. Short duration of the study, small sample size, lack of informants, some patients were missing in the follow up visit, proper referral systems including referral note were not found in all patients.

Conclusion

Results of the study indicate that interdepartmental interaction is needed to provide proper comprehensive service to patients. It is particularly important to raise awareness regarding the psychological aspect of any illness of a patient. Further broad based study like assessment of psychiatric morbidity among the patients attending neurology hospital is required to have more evidences in this regard.

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