



Psychiatric Morbidity Patterns in Referred Inpatients of Other Specialties

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ABSTRACT

Introduction: Consultation-liaison psychiatry is an upcoming field dealing with interdepartmental collaboration heading into multidisciplinary and holistic care. In general hospital setting, psychiatrists need to be involved in evaluation of patients referred from other specialties. This study analyzed the psychiatric morbidity among the inpatients referred to Psychiatry Department from different wards in a Tertiary care University Teaching Hospital.

Methods: Total 385 subjects were referred to the Department of Psychiatry from different wards during a period of one year. Each of them underwent a detailed psychiatric evaluation by a consultant psychiatrist once they were medically stable. Psychiatric diagnosis was considered as per International Classification of Disease-10 criteria.

Results: The mean age of the subjects evaluated was 37.26 (± 1.86); most of them were females 216 (56.4%), married 287 (74.5%), and homemaker 159 (41.3%). Maximum 271 (70.4%) referral was from Medical ward, and most of them 292 (75.8%) were admitted in general bed. The most common medical diagnosis was self-poisoning 115 (30.6%) followed by alcoholic liver disease 49 (12.7%); while the commonest 123 (31.9%) psychiatric diagnosis was depression (including Dysthymia and Adjustment disorder). Depression remained the commonest diagnosis among those referred from medical ward 131 (34.7%); while anxiety was mostly found in the emergency referral 94 (24.5%). Significant Correlation ($P < 0.05$) was seen between the source of referral and Psychiatric diagnosis.

Conclusions: Psychiatric consultation was sought mostly by medical ward that had maximum number of patients presenting with self-poisoning. The commonest diagnosis seen in the referred in-patients was depression and anxiety disorder.

Keywords: *consultation-liaison psychiatry; in-patient referral; psychiatric morbidity.*

INTRODUCTION

All illnesses are considered to have both psychological and physical dimensions.¹ Association between physical illness and psychiatric morbidity has been well recognized and evidenced in different studies.²⁻⁷

Consultation-Liaison Psychiatry has been considered to be an interface between Psychiatric and Non-psychiatric medicines as practiced in general hospital setting.⁸⁻¹⁰

Though it has been shown that the organization of consultation service and its efficiency are factors interfering with the rates of referral, studies looking into psychiatric referral patterns in different hospital settings

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do not show comparable results.¹¹⁻¹⁶ Similarly, literature looking into the factors leading to the lower referral rates in Psychiatry is sparse and inconclusive.¹⁷⁻²⁴

Keeping this in mind, this study was undertaken in a University Teaching Hospital setting with the aim to evaluate the patterns of referral of inpatients from other specialties to the Department of Psychiatry and describe the apparent psychiatric morbidity patterns of those patients.

METHODS

This descriptive cross-sectional study was conducted in the Department of Psychiatry, Dhulikhel Hospital (Kathmandu University Hospital) after getting approval from the Institutional Review Committee (IRC) of Kathmandu University School of Medical Sciences (KUSMS). The study population included all those patients admitted in different wards of Dhulikhel Hospital from 1st October 2010 to 30th September and referred for psychiatric evaluation to the Department of Psychiatry. Each patient underwent a detailed psychiatric evaluation by a consultant psychiatrist once they were medically stable. Psychiatric diagnoses were considered as per ICD-10 criteria.²⁵ Details of the patients including socio-demographic data, medical/ surgical diagnosis, psychiatric diagnosis and outcome were studied.

There were total 385 subjects referred from different wards (including Emergency and ICU) for Psychiatric evaluation during the study period of one year. All of them were evaluated in detail once they were clinically stable. Socio-demographic details of subjects, month of evaluation, source of referral, place of admission, medical/ surgical and psychiatric diagnosis and psychiatric management done were tabulated and analyzed. SPSS software package (Version 16, SPSS Inc., Chicago, USA) was used to analyze the data. Descriptive statistics and correlation coefficient was used to obtain the desired results.

RESULTS

The maximum number of the subjects was found to be in the age group 11-40 years; mean and median age was 37.26 (± 1.86) and 35.5 respectively. There was female predominance; female: male ratio was 1.29:1. Almost three-fourth of the study population was married; one-quarter belonged to Brahmin caste and maximum were homemaker and agriculturist by occupation (Table 1). Frequency of referral was the highest in the months March to May, and again in September. Referral rate was calculated to be 385 (3.78%) (Table 2).

Table 1. Demographic profile of the Patients evaluated from Oct 10 to Sept 11.

Demographic Variables	Frequency n = 385 (%)	
Age group*	<10	1 (0.3)
	11-20	81 (21.0)
	21-30	85 (22.1)
	31-40	68 (17.7)
	41-50	59 (15.3)
	51-60	41 (10.6)
	61-80	45 (11.7)
	>80	5 (1.3)
Sex†	Male	168 (43.6)
	Female	217 (56.4)
Marital status	Single	72 (18.7)
	Married	287 (74.5)
	Separated or Divorced	10 (2.6)
	Widowed	16 (4.2)
	Brahmin	92 (23.9)
Caste/Race	Chhetri	74 (19.2)
	Newar	68 (17.7)
	Mongolian	83 (21.6)
	Dalit / Disadvantaged	64 (16.6)
	Terai /Madhesi subcaste	4 (1.0)
	Agriculture	122 (31.7)
	Homemaker	159 (41.3)
Occupational Status	Business	15 (3.9)
	Government official	3(0.8)
	Student	69 (17.9)
	Teacher	5 (1.3)
	Others	12 (3.1)

*Mean (\pm Standard Deviation) = 37.26 (± 1.86); Median Age = 35.5; † Female: Male ratio = 1.29:1

The Medical ward referred 271 (70.4%) while the referral from Emergency was 53 (almost 14%). Three-quarters of the patients were admitted in the general ward (Table 3). The commonest medical diagnosis among the referred in-patients was self-poisoning 115 (30.6%); alcoholic liver disease was also common 46 (12.7%). However, 46 (12%) were found to have no medical/surgical diagnosis (Table 4).

Psychiatric evaluation was done once the referred patients were medically stable and the diagnosis was considered as per the ICD-10 criteria.²⁵ Almost one-

third of the subjects were found to have depressive illness (including Dysthymia and Adjustment Disorder); a quarter of them had Alcohol related psychiatric problem (dependence/ withdrawal). Other common Psychiatric disorders were Personality disorder, Anxiety disorder, and Dissociative disorder. However, in 34 (around 9%) were found to have no Psychiatric illness of any kind while in 11 (around 3%), psychiatric diagnosis could not be made as they could not be evaluated further (Table 5).

It was seen that among the total 271 patients referred from Medical ward, the commonest diagnosis was depressive illness 95 (35%); followed by alcohol withdrawal 76 (28%) and personality disorder 45 (16.6%). While among the Emergency referral cases (53), the common psychiatric diagnosis were Anxiety disorder 65 (24.5%), alcohol withdrawal 35 (13.2%) and dissociative disorder 30 (11.3%). Similarly, among the 93 patients admitted in ICU setting, Psychiatric evaluation following clinical stabilization revealed Depressive Illness 37 (40%) to be the commonest psychiatric problem followed by personality disorder 28 (30%) (Table 6).

Table 2. Month wise Presentation of Referred Patients.

Month of evaluation	Total In-Patients	Frequency of referred patients n (%)
October 2010	814	27(3.32)
November 2010	763	15 (1.96)
December 2010	908	23 (2.53)
January 2011	777	28 (3.6)
February 2011	780	26 (3.33)
March 2011	855	40 (4.67)
April 2011	816	48 (5.88)
May 2011	853	43 (5.04)
June 2011	904	37 (4.09)
July 2011	829	28 (3.38)
August 2011	940	27 (2.87)
September 2011	930	43 (4.62)
Total	10169	385 (3.78)
Referral Rate = 3.78%		

Table 4. Medical/ Surgical Diagnosis of the Patients evaluated.

Medical/ Surgical Diagnosis	n (%)
Abortion	4 (1.0)
Alcoholic Liver Disease	49 (12.7)
APD	22 (5.7)
Catatonia	4 (1.0)
COPD	22 (5.7)
Delirium	26 (6.8)
Diabetes Mellitus	5 (1.3)
Hanging	2 (0.5)
Headache Syndrome	8 (2.1)
PID	11 (2.9)
Poisoning	118 (30.6)
Post-operative status	10 (2.6)
Postpartum state	4 (1.0)
RTA	3 (0.8)
Seizure Disorder	11 (2.9)
Nil	47 (12.2)
Others	39 (10.1)

Table 5. Psychiatric Diagnoses of the Patients evaluated.

Psychiatric Diagnosis	Frequency (n = 385) (%)
Organic mental illnesses/Delirium	15 (3.9)
Alcohol Dependence syndrome/ withdrawal	89 (23.1)
Psychosis / Schizophrenia spectrum disorder	15 (3.9)
Depression/ Dysthymia / Adjustment Disorder	123 (31.9)
Mania/Bipolar Disorder	3 (0.8)
Anxiety spectrum disorder	21 (5.5)
Childhood psychiatric illnesses/ Mental Retardation	1 (0.3)
Dissociative disorder	18 (4.7)
Personality disorder	49 (12.7)
Others	6 (1.6)
No psychiatric diagnosis made	34 (8.8)
Further evaluation required	11 (2.9)

Table 3. Referral patterns of the patients.

Variables		n (%) n = 385	Correlation coefficient	P value
Source of Referral	Medical	271 (70.4)	0.122	0.016*
	Surgical	19 (4.9)		
	Gynaecology / Obstetrics	23 (6.0)		
	Pediatrics	5 (1.3)		
	Orthopedics	11 (2.9)		
	Emergency	53 (13.8)		
	Others	3 (0.8)		
Place of Admission	General ward	292 (75.8)	0.171	0.001†
	ICU	93 (24.2)		

*P <0.05, †P <0.01.

Table 6. Psychiatric Diagnosis among the Patients referred from Medical ward and Emergency and those admitted in ICU.

Psychiatric Diagnoses	Referral from Medical ward (n = 271) (%)	Referral from Emergency (n = 53) (%)	Admitted in ICU (n = 93) (%)
Organic mental illnesses/ Delirium	8 (3.0)	2 (3.8)	2 (2.2)
Alcohol withdrawal	76 (28.0)	7 (13.2)	14 (15.1)
Psychosis spectrum disorder	8 (3.0)	2 (3.8)	3 (3.2)
Depression, Dysthymia and Adjustment disorder	94 (34.7)	6 (11.3)	36 (38.7)
Mania /Bipolar Disorder	2 (0.7)	1 (1.9)	NA
Anxiety spectrum disorder	5 (1.8)	13 (24.5)	NA
Dissociative disorder	10 (3.7)	6 (11.3)	4 (4.3)
Personality disorder	45 (16.6)	3 (5.7)	27 (29.0)
Others	1 (0.4)	3 (5.7)	NA
Further evaluation required	7 (2.6)	2 (3.8)	2 (2.2)
No Psychiatric diagnosis made	15 (5.5)	8 (15.1)	5 (5.4)

DISCUSSION

The emergence of the concept of Consultation-Liaison Psychiatry half a decade back brought a new momentum in the health care management system as it was considered to be a mechanism which bridges the gap between psychiatry and general medicine providing a clear picture of the disorders occurring in hospital practice.^{1,2} Its significance was considered in terms of holistic care approach that looks upon both the psychological and physical components of any illness; moreover leading to a comprehensive physical and psychological care, shorter in-patients stay, better quality of life, less distress and decreased rate of deliberate self harm.¹

The importance of such practices cannot be overestimated in General Hospital settings in general; and University Teaching Hospital like ours in particular. Though there is regular Psychiatric service in any Medical College Teaching Hospital in our country and most of the other General Hospitals, the referral rates from other departments for psychiatric consultation varies.^{17,18} Even the studies done in India, other South American and African regions show differences in referral rates in comparison to some other Western studies.¹²⁻¹⁶

Keeping these facts in mind, we intended to conduct a study in our Teaching Hospital setting; to explore the referral patterns from other Departments to our Department of Psychiatry in order to initiate an attempt to understand the factors affecting the practices of Consultation-Liaison Psychiatry in our centre. In the study period of one year, we evaluated medical/ surgical and psychiatric diagnosis (if any) of the patients referred for psychiatric evaluation from other different wards in our hospital and tried to analyze the interrelationship between them and their primary source of referral; in addition to the descriptive analysis of the socio-demographic profile and treatment related factors of those subjects.

Referral rate for Psychiatric evaluation in our study was 3.78% which was comparable to a similar study done in a General Hospital setting at Bangalore.¹⁶ However other Indian studies have shown lower referral rates.^{14,15,26} In a study done in a medical college setting in Kathmandu, referral rate was 1.4%.¹⁷ Similar is the case in Brazil and South Africa, where psychiatric referral has been found to be less in comparison to that in Western Hospitals.^{12,13} Psychiatric referral rate in our centre can be considered somewhat encouraging keeping in mind the facts we received from the earlier studies done elsewhere. Referral rates in the summer months (March to May) was maximum in comparison to the other months of the year which can be attributed to the fact that self-poisoning which is the most common medical diagnosis (30.6%) among these patients is also higher in these months leading to

increase in the Psychiatric referral load; it corroborates with the findings in our study done last year in the same centre looking into the psychiatric profile of the patients presenting with Intentional self harm.²⁷

The study revealed that the maximum numbers of subjects were in their second to the fourth decades of life, females, homemakers and married; keeping with the findings from earlier similar studies done elsewhere and that of the study done last year in the same centre.^{3,10,24,27} A study from the medical college setting in Eastern Nepal however showed slightly more predominance of males and teenagers.¹⁸ Almost three quarters of our patient sample were referred from the Medical ward, one-tenth were from the Emergency Department; which is in keeping with the findings from a British case-record study.¹⁰ Almost half of the referrals were from Medicine Department in the Kathmandu based Medical College study.¹⁷ Similarly, in the study of Eastern Nepal, referral from medicine and Emergency Department made almost one-third of the total patient sample.¹⁸ A recent research conducted in India looking into the psychiatric referral patterns also revealed more than 50% referrals were from General Medicine.⁹ Maximum referral from physicians in our study is probably related to high number of cases with self poisoning as quoted in earlier studies.^{3,10,16,27} When self-poisoning cases were excluded, maximum referrals were found for alcohol related problems, mostly withdrawal symptoms (12.7%) and delirium (6.8%); as has been shown in other studies.^{1,12,16}

Detailed psychiatric evaluation of these referred in-patients revealed commonest diagnosis to be depression (32%), followed by Alcohol Dependence Syndrome (23%) and personality disorder (13%). Mostly the personality disorders were of Emotionally Unstable (Impulsive) or Mixed type as per the ICD-10 criteria, though we had not used any scale for Personality Disorder Identification. Most of them were admitted for Intentional Self Harm (ISH), some had multiple attempts, hence impulsive traits/ personalities were seen commonly. Other similar studies done at various centers in India and abroad also showed Depression to be the most common psychiatric diagnosis in referred patients.^{3,10,16,24,28} Depression was common even in the Kathmandu study.¹⁷ In Dharan, Dissociative disorders were more prevalent among the referred patients.¹⁸ The least diagnosed conditions were Psychosis (3.9%) and Mania (0.8%) as in an Indian study.¹⁶ In contrast to findings from some other studies, there were less referral from Gynecology and Obstetrics (6%), Surgery (4.9%) and Orthopedics (2.9%).^{22,29}

Almost a quarter of the patients referred from Emergency were later diagnosed to have Anxiety spectrum disorder (mostly panic); followed by Alcohol withdrawal (13.2%)

and Dissociative disorder (11.3%). Most of these patients were brought to the Emergency with history of suicidal attempt, excitement, violence and altered sensorium as seen in a similar study of emergency psychiatric referrals in a teaching general hospital in India.³⁰

Psychiatric evaluation of the patients admitted in ICU setting once they were medically stable revealed maximum (39%) of them had depression followed by personality disorder (29%) showing a statistically significant correlation, as seen in a recent Indian study.¹

More than one-tenth of the referred patients in our study had no physical diagnosis, which can be considered to be psychologically determined; hence related to the large load of Depression and Anxiety Disorder as discussed in some earlier studies and a recent South African study.^{13,16,31} A community study of Psychiatric illnesses in the patients coming for treatment in a Health camp conducted in Eastern Nepal also demonstrated the load of Depression and Anxiety; in keeping with the findings of this Hospital-based study.³² Even in Western Nepal, a recent study looking for the load of psychiatric illnesses in the OPD patients in a private hospital showed predominance of Neurotic illnesses and Mood Disorders comprising above 50% of the total patients evaluated.³³

In around 9% of the cases, no psychiatric diagnosis could be made; either they could not satisfy the ICD-10 criteria for any psychiatric disorder or we could not get sufficient time to evaluate them in detail due to early discharge.

In summary, our study attempted to explore the possibility of the presence of psychological factors playing their role in the variety of physical illnesses among the patients admitted in different wards of a tertiary level

Teaching Hospital; hence illustrating the importance of psychiatric evaluation of medical/ surgical cases and significance of an emerging field in the Mental Health care delivery system, i.e. Consultation-Liaison Psychiatry.

However, this study had certain limitations as well; our study cohort included only the hospitalized patients referred for psychiatric evaluation posing difficulty in the generalization of the results as selection bias might have been a limiting factor in this case. Different outcomes may be expected in out-patient or community setting.

CONCLUSIONS

Psychiatric consultation was sought mostly by medical ward with a maximum number of patients presenting with self-poisoning and the commonest psychiatric diagnosis seen in the referred in-patients was depression and anxiety disorder. Our study basically highlighted the importance of an increase in the awareness of the presence of psychological factors in physical illnesses leading to holistic care of an individual patient; which can be achieved in a general hospital setting through Consultation-Liaison psychiatry.

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