

Psychiatric morbidity among physically ill persons in eastern Nepal

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ABSTRACT

This cross-sectional hospital-based study investigated the prevalence and pattern of psychiatric morbidity among 151 physically ill psychiatric-referred cases admitted various departments in BPKIHS. Consecutive referral cases were initially worked up by junior residents and diagnosis/differential diagnosis was made by consultant according to ICD-10 diagnostic guidelines. Of total 151; M: 77 (50.9%) and F: 74 (49.1); Majority 38 (25.1%) of subjects were young with age 15-24 yrs and 95 (62.9%) were from plains. About 21.8% referrals came from internal medicine followed by emergency department, 9 (5.9%). The highest number of cases 48 (31.7%) had neuropsychiatric illnesses and 17.0% had some medical complications resulted from suicide act. Among psychiatric co morbidity, dissociative/conversion disorders were the commonest 26 (17.2%) followed by alcohol use-related disorders 25 (16.5%) and depressive disorder 20 (13.2%). To conclude, the co-occurrence of medical and psychological/psychiatric conditions is common, which demands timely identification and early interventions in order to reduce morbidity and mortality.

Keywords: Co morbidity, physical and psychiatric condition, general hospital, Nepal.

INTRODUCTION

The association between physical and psychiatric conditions is a complex, yet common phenomenon. The increased rate of emotional and psychiatric problems in physically ill population has been consistently documented in several studies. The major reasons for such co-occurrence are: firstly, an overall high prevalence of psychiatric morbidity in general population across the societies. The recent WMH (World Mental Health) and WHO sponsored multicentre, multinational study documented an overall high prevalence of mental illness with the lowest rate in Shanghai, China- 4.3% and the highest at 26.4% in the US.¹ In Nepal, the estimated prevalence rate is 10-15.0% in general population and about 14.0% in the population of Kathmandu Valley.² Secondly, physical problem adds up to a risk factor for emotional problem or psychiatric disorders as it may act both as the psychological and the physiological stressor. The prevalence of psychiatric disorder in the hospitalized physically ill people has been observed to a range from 5.0% through more than 50.0%, depending upon the specific illness involved.³ Certain psychiatric disorders are more common in one medical condition than others. For instance, delirium is found in 15 to 30.0% of hospitalized cases, whereas depression, panic and somatization disorders are 2 to 3 and 10 to 20 times higher in physically ill individuals respectively. Similarly, substance abuse is 3 to 5 times higher in this subgroup than general population.⁴ The life time prevalence of a mental disorder in chronically physically

ill patients was reported to be at 42.0%- the most common being substance abuse and mood or anxiety disorders compared to 33.0% in those who did not have long-term physical disability.⁴

Conversely, people with mental illness put themselves at greater risk to develop physical problem owing to the inherent unfavorable symptom of the illness such as lack of judgment and insight and also due to lack of motivation, energy and so forth. Further, mental illness itself alters bio-physiological status making vulnerable for developing medical illness. Psychoimmunology has convincingly demonstrated that stress and depression significantly impair immunocompetency.⁵ Consequently, the co-existence of physical and psychiatric morbidity negatively affects the course and outcome of both the conditions resulting in increased overall burden of disease. For example, the presence of major depression negatively affects the outcome of some illnesses such as myocardial infarction and HIV/AIDS.⁶ Despite being quite common, the co-occurring psychiatric/psychological conditions often go undetected or even at times are ignored. However, their presence engenders various deleterious consequences. Chronic suffering, deterioration of physical and psychiatric condition, morbidity and even mortality has been well documented by careful studies. Timely identification of and intervention to such patients will not only enhance their recovery, prognosis⁷ but also will help to avoid unnecessary investigations and wastage of resources.

Table-1: Subjects' socio-demographic profile of (n=151)

Age (in year)	Frequency (f)	(%)
<5	4	2.6
15-24	38	25.1
25-34	28	18.5
35-44	27	17.8
45-54	25	16.5
55-64	14	9.3
>65	15	9.9
Sex:		
Male	77	59.9
Female	74	49.1
Ethnicity:		
Hilly	56	37.1
Non-Hilly	95	62.9
Domicile:		
<i>Distance from service</i>		
<50 KM	88	58.2
> 50 KM	48	31.7
India	15	9.9
Occupation		
Business	6	3.9
Job	10	6.6
Shopkeeper	7	4.6
Farmer	15	9.9
House Wife	62	41.1
Student	25	16.5
Skilled	4	2.6
Unskilled	2	1.2
Unemployed	20	13.2

OBJECTIVES

To estimate the prevalence of psychiatric morbidity among admitted physically ill patients.

To describe demographic characteristics, referral sources, pattern of referral and other relevant variables.

MATERIAL AND METHODS

This is a descriptive, cross-sectional hospital-based study carried out over four months period in BPKIHS, a tertiary level; 650-bedded general teaching hospital with a catchment area of whole eastern Nepal and some neighboring bordering districts of Indian states of Bihar and West Bengal. The hospital has all clinical departments, except for some super specialty departments like neurology, endocrinology, thoracic surgery etc. The psychiatry department provides 24-hour emergency service, OPD and Inpatient care through 22-bedded ward. It also renders round the clock psychiatry consultation service as per need. All possible consecutive referred cases to the psychiatry department from various departments were included in this study. Initially cases

were worked up by junior residents (PG students) and discussed with consultants. Then the consultant/s reviewed the case and if required interviewed the case/informant before making final diagnosis/differential diagnosis. The diagnosis was made according to ICD-10 diagnostic guidelines.⁸ An informed consent is obtained from patient or from key informant before including in the study. Then detailed proforma was completed, which contained the information related to socio-demographic profile, source of and reason for referral, presenting complaints, current physical disease, treatment, and psychiatric diagnosis and management plan.

RESULTS

Socio-demographic Profile of subjects:

Age distribution: Majority 38 (25.1%) of subjects belonged to young age-group (15-24 yrs). The subjects with age range between 25-54 years were almost evenly distributed; ranged from 16-18.0%. Children below 5 years old were negligible; 4 (2.6%). Subjects above 65-year was 15 (9.9%).

Sex: Of total 151 subjects; 77 (50.9%) were males and rest 74 (49.1%) females.

Ethnicity: Majority of the cases 95 (62.9%) were from non-hilly (plain) areas and rest 56 (37.1%) were from hilly ethnic group.

Table-2: Subjects' clinical profile

Referring Department	Frequency (f)	(%)
Medicine	72	47.6
Emergency	33	21.8
Orthopedics	9	5.9
Gynae/Obs	9	5.9
ICU/CCU	7	4.6
Surgery	7	4.6
EYE/ENT	6	3.9
Dermatology	5	3.3
Pediatrics	3	1.9
Medical conditions:		
Neurology/neuropsychiatry	48	31.7
Complication of suicidal attempt	26	17.2
Respiratory illness	21	13.9
Surgical conditions	10	6.6
Others	46	30.6
Duration of Medical Illness(in days/month)		
<1	68	45.1
8-15 days	20	13.2
16-20 days	7	4.6
1-6 months	19	12.5
6-12 months	6	3.9
12-24 months	9	5.9
> 24 months	22	14.5

Table-3: Psychiatric clinical profile

Psychiatric conditions	Frequency (f)	(%)
Dissociative/conversion disorder	26	17.2
Alcohol use related disorders	25	16.5
Depressive disorder	20	13.2
Duration of Psychiatric Illness (in days & month)		
<1	42	27.8
8-15 days	6	3.9
16-20 days	5	3.3
1-6 months	35	23.1
6-12 months	8	5.3
12-24 months	8	5.3
> 24 months	47	31.2
Time lapsed between admission and psychiatric consultation (in Days)		
1	39	2.5
2-7	83	54.6
> 8	29	18.1

Past history of mental disorder: 58 (38.4%); Family history: 18 (11.9%); Stressor (besides medical illness): 50 (33.1%);

*Mean duration of psychiatric illness = 52.18 months (range one day to 10 years); *Mean days on which consultation made = 4.85 days

Domicile: Maximum number 88 (58.2%) of cases hailed from nearby places (< 50 km), about 31.0% was came from far off places and about 10.0% was hailed from India.

Occupation: The vast majority of the cases were 62 (41.1%) housewives, followed by students 25 (16.5%) and 20 (13.2%) unemployed. The unskilled subjects were negligible, i.e. 2.0%.

Clinical Profile of the subjects:

Referral sources: Of 151 referrals, 72 (47.6%) were made by internal medicine department, 33 (21.8%) by emergency department, 9 (5.9%) each from orthopedics and gynecology department and least being pediatrics 3 (1.9%).

Reason for referral: Majority of the referrals 90 (59.6%) did not mention any specific reason for consultation, but just mention of 'kindly evaluate the patient'. About 23.0% (35) were consulted to control the acute disturbances, followed by 'to rule of depression/somatization' in 18 (11.9%). Few cases 8 (5.5%) were referred with the complaint of non-compliance to treatment or refusal of oral intake.

Physical illness: Majority of the cases 48(31.7%) were diagnosed as having neurological and neuropsychiatric illnesses. About 17.0% of subjects had medical conditions resulted from the suicidal acts.

Duration of Medical Illness: The vast majority of cases 68 (45.1%) had an acute problem, with only one day of

history, followed by long-standing problem in 22 (14.5%) cases.

Psychiatric Co morbidity: Dissociative/conversion disorders were 26 (17.2%) common condition followed by Alcohol use-related disorders 25 (16.5%) and Depressive disorder 20 (13.2%).

'Multiple' and 'No' diagnosis: Fifteen patients (10.0%) received more than two psychiatric diagnoses, whereas about 3.5% cases had no psychiatric problem.

Duration of Psychiatric Illness: More than one-third 47 (31.1%) cases had been suffering from more than 2-yr duration followed by more than one-fourth subjects 42 (27.8%) had had psychiatric illness of less than a week duration.

Past history of mental disorder: More than half 58 (38.4%) had had mental illness in the past.

Family history: About one-fifth 18 (11.9%) gave a positive family history of mental illness.

Stressor: More than one-third 50 (33.1%) had reported to have stressor. Medical illness did not consider as a stressor.

Time gap between admission and psychiatric consultation: Maximum number 39 (25.8%) of psychiatric consultations were sought on the first day of admission (mostly in the emergency room), followed

Table-4: Psychiatric morbidity according to age groups

Elderly (age > 65 years):		
Morbidity	Frequency (f)	(%)
(Organic condition) Delirium	6	40.0
Alcohol withdrawal	3	20.0
Depressive disorder	2	13.3
Bipolar Affective Disorder	1	6.6
Dementia	2	1.2
Alcohol related Disorder	1	6.6
Psychiatric morbidity in young age group (age 15-25 years)		
Categories of morbidity		
Conversion/Dissociation	17	44.7
Depressive Disorder	5	13.1
More than one diagnosis	4	10.5
Psychosis	4	10.5
Self harm behavior	2	5.3
Panic Disorder	2	5.3
No Psychiatric Illness	2	5.3
Suicide attempt (Impulsive)	1	2.6
Delirium	1	2.6

Table-5: Psychiatric morbidity according to sex

Diagnosis	Male (N=77)		Female (N=74)		Combined	
	n	%	n	%	n	%
Alcohol-related disorders	20	25.9	5	6.7	25	16.5
Organic mental disorders	9	11.6	4	5.4	13	8.6
Depressive disorder	9	11.6	15	20.2	24	15.8
Conversion / Dissociative Disorder	7	9.1	18	24.3	25	16.5
Anxiety/adjustment disorder	7	9.1	9	12.2	16	10.6
Psychoses	7	9.1	3	4.0	10	6.6
More than one diagnoses (suicide)	7	9.1	8	10.8	15	9.9
Bipolar affective disorder	3	3.9	2	2.7	5	3.3
<i>Suicide attempt:</i>						
Impulsive	2	2.6	2	2.7	4	2.6
Borderline personality	2	2.6	4	5.4	6	3.9
Somatoform disorder	0	0.0	3	4.1	3	1.9
No diagnosis	4	5.1	1	1.3	5	3.3
Total	77	100.0	74	100.0	151	100.0

by on second day 25 (16.5%). The average time lapsed at the time of consultation was 4.85 days.

Psychiatry disorder according to subjects' age:

(A) Elderly subjects (age > 65 years) (N=15)
Majority 6 (40.0%) of elderly people were suffered from Organic condition-Delirium, followed by consequences of Alcohol Depend Syndrome 5 (33.3%).

(B) Young age group (age 15-24 years) (N=38):
In this age group, Conversion/Dissociation topped the list with 17 (44.7%) cases, followed by depression 5 (13.1%). Whereas 2 (5.3%) of case did not receive any psychiatric diagnosis.

DISCUSSION

This is the hospital-based, cross-sectional study, conducted with aims to ascertain the prevalence and pattern of psychiatric morbidity among physically ill hospital admitted persons. During study period, 920 patients received inpatient service among which 151 (16.4%) patients needed psychiatric consultation. This figure is less in comparison to the finding reported from the UK,⁹ where about 25.0% inpatients have had psychiatric disorders. As for demographical profile, the majority of cases belonged to young age group possibly reflecting the composition of population in the society and also the nature of hospital, i.e. general hospital which provides services to all age group population. Though this hospital caters service to entire eastern region, the majority had come from nearby places, i.e. less than 50 km perimeter area and from plains indicating their easy accessibility and better transportation facility to reach the hospital. The majority of subjects were referred from department of internal medicine. It is an expected observation as the bulk of patients were dealt by this department, as there are no separate super specialty

departments, which otherwise had shared patient burden. Next heavy chunk of patients were looked after by emergency department, which is understandable in the light that this department is the biggest and well equipped in the whole region. The co morbidity of neurological and psychiatric conditions is common and often delineating these conditions is quite difficult as a result misplacing/overlapping of these cases in both the departments are not unusual and so are the referrals. The majority of calls/referrals were sought on the first day of admission which is consistent with the fact that the highest number of cases developed psychiatric problem acutely. On the other hand, both physical as well as mental illness showed bimodal duration of illness; either shorter or longer duration. The acute nature of illness and the consultation right in the emergency room has contributed for 'early psychiatric consultation' in most of the cases. Acute behavioral disturbances are commonly seen in 'delirium' cases which were common in this study. This finding is in consistent with the findings reported in the west where the delirium cases were found in 15 to 30.0% of hospitalized cases.⁴ Though its cause/s largely lies in physical illness, owing to high degree of disturbances, this condition quite often demands a psychiatry consultation. The precise reason/s for consultation is not mentioned in the most of the referrals. This reflected on the unclearness about the help sought or a low confidence level on the referring doctor's part as to what exactly they were looking for or expecting from the index consultation. Whereas the targeted/reasoned referrals not only help consulting clinician to focus on specified area of problem but also would offer a feedback for the referring physician about the condition of the patient.

In this study, the majority of subjects were suffered from neurological or neuropsychiatric illnesses as primary

problem followed by the complications related to suicide attempt. Being a tertiary care centre with better facility in the region, a good number of patients visit to or are being referred to this hospital particularly emergency case. The breakup of psychiatric conditions revealed that the highest number of cases was accounted for by conversion disorders, mainly represented by females followed by alcohol related complications, overwhelmingly preponderant to males. Although the number of conversion/dissociative cases is decreasing in the west, this problem is still prevalent in our set up. The skewed gender pattern seen in our conversion cases was in the agreement with another hospital-based finding where more young females were afflicted with this condition with male-female ratio being 1:4 (*Personal Communication*). This study documented a high rate of alcohol-related problems and depressive disorder which parallels with the findings from previous community-based studies, where the prevalence of alcohol abuse/dependence stood at 26.5% of the surveyed population.¹⁰ Yet in another hospital-based study, a significant alcohol problem was found (18.0%) in surgical and medical cases.¹¹ Persons with alcohol problem can land up in any department and the internal medicine facility being the commonest one. As expected, the elderly people suffered from organic neuro-psychiatric disorders, mainly from delirium, dementia and also alcohol related complications. A good number of patients have had suicide related complications, which were listed under medical illness or 'more than one diagnoses' and 'suicide' was not categorized as a single/major clinical entity thus pure (high intent) suicide cases were less. The distribution of 'suicide attempts' was almost equal in the both sexes, with higher underlying borderline personality disorder in females, well consistent with another literature.⁴ Although organic conditions, mainly delirium was common in various departments, only very few consultation-seeking clinician had got proper understanding about this entity. Interesting, the majority had considered this as a 'functional psychosis', and ignored its bearing on underlying physical cause/complications. One-tenth had received more than one psychiatric diagnoses apart from medical diagnosis. Patients with co-morbidity carry poor prognosis, course and high disease burden. Studies revealed that when patients with cardiac problem develop psychiatric disorder, their morbidity and mortality increases significantly.¹² Only a small number of cases did not receive any psychiatric diagnosis, which indicates that the referrals were genuine and possibly only obvious cases were referred. Probably cases with subtle symptoms might have been missed. Psychiatric consultation, by its nature provides a good opportunity

to psychoeducate patients and family member about the nature of illness and management plan and would reinforce previous psychoeducation. Stressor/s plays a crucial role in triggering and or exacerbating mental illness which is reflected in the finding that more than one-third had reported having stressor, even when medical illness was ignored. About one-fifth subjects revealed family history of mental illness. But, we could not confirm the diagnosis or the nature of those illnesses in their relatives due to inadequate information. This finding supports the fact that psychiatric disorders have significant genetic bearing. And again emphasizes the role of interaction between biological, psychological and social factors in the development of psychiatric disorders.

To conclude, the co-occurrence of medical and psychological/psychiatric conditions is common, which demands timely identification and early interventions in order to reduce morbidity and mortality. Sensitization about these issues among all clinicians is essential and also interdepartmental liaison to be emphasized.

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