PATTERN OF PSYCHIATRIC EMERGENCIES AT TERTIARY CARE HOSPITAL IN KARACHI

Abdul Ghani Khan, Raza ur Rahman, Moin Ansari, Zafar Hayder, Musarrat Hussain

ABSTRACT

Objective: To determine patterns of psychiatric emergencies at tertiary care general hospital.

Design: Cross-sectional.

Place & Duration of study: Emergency and Accident Department of Jinnah Postgraduate Medical Centre, Karachi for a period of one month.

Subjects and Methods: During the period of study 10,000 consecutive patients who attended the Emergency & Accident Department of JPMC were registered. These patients were screened for psychiatric illness, using partially modified Urdu version of Present State Examination (PSE) and final diagnosis was made according to diagnostic criteria of WHO's International Statistical Classification of Diseases.

Results: Out of all registered patients at emergency department, two hundred and thirty two (2.3%) were identified as suffering from psychiatric illness. There were more male as compare to female (1.2:1) and their age ranged from 14-65 (average 28) years. Majority of patients in sample were educated and single. Most of male were employed while females were home maker. Mostly parents were accompanying these patients and one fifth (20.6%) of them were hospitalized.

Mood disorder was the most frequent diagnosis (29.3%) followed by neurotic, stress related and somatoform disorders (25%), suicide attempters (15%) and Psychotic disorder (12.9%). Rest of sample was sample was having diagnosis of drug dependence, EPS, organic mental disorders and Mental Retardation etc.

Conclusions: Psychiatric illnesses are common in accident & emergency department of tertiary care hospital, particularly among young males. Common illnesses included Mood disorders, Neurotic, stress related and somatoform disorders, schizophrenia and attempted suicide.

Key words: Psychiatric emergencies, Pattern, Hospitalization.

INTRODUCTION

Psychiatric emergency may be defined as, any disturbance in thought, feelings or actions for which immediate therapeutic intervention are necessary[1]. Psychiatric emergencies are frequently seen by emergency physicians who face the challenge of assessing and managing patients presenting with psychosis, severe depression, agitation, suicidal intent and substance abuse. One of the important factors considered in evaluation of psychiatric patient in this setting is exclusion of organicity that may mimic psychiatric condition particularly in elderly[2].

In accident and emergency department same psychiatric emergency rooms are shared by men and women and usually many persons are attending them[3]. Both of these factors need to be considered while dealing with psychiatric patients. Therefore collaboration between emergency physician and psychiatrist is mandatory and it is improving as both of these disciplines are progressing. Emergency medicine is moving to identify and explore its clinical contents, and psychiatry destined toward their biological convergence[4].

Considering the importance of collaboration between emergency physician and psychiatrist this study was designed to investigate the pattern of psychiatric disorders at accident and emergency department. The knowledge of pattern of psychiatric emergency will in turn enable the emergency physician to understand and

Abdul Ghani Khan, MBBS, MCPS, FCPS (Psych), Assistant Professor Psychiatry, NICH, Karachi.

Raza ur Rahman, MBBS, FCPS (Psych), DCPS-HPE, Assistant Professor Psychiatry, Dow University of Health Sciences, Karachi.

E-mail: razaur@yahoo.com

Moin Ansari, MBBS, FCPS (Psych), Assistant Professor Psychiatry, Liaquat University of Medical & Health Sciences, Hyderabad.

Zafar Hayder, Assistant Professor Psychiatry, Jinnah Postgraduate Medical Centre, Karachi.

Musarrat Hussain, MBBS, MCPS (Psych), MD, MRCPsych, Dr. Med, D. Sc, Ex Head of Psychiatry Department, Jinnah Postgraduate Medical Centre, Karachi.

Correspondence:

Dr. Raza ur Rehman

deal with such patients or referral them accordingly. This understanding of physician at emergency department will ultimately help in improving the care of psychiatric patients at emergency department.

SUBJECTS AND METHODS

This cross sectional study was conducted at emergency and accident department of Jinnah Postgraduate Medical Centre (JPMC), which is a tertiary care teaching hospital in Karachi and providing 24 hours emergency services to a large portion of the city.

Total 10,000 patients were registered at Emergency and Accident Department of JPMC during one month. Out of these registered patients those found to have psychological problem by physician at emergency department were referred to psychiatric counter that was specially established for this study in Emergency and Accident Department. All patients referred to this counter were included in study.

Initially 20 psychiatric patients were evaluated at emergency department as pilot study to assess the feasibility and to identify any methodological problems. The preliminary data of pilot study with protocol was presented in research meeting at the psychiatry department for review. Based on critical comments and suggestions necessary changes were made in methodology of this study.

In order to make the study representative no publicity was given to the research activity. The only additional effort was the training of doctors from psychiatry department who were supposed to be present on psychiatric counter in Emergency and Accident Department. Necessary steps were carried out to ensure that no case could be missed. For the purpose of conducting the study, a team of doctors was developed consisting of postgraduate trainees and senior house officers of psychiatry department who remain present round the clock in emergency psychiatry counter in Emergency and Accident Department. The doctors were divided in three shifts under the supervision of researcher. They were briefed about the nature of work. To standardize the data collection procedure a session was conducted by researcher with the doctors included in team and researcher regularly conducted meeting three times a day with doctors present at psychiatry counter in emergency department particularly at the time of change in shift. Additional information whether elicited or offered were also documented.

Before including in this study informed consent was obtained from each patient and/or accompanying person (who were usually family members) after explaining the purpose and the nature of study. Reassurance was also given regarding the secrecy of information.

Demographic data was collected on a semi-structured proforma. Each patient referred to psychiatric counter at emergency department was interviewed based on Present State Examination (PSE) and diagnosis was made according to criteria of International Classification of Diseases (ICD-10) [5].

Cases with diagnostic difficulties were admitted in the psychiatry ward. All of such cases were presented in morning meeting in the department and discussed with senior colleagues to achieve consensus on the diagnosis. Most of the patients were discharged once their acute emergency problem was managed with advice to attend psychiatric outpatient department.

Statistical analysis was done through SPSS computer software (version14). The analytical approach of different parameters for comparison proportions expressed as percentages was tested through "Chi square" test where it was valid, if not yet correction was applied. The means of different parameters was tested through Z-test.

RESULTS

Two hundred and thirty two patients were identified as psychiatric patient among consecutive 10,000 patients who attended the Emergency and Accident Department. This figure constitutes 2.3% of all emergency visits at JPMC and forms the sample of this study. In this sample the proportion of female was slightly higher than male (1.2:1). The age of the patients in sample ranged from 14-65 years with an average of 28. Males were slightly younger (27 years) as compared to females (29 years) as shown in table-1, This difference in age of gender was found to be statistically significant ($P<0.05$) on Z-test. Literacy rate of the patients in sample was 72.4% break down of which is given in table-1

It is also evident from table-1 that more than half of the patients in sample (53.8%) were un-married and occupationally majority of males were employed while most of females were house hold.

Most of the patients in this study were accompanied by parent. Other accompanying person includes siblings, relatives, neighbors, spouses and children.

After initial treatment 62.5% of patients (n=145) were referred to the psychiatric OPD for follow up and 20% (n-48) were hospitalized in psychiatry ward while rest (16.8%) were referred to other specialties for management of medical problem, majority of whom were suicidal (87.5%).

Table-2 represents diagnostic break up based on ICD-10 classification. That shows that mood disorder was the most common diagnosis in this sample of study. Among mood disorder patients' majority were suffering from bipolar affective disorder with manic episode followed by moderate depressive episode with or without somatization, severe depressive episode with or without psychotic symptoms, recurrent depressive disorder and manic episode.

Table 1

General Statistics at a Glance (n=232)

Average age (range) of sample Average age (range) of male Average age (range) of female	28 (14-65) years 27 (14-62) years 29 (15-65) years
Male	54.47% (n=127)
Education	
Secondary Pre-Literate Primary Graduate Intermediate Postgraduate	36.64% (n=85) 27,59% (n=64) 21.55% (n=50) 7.33% (n=17) 5.60% (n=13) 1.29% (n=3)
Martal Status	
Un-married Married Divorce Separated	53.88% (n=125) 43.10% (n=100) 1.72% (n=4) 1.29% (n=3)
Occupation	
House Hold Unskilled Skilled Unemployed Students	32.76% (n=76) 21.98% (n=51) 21.55% (n=50) 12.93% (n=30) 10.78% (n=25)
Accompanying Person	
Parents Siblings Others Spouse Son/Daughter Alone	43.10% (n=100) 21.55% (n=50) 15.52% (n=36) 13.79% (n=32) 3.45% (n=8) 2.59% (n=6)
Management Pathways	
Advised to attend Psychiatry OPD Hospitalized in Psychiatry ward Referred to other specialties	62.50% (n=145) 20.69% (n=48) 16.81% (n=39)

Neurotic, stress related and somatoform disorders were the second most common disorder (25%) in this sample of study. In this category majority of patients were presented with conversion (dissociative) disorders and their symptoms include hysterical fits, aphonia and dissociative stupor etc. Other Neurotic illnesses include phobic anxiety disorder, generalized anxiety disorder, panic attack, grief reaction and somatization.

Fifteen percent (n-35) of cases in sample reported to have intentional self harm (attempted suicide) that results in death of two patients one male and one female

Majority of attempted suicide patients were young males. The common methods used were insecticide (Tyfon/Finis/DDT) ingestion, Benzodiazepines over dose (mostly diazepam), Kerosene oil ingestion, Self-burning, miscellaneous drugs overdose and Unknown poisons. Three fourth of suicidal attempts (26) were having history of intra family conflict followed by depressive episode and psychosis. No cause of suicide attempt was detected in two patients. Both of complete suicide patient were depressed. History of suicidal attempts was found in four patients all of them were suffering from depressive illness.

Among psychotic patients (schizophrenia, schizotypal and delusional disorders) ratio of male was higher than female. Schizophrenia was the commonest psychotic diagnosis followed by acute and transient psychotic disorders and schizoaffective disorders, (depressive type).

Twelve patients (5.1%) were having Substance abuse problems, all of them were males mostly young. The substances of abuse include opiates, cannabinoids, and alcohol.

Common presentations of extra pyramidal symptoms (EPS) in order of frequency include acute dystonia and pseudo Parkinsonism. Most of these patients were males and young.

Table 2: Diagnosis

ICD - 10 Diagnostic category	Male	Female	Total	Percentage
F00-F09, Organic including symptomatic, mental disorders	8	3	11	4.7%
F10-F19, Mental and behavioural disorders due to psychoactive substance use	12	0	12	5.1%
F20-F29, Schizophrenia, schizotypal and delusional disorders	19	11	30	12.9%
F30-F39, Mood(affective)disorders	42	26	68	29.3%
F40-F48, Neurotic, stress related and somatoform disorders	16	42	58	25.0%
F450-F59, Behavioural syndromes associated with physiological disturbances and physical factors.	0	3	3	1.2%
F70-F79, Mental retardation	2	1	3	1.2%
G21-G25, Extra-pyramidal symptoms (EPS)	7	3	10	4.3%
X60-X84, International self hard (attempted and completed suicide)	21	16	37	15.8%
TOTAL	**127**	**105**	**232**	**100%**

Common organic conditions presented with psychiatric symptoms include specific mental disorders due to brain damage/dysfunction and physical disease (epileptic psychosis)

DISCUSSION

Accident and emergency department of general hospital also handles most of acute psychiatric emergencies like violence, excitement, suicidal attempt, stupor etc, which previously were the domain of mental hospitals[6].

As, patients are seen, examined, and treated as quick as possible, so that all the cases can be managed in time; it is difficult to accurately diagnose all the psychiatric cases. In order to eliminate diagnostic error, final diagnosis was postponed till the next 8 hourly meeting with researcher.

In this study male out-number female in utilization of emergency department for psychiatric illnesses in a ratio of 1.2:1. This observation is in line with the finding of study conducted in India by Trividi & Gupta[7] where this ratio is 1.62:1. This over representation of males in emergency psychiatric consultations can not be explained on the basis of demographic patterns in the country. It remains to be understood, whether this is due to avoidance to bring emergency, particularly psychiatric, cases to general hospital, on the part of their families; or lesser possibility of emergency manifestations of female psychiatric patients..Whatever the fact underlies this, but it is shared in both geographical areas.

Literacy rate of participants of this study was high that in fact projects the literacy rate of Karachi as high literacy rate was shown in urban areas of Sindh in recent census[8].

Majority of the participants in this study don't continue their education after secondary. This might show the frustration in educated people which may have triggered their psychiatric illnesses. Perhaps life events studies may be helpful in this case[9].

The person who accompanied the patient in most of the cases were parent & sibling (64%), and in old age, spouses. This indicates the strong family ties in the form of joint family system that is still present in Pakistani culture. Family support system is a positive prognostic determinent[10], if this does positively affect the prognoses of mentally ill people in this population, remains to be studied.

Regarding diagnostic breakup, Mood (affective) disorders (F 30 – F 39) were the highest reported diagnosis in emergency department with depressive illnesses at top. This pattern is consistent with any psychiatric outpatient attendance. Male with depressive illness present with psychic symptoms (depression without somatic symptoms), while females presented with somatic complaints. This finding reflects perception of our society where female consult for apparent and visible symptoms.

Neurotic illnesses (F40-F48) were the second commonest diagnosis in sample of this study with significant predominance among female. In this category, conversion disorder (hysteria) in female was at top (65.5%). This finding is in consistent with findings of Kelkar et al[6] where hysteria was present in 66.6% of Indian females.

The commonest cause of suicide in present study was intra family conflicts which is in accordance with the study carried out by Neehall J et al in Trindad[11] which most likely a impulsive phenomenon depending one's ability and accessibility due a subtraction of anxio-depressed state irrespective of psychotic disorder. Khan MM et al[12] in his study in Pakistan found interpersonal conflict with opposite sex as most common precipitating cause. While in our study, exact inter family cause not detected possibly people avoid to discuss their private matters in emergency setting. All cases of attempted suicidal used oral agents mostly insecticide, surprisingly no death reported in these suicide attempters as evident from follow up of these cases in the Poison Control Centre of JPMC, where all the patients were referred after receiving initial treatment. Two patients of complete suicide were brought to emergency department both of them were identified as cases of depressive illness.

All cases of substance dependence in this study were male, possibly as smoking is not approved in female our socio-cultural setup which act as safety valve in women against addiction.

The result of this study reveled that psychiatric emergencies in general hospital represent the entire spectrum of psychiatric disorders.

CONCLUSION

Most of the patients suffering from psychiatric illness present in emergency department were young and males. Common diagnoses noted were Mood disorders, Neurotic, stress related and somatoform disorders, Schizophrenia and Intentional self harm (attempted suicide). Presentation of high number of psychiatric patient at emergency department demands to establish a separate psychiatric emergency unit with well trained staff in general hospital or at least to impart the doctors with the basic knowledge of dealing with psychiatric emergency. This can be achieved by properly incorporating this subject in undergraduate curriculum as done in all developed countries.

REFERENCES

1. Knott JC, Bennett D, Rawet J, Taylor DM. Epidemiology of unarmed; threats in the emergency department. Emer Med Australas 2005;17:351-8.
2. Pieckhniczek-Buczek J. Psychiatric emergencies in the elderly population Emerg Med Clin North Am 2006;24:467-90.

3. Sadock BJ, Sadock VA. Psychiatric emergencies in adults. In: Sadock BJ, Sadock VA, editors. Kaplan & Sadock's Synopsis of psychiatry. 10th Ed. Baltimore: Williams & Wilkins; 2007. p. 811-23.

4. Ellison JM, Hughes DH, White KA: An emergency psychiatry update. Hosp Community Psychiatry 1989;40:250-60.

5. International Classification of Diseases Tenth Revision (ICD-10), World Health Organisation, Geneva; 1992.

6. Kelkar DK, Chaturvedi SK, Malhotra S. A study of emergency psychiatric referrals in a teaching general hospital. Indian J Psychiatry 1982;24:366-9.

7. Trivedi JK, Gupta AK. A study of patients attending emergency out patient services of a large teaching institution. Indian J Psychiatry 1982;24:360-5.

8. Population and housing census bulletin 9: Population census organization. Statistics division of Government of Pakistan, Islamabad, 1998.

9. Holmes TH, Rahe RH. The social adjustment rating scale. J Psychosom Res 1967;11:213-8.

10. Gelder M, Gath D, Mayau R, Cowen P. Oxford textbook of psychiatry. 3rd Ed. Oxford: Oxford University Press; 1996. P. 308-41.

11. Neehall J, Beharry N. Demographic and clinical feature of adolescent parasuicides. West Indian Med J 1994;43:123-6.

12. Khan MM, Islam S, Kundi AK. Parasuicide in Pakistan: Experience at a University Hospital. Acta Psychiar Scand 1996;93:264-7.