

Profile of Psychiatric Patients Presenting to a Tertiary Care Emergency Department of Karachi

Muhammad Shahid¹, Muhammad Zaman Khan³, Kiran Ejaz⁴, Rooham Nakeer⁵ and Sundus Iftikhar²

ABSTRACT

This study reviewed the presentations of psychiatric patients admitted through the Emergency Department (ED), The Aga Khan University Hospital, Karachi. Psychiatric patients admitted through the ED to the psychiatry ward were compared to those admitted through the same units other than the psychiatry ward, from 2006 to 2010 using medical records. Psychiatric patients were defined as those in whom psychiatry consult was generated and 1127 cases were included in study. There were 550 (48.8%) female patients. Most common presentations in the ED were sleep-related problems (n=205, 15.9%) followed by aggressive behavior (n=191, 14.8%). Depression was the most common diagnosis made in the ED (n=331, 29.3%) and at the time of discharge from the hospital (n=354, 29.5%). Psychiatric patients presenting to the ED had signs and symptoms which one generally disregards. However, these minor indicators can lead to major events in a patient's life.

Key Words: *Psychiatric patients. Care. Emergency department. Minor psychiatric indicators.*

According to World Mental Health Survey mental illnesses are undertreated in many high and low income countries.¹ In urban Sindh, Gadit summarized that depression was seen in 16% of the patients followed by 7% substance abuse and related disorders along with psychosomatic disorders in 5%.² Mental health problems are mostly studied in primary care settings in Pakistan.³ However, depressive patients utilize Emergency Department (ED) services three to four times more than non-depressive counterparts and thus indirectly spend more on healthcare.⁴ In emergency situation, junior as well as a few senior physicians have sometimes difficulty in recognizing psychiatric illnesses. Even final year Medical students rotating in Emergency Medicine do not get proper exposure to psychiatric problems in their undergraduate course content.⁵ The objective of the study was to review the presentations of psychiatric patients admitted through the ED of a tertiary care facility of Karachi.

This was a comparative cross-sectional study. Ethical Review Committee (ERC) of the Aga Khan University (AKU) approved the study. This study was done from September 2011 to August 2012 at the Department of Emergency Medicine, AKUH, Karachi. All patients above the age of 15 years, who presented to the ED, later got

admitted in either the psychiatric ward or any other wards of the hospital in whom psychiatric consultation was generated were included in the study. Those patients admitted through the Outpatient Departments or admissions directly in the wards were excluded from the study. Categorical variables inquiring patients' demographics, presentation pattern, previous illness and management details were included. Data was collected from the medical records. During 5 years period (2006 to 2010), 88725 patients were admitted through the ED to the hospital. A total of 5954 patients (6.7% of the total admissions) were admitted for inpatient care through the ED in whom psychiatric consult was generated. These patients were under direct or indirect treatment of psychiatrist. With bond of error at 3% and 95% Confidence Interval, a sample size of 997 was calculated with 80% power. Stratified random sampling was adapted. The type of ward where the patient was admitted was taken as strata and then the participants were randomly selected from the list of patients' medical records. The data was grouped according to the psychiatry and otherwise departments; where they were admitted as in-hospital patients. Later data was entered and analyzed using Statistical Package for the Social Sciences (SPSS) version 19. Median (IQR) was computed for age in years. Frequency and percentage were computed for gender, presentation patterns, previous illnesses and management details. As one patient can have more than one presentation, like psychiatric admitting or discharge diagnoses and comorbidities. Multiple response analysis was done for psychiatric admitting or discharge diagnoses, comorbidities and percent of responses were presented accordingly.

Records of 1306 patients were reviewed and 1127 cases were included in the study; 577 (51.2%) were males and

¹ Department of Emergency Medicine / Research Centre², The Indus Hospital, Karachi.

³ Department of Psychiatry / Emergency Medicine⁴, The Aga Khan University Hospital, Karachi.

⁵ Medical Student, Jinnah Sindh Medical University, Karachi.

Correspondence: Dr. Muhammad Shahid, 13-A, Block 9, Karachi Administration Society, Karachi-75350.

E-mail: mohd_shahid72@yahoo.com

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Table I: ED presentations with gender distribution and place of admission in the hospital.

Presentations*	Gender Responses (%)		Patients admitted through ED Responses (%)		Total
	Male	Female	Psychiatry ward	Other places of hospital	
Sleep disorder	117 (17.8)	88 (14)	194 (17.2)	11 (6.9)	205 (15.9)
Aggressive behavior	113 (17.2)	78 (12.4)	181 (16)	10 (6.3)	191 (14.8)
Irrelevant talk	91 (13.8)	83 (13.2)	161 (14.3)	13 (8.1)	174 (13.5)
Mood swings	62 (9.4)	72 (11.4)	128 (11.3)	6 (3.8)	134 (10.4)
DSH	54 (8.2)	71 (11.3)	117 (10.4)	8 (5)	125 (9.7)
Agitation	50 (7.6)	44 (7)	82 (7.3)	12 (7.5)	94 (7.3)
Depressive symptoms	34 (5.2)	59 (9.4)	65 (5.8)	28 (17.5)	93 (7.2)
Suspicious	44 (6.7)	38 (6)	78 (6.9)	4 (2.5)	82 (6.4)
Palpitation	35 (5.3)	41 (6.5)	56 (5)	20 (12.5)	76 (5.9)
Restlessness	39 (5.9)	36 (5.7)	69 (6.1)	6 (3.8)	75 (5.8)
Weakness	42 (6.4)	33 (5.2)	33 (2.9)	42 (26.3)	75 (5.8)
Appetite disorder	36 (5.5)	37 (5.9)	66 (5.9)	7 (4.4)	73 (5.7)
Suicidal ideas	31 (4.7)	32 (5.1)	55 (4.9)	8 (5)	63 (4.9)
Unresponsiveness	19 (2.9)	35 (5.6)	41 (3.6)	13 (8.1)	54 (4.2)
Panic attack	10 (1.5)	21 (3.3)	31 (2.7)	0 (0.0)	31 (2.4)
Over activity	21 (3.2)	10 (1.6)	27 (2.4)	4 (2.5)	31 (2.4)
Delusion	2 (0.3)	4 (0.6)	6 (0.5)	0 (0.0)	6 (0.5)
Total responses	658	630	1128	160	1288
Total cases**	366	375	602	139	741

* Multiple responses; ** Number of cases (patients) with known / documented ED presentations.

Table II: Final diagnoses with gender distribution and place of admission in the hospital.

Final diagnosis*	Gender Responses (%)		Patients admitted through ED Responses (%)		Total
	Male	Female	Psychiatry ward	Other places of hospital	
Depression	122 (21.6)	232 (36.7)	182 (24.3)	172 (38.1)	354 (29.5)
Schizophrenia	106 (18.7)	63 (10)	147 (19.7)	22 (4.9)	169 (14.1)
Bipolar disorder	82 (14.5)	57 (9)	114 (15.2)	25 (5.5)	139 (11.6)
Stress	44 (7.8)	51 (8.1)	42 (5.6)	59 (11.8)	95 (7.9)
Conversion disorder	16 (2.8)	68 (10.7)	62 (8.3)	22 (4.9)	84 (7)
Dementia	35 (6.2)	46 (7.3)	4 (0.5)	77 (17.1)	81 (6.8)
DSH	49 (8.7)	30 (4.7)	68 (9.1)	11 (2.4)	79 (6.6)
Psychosis	40 (7.1)	21 (3.3)	33 (4.4)	28 (6.2)	61 (5.1)
Frontal lobe syndrome	15 (2.7)	33 (5.2)	43 (5.7)	5 (1.1)	48 (4)
Substance abuse	38 (6.7)	1 (0.2)	19 (2.5)	20 (4.4)	39 (3.3)
Panic attack	15 (2.7)	22 (3.5)	28 (3.7)	9 (2)	37 (3.1)
Paranoid	3 (0.5)	5 (0.8)	1 (0.1)	7 (1.6)	8 (0.7)
Mood disorder	1 (0.2)	4 (0.6)	5 (0.7)	0 (0.0)	5 (0.4)
Total responses	566	633	748	451	1199
Total cases**	454	498	604	348	952

* Multiple responses; ** Number of cases (patients) with known / documented ED presentations.

550 (48.8%) were females. Median age of study participants was 40 years (IQR 26 - 57 years). Among the participants, record of 1086 (96.4%) related to marital status was available. There were 691 married (63.6%), 367 single (33.7%), 16 widow/widower (1.5%), 11 divorced (1.0%) and 01 separated (0.09%) patients. Most (n=606, 53.8%) of the patients came to the ED at night timings, 330 (29.3%) in evening and 191 (16.9%) in morning timings. Six hundred and seventy (59.4%) had history of psychiatric illness. Majority (n=656, 58.2%) were admitted in the psychiatry ward and remaining 471 (41.8%) were admitted in in-hospital areas such as Medical, Surgical and Obstetrical and

Gynecological wards. Profession of 845 patients was documented which comprised of 225 housewives (26.7%), 170 unemployed (20.2%), 40 shopkeepers (4.7%), 8 landlords (0.9%) and 402 others including those with changing job patterns (48%). Presentations of the psychiatric patients coming to the ED are shown in Table I. Emergency physicians noted the diagnoses of 698 cases with 737 responses in ED. These diagnoses made by Emergency Physicians were depression in 331 (29.8%), psychiatric illness in 310 (27.5%), bipolar disorder in 136 (12.0%), schizophrenia in 120 (10.6%), deliberate self-harm in 81 (7.2%), dementia in 54 (4.8%), conversion disorder in 37 (3.3%), panic attacks in 25

(2.2%), mood disorder in 15 (1.3%), stress disorder in 13 (1.1%), paranoid in 4 (0.3%), frontal lobe syndrome in 01 (0.08%). Final diagnoses of the discharged patients from the hospital are shown in Table II.

Khan *et al.* studied the pattern of psychiatric emergencies at a public sector hospital and found that 2.3% of the ED registered patients had psychiatric illnesses.⁶ The current study found that 6.7% of all the admitted patients through the ED had some sort of mental illness. Almost equal number of males and females were admitted in the present study. However, community based studies showed that common mental disorders have a prevalence of 25 - 57% in females and 10-25% in males.⁷ Depression is the most common diagnosis both at the time of admission from ED and discharge from hospital. It was observed that most common presentations of psychiatric illnesses were sleep disorder, aggressive behavior and somatic complaints. These findings are similar to another hospital based study by Shakya *et al.*⁸ In recent years, the number of in-hospital admissions at AKUH through the ED with psychiatric presentations is decreasing, however, in the hospital psychiatric consultation has increased in recent years due to several reasons. Many psychiatric patients in AKUH who are advised admission in the ED leave against medical advice due to financial and stigma related issues.

Retrospective analysis is the main limitation of the study. In Pakistan, there is a dire need to open new emergency psychiatric services to help the people in case of real emergent condition.

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