RESEARCH ARTICLE

Pattern of presentations at psychiatric emergency services of a public sector tertiary care hospital, Pakistan

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Abstract

Objective: To determine the pattern of presentations and characteristics of patients at a psychiatric emergency services facility.

Methods: The cross-sectional study was conducted in November 2016 at the Department of Psychiatry and Behavioural Sciences, Jinnah Postgraduate Medical Centre, Karachi, and comprised all patients presenting to the departmental emergency services. Data was documented on a pre-designed semi-structured proforma, and analysed using SPSS 22.

Results: Of the 316 cases, 162(51.3%) were males and 154(48.7%) were females. The overall mean age was 30.78+/-13.09 years (range: 8-80 years). Psychiatric emergencies comprised suicidal attempt, excitement, violence, altered sensorium, altered/ inappropriate behaviour and extrapyramidal symptoms / acute dystonia together constituting for 123(38.9%) of the total presentations, while there were 20(6.33%) cases of hysterical fits and 6(1.89%) with acute anxiety symptoms. Overall, 56(17.7%) subjects were found to have no psychiatric diagnosis, and 46(81.5%) of these were referred cases.

Conclusion: Non-emergency visits constituted high percentage of emergency presentation.

Keywords: Psychiatry, Emergencies, Referral, Violence, Dystonia. (JPMA 70: 2132; 2020)

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Introduction

Psychiatric emergencies in which an individual remains unable to refrain from behaving in a manner that could be dangerous to self or others may include acute excitement and agitation with self-destructive or suicidal behaviour.[1,2] Generally, prevalence rate of psychiatric emergencies is 10-60% in non-psychiatric medical facilities.[2] The challenging cases for emergency department (ED) physicians include suicidality and self-destructive behaviour accounting for up to 15% of psychiatric emergencies.[3,4] ED physicians need to have considerable knowledge and expertise as various conditions can present with psychomotor excitement and agitations, ranging from organic disease to a variety of mental illnesses which need to be managed accordingly.[5]

Patients with non-emergency psychiatric conditions also avail psychiatric emergency services (PES)[6-9] which might be because of the prevailing stigma[10] regarding mental illnesses that makes them consult psychiatrist in emergencies instead of regular psychiatric clinics. Similar pattern was noted in a study in Canada where only 57% of the visits to PES were pertinent and urgent.[11] Human resources in mental health profession are not expanding in proportion to increasing burden of mental illnesses and it is worse in developing countries like Pakistan.[12] In Pakistan, there are approximately 0.185 psychiatrist and 2.08 mental health outpatient facilities per 100,000 population.[13]

With changing time and de-institutionalisation of mental healthcare in the 21st century, population availing PES is getting more complex, ranging from 'revolving-door' patients to 'first-timers' which along with wrong referrals may hinder the quality treatment-based approach.[14]

Data about the pattern of patients presenting to PES of public-sector tertiary care hospitals in Pakistan is limited. The current study was planned to fill the gap by determining the pattern of presentations and characteristics of patients at PES of a public-sector tertiary care hospital.

Subjects and Methods

The observational cross-sectional study was conducted in November 2016 at the Department of Psychiatry and Behavioural Sciences, Jinnah Postgraduate Medical Centre (JPMC), Karachi, which is a public-sector tertiary care and teaching hospital providing 24-hour PES for both direct walk-ins and patients referred from other departments including the ED.

After approval from the institutional review board and

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consent from the subjects, data was collected through consecutive sampling by on-duty psychiatry residents, registering all patients presenting to PES. Those excluded were patients who presented to the outpatient department (OPD) of the setting which comprises two general OPDs comprising lasting 4.5 hours twice a week, and 2 hourly special clinics once a week. The particulars of all the cases were documented on a pre-designed semi-structured proforma. This included total number of patients presenting to PES, both direct walk-ins and psychiatric referrals from ED or other departments, their socio-demographic particulars like age, gender, educational status, occupation, marital status, mother tongue and residence with number of accompanied persons, source and reason of referral, chief presenting complaints and provisional psychiatric diagnosis according to International Classification of Diseases version 10 (ICD-10)[15] or Diagnostic and Statistical Manual of Mental Disorders version 5 (DSM-V).[16] Most of the patients were managed without hospitalisation and were advised to follow up in the OPD, while a few of them needed inpatient care and were admitted.

Tentative diagnosis was given by the residents-in-training and the senior supervisor using DSM-V criteria of the American Psychiatric Association 2013,[16] and ICD-1015. Broad diagnostic categories used were: organic psychosis comprising mental disorders due to a medical condition; substance use disorders; thought disorder including schizophrenia, schizotypal, delusional disorders, and acute psychotic disorder; mood disorders; neurotic disorders like anxiety, stress-related, dissociative and somatoform conditions; mental retardation / intellectual disability; deferred axis 1 diagnosis; and other diagnoses. Patterns of referral included internal and external referrals to the PES. Internal referrals consisted of patients who presented first to an ED physician who assessed the presented complaints to treat any medical problem that may need immediate attention. If the ED physician felt that psychiatric assessment was needed or a psychiatric consultation was requested, the PES was contacted. External referrals were directly referred to the PES and the following categories were used: referrals by healthcare professionals, like general practitioners or other hospitals, referrals by family members, friends, police referrals, and self-referrals i.e. on their own. Time at which the patient presented was also noted.

Data was analysed using SPSS 22. Central tendencies, including mean, range and standard deviation of quantitative variables age and number of attendants of patients were computed. Frequencies and percentages of all categorical variables were calculated. Categorical variables were analysed with chi-square test. $P<0.05$ was considered statistically significant.

Results

Of the 316 cases, 162(51.3%) were males and 154(48.7%) were females. The overall mean age was 30.78±13.09 years (range: 8-80 years). Across varying ages, 284(89.9%) were accompanied by mean number of attendants 2±1.35 (range: 1-9), while 32(10.1%) came on their own.

Cases usually presented during daylight hours from 9am to 6pm 250(79.2%), while 48(15.2%) presented between 8pm to 8am, and 17(5.4%) presented after midnight, presenting with altered sensorium 1(5.9%), somatic symptoms 5(29.4%), headache 5(29.4%), suicidal attempt 1(5.9%), altered / inappropriate behaviour 3(17.6%) and others 2(11.8%). Among these 17 cases, 6(35.3%) came directly to PES, while 11(64.7%) were referred cases, and, among them, 8(47.1%) had no psychiatric diagnosis.

The socio-demographic details of all the cases were noted and compared along gender lines (Table-1).

Overall, 182(57.6%) cases were internal referrals either from ED 103(32.6%) or departments like General Medicine 8(2.5%), General Surgery 2(0.6%), Neurology 17(5.4%), Neurosurgery 5(1.6%), Chest Medicine 1(0.3%) and Eye 1(0.3%), while 134(42.4%) came directly to the PES as external referrals, including 55(41.04%) who came as self-referral, 65(48.5%) were brought by family, 5(3.7%) by friends, 5(3.7%) had been referred by general practitioners and 4(2.98%) by other hospitals.

Reasons for referral included predominant psychiatric symptoms in 108(34.2%), no physical illness was detected in 23(7.3%), mental symptoms coexisted with physical illness in 29(9.2%), old case of psychiatric illness 27(8.5%), to rule out psychiatric illness 105(33.2%), organic illness insufficient to explain symptoms 6(1.9%) and detoxification or others 18(5.7%).

Various presenting complaints were noted (Table-2).

Provisional diagnosis at PES included mood disorders 104(32.9%), followed by neurotic disorders 62(19.6%) and thought disorders 41(13.0%) (Table-3).

Among cases of mood disorders, 18(5.7%) had bipolar disorder, 15(4.7%) maniac disorder and 71(22.5%) had depressive disorder. Substance use disorder included cannabinoids use 6(1.9%), opioid use 9(2.8%), benzodiazepine use 1(03%), and multiple substance use 7(2.2%). Thought disorders included cases of schizophrenia 25(7.9%), delusional disorder 1(0.3%) and acute psychotic disorder 15(4.7%). Neurotic disorder

Table-1: Socio-demographic characteristics with respect to gender (n=316).

Sociodemographic Characteristics of Patients	Male		Female		TOTAL		P Value
	N	%	N	%	N	%	
Age group (years)							
<19	28	17.3	24	15.6	52	16.5	
19 - 30	75	46.3	72	46.75	147	46.52	0.916
>30	59	36.42	58	37.66	117	37.02	
Marital status							
Single	80	49.38	46	29.87	126	39.87	
Engaged	1	0.62	2	1.3	3	0.95	0.001
Married	77	47.53	93	60.39	170	53.8	
Divorced / Widowed	4	2.47	13	8.44	17	5.38	
Educational Status							
Preliterate	54	33.33	78	50.65	132	41.77	
Primary	40	24.69	34	22.08	74	23.42	
Matric	41	25.31	25	16.23	66	20.88	
Intermediate	15	9.26	9	5.84	24	7.59	0.053
Graduation or above	11	6.79	7	4.54	15	4.75	
Others	1	0.62	1	0.65	2	0.63	
Occupational status							
Unemployed	48	29.6	11	7.14	59	18.67	
Student	15	9.26	13	8.44	28	8.86	
Household	2	1.23	117	75.97	119	37.65	
Unskilled worker/ Laborer	51	31.48	6	3.9	57	18.04	0.000
Skilled worker	39	24.07	3	1.95	42	13.29	
Professional / Doctor/ Engineer	1	0.62	3	1.95	4	1.26	
Police/ Ranger/ Law Enforcement Agencies	1	0.62	0	0	1	0.32	
Others	5	3.09	1	0.65	6	1.9	
Mother Tongue							
Urdu	73	45.06	65	42.21	138	43.67	
Sindhi	26	16.05	32	20.78	58	18.35	
Pashto	33	20.37	31	20.13	64	20.25	0.883
Punjabi	15	9.26	15	9.74	30	9.5	
Balochi	3	1.85	3	1.95	6	1.9	
Others	12	7.41	8	5.19	20	6.33	
Residence							
Karachi	135	83.33	138	89.6	273	86.39	
Sindh	13	8.02	10	6.49	23	7.28	
Punjab	3	1.85	2	1.3	5	1.58	
Baluchistan	2	1.23	2	1.3	4	1.26	0.518
KPK	7	4.32	2	1.3	9	2.84	
Gilgit Baltistan	1	0.62	0	0	1	0.32	
Others	1	0.62	0	0	1	0.32	
Total	162	100	154	100	316	100	

KPK: Khyber Pakhtunkhwa.

included stress-related disorders 9(2.8%), conversion disorder 31(9.8%), generalised anxiety disorder 12(3.8%), panic disorder 1(0.3%), obsessive compulsive disorder (OCD) 4(1.3%), somatoform disorder 5(1.3%), and others 1(0.3%).

People with intellectual disability 4(8.33%) presented aged 13-18 years, the age group in which 15(31.25%) cases presented with neurotic disorders, followed by others. Mood disorders 49(33.33%) and 45(38.46%) followed by neurotic disorder 31(21.09%) and 16(13.67) were found in age groups 19-30 years and >30 years respectively (p=0.180).

Overall, 54(17.09%) cases had no psychiatric illness; 44(81.5%) of them were referred cases, while 10(18.5%) had come directly to PES. Among 105(33.2%) cases that had been referred to rule out psychiatric illness, 40(38.1%)

Table-2: Complaints at the time of presentation. (n= 316).

Presenting Complaints	Male		Female		Total		P value
	N	%	N	%	N	%	
Altered/Inappropriate Behaviour	39	24.07	36	23.38	75	23.73	
Epileptic Fits	4	2.47	4	2.6	8	2.53	
Acute Anxiety Symptoms	2	1.23	4	2.6	6	1.89	
Acute Dystonia/ EPS	2	1.23	0	0	2	0.63	
Low mood	9	5.55	21	13.64	30	9.49	
Suicidal Attempt	2	1.23	2	1.3	4	1.26	
Headache	15	9.26	21	13.64	36	11.39	0.133
Somatic Symptoms	46	28.39	32	20.78	78	24.68	
Hysterical Fits	8	4.94	12	7.79	20	6.33	
Altered Sensorium	7	4.32	9	5.84	16	5.06	
Violence	9	5.55	4	2.6	13	4.11	
Excitement	9	5.55	4	2.6	13	4.11	
Other	10	6.17	5	3.25	15	4.75	
Total	162	100	154	100	316	100	

EPS: Extrapyramidal symptoms.

Table-3: Comparison of psychiatric disorders in both genders (n=316).

Provisional Diagnosis Made at PES	Male		Female		Total		P Value
	N	%	N	%	N	%	
Substance Use Disorder	23	14.2	0	0	23	7.28	
Thought Disorder	24	14.8	17	11.04	41	12.97	
Mood Disorder	47	29.01	57	37.01	104	32.9	
Neurotic	23	14.2	39	25.32	62	19.62	
Intellectual disability	6	3.7	4	2.6	10	3.16	0.000
Organic Psychosis	0	0	4	2.6	4	1.26	
Diagnosis Deferred	7	4.32	4	2.6	11	3.48	
Others	3	1.85	4	2.6	7	2.21	
No Psychiatric Diagnosis	29	17.9	25	16.23	54	17.09	
Total	162	100	154	100	316	100	

were found to have no psychiatric illness.

Statistically significant association was found between psychiatric diagnoses and gender (p=0001) as well as occupation (p=0.038).

Discussion

The number of people availing PES is increasing despite the prevailing stigma about mental illnesses[10] and this was also observed in the current study where people consulted PES even without having been referred to do so. The utilisation of PES could be the result of awareness of availability of such services through print and social media or other means, and not merely the knowledge about psychiatric illness, as in total 17% had no psychiatric issues out of which 81.4% had been referred cases from ED or other departments. The referrals were made by physicians and reflect their knowledge about psychiatry. Approximately one-third (33.2%) of the cases were referred to rule out psychiatric illnesses among which 38% didn't suffer from any psychiatric illness, which is similar to the findings of a study at a North America ED.[17]

A significant number (42.4%) presented to PES directly without referral, depicting decreasing stigma and increasing concern and awareness regarding psychiatric diseases in the general population.[18]

Among people availing psychiatric services, males (51.3%) were more than females (48.7%) which was similar to a study in India.[7] More utilization of PES by males could either be due to stigma related to the field that lead to underutilisation of services for psychiatric disorders among females, or convenience of seeking consultation after working hours as majority of the presented males (31.48%) were working as unskilled

worker or labourer while females were mostly confined to the households as housewives (75.97%). The same trend was found almost a decade back in a study[19] done in similar settings.

Most (46.5%) of the cases were young aged 19-30 years, which is similar to a study in India.[7] Overall, 49.38% males were single while 60.39% females were married who utilised PES, indicating that marriage, might be due to marital conflicts, is a risk factor for developing psychopathology among females compared to males in our part of the world.[20,21]

Around 90% cases were accompanied by varying number of attendants that shows good social and moral support system in our culture. Approximately 13% cases were from the other cities of the province and other provinces of the country, which indicates good communication skills of doctors with also a bit of knowledge about other native languages to develop a better doctor-patient relationship.

Overall, the most common presenting complaints were somatic symptoms 78(24.68) followed by altered or inappropriate behaviour 75(23.7%), which is similar to a study conducted in India.[22] Majority (23.38%) of females presented with altered or inappropriate behaviour, while somatic symptoms were presenting complaints of most males. Ratio of cases of suicide attempts that had been referred for evaluation to PES was same for both gender.

Mood disorder was the most common diagnosis at the PES, followed by neurotic, stress-related, anxiety and somatoform disorders which is in line with previous studies done in Karachi,[6,19] other cities of Pakistan[23] and also in the United States.[24] The finding, however, is contrary to studies in India[22] and Italy.[8] Substance use disorder was found exclusively among males, which was similar to a study[19] done at the same hospital, showing no change over the course of years.

Most of the adult population (19 years and above) that availed PES had mood disorders, while adolescents (<19 years) presented with neurotic disorders, including stress-related, conversion disorder, OCD and other anxiety disorders. A study in Pakistan also concluded that depression was more common among adult population[20] similar to a survey done in the US.[21]

PES was usually availed during daylight hours and only a small number (5.4%) presented after midnight among which majority (47.1%) had no psychiatric illness and were either referred for delirious states which usually got confused as psychiatric illnesses due to their behavioural symptoms or altered sensorium secondary to other medical conditions that needed to be investigated and treated accordingly.

True psychiatric emergencies included suicidal attempt (1.26%), unnecessary excitement (4.11%), violence (4.11%), altered sensorium (5.06%), altered / inappropriate behaviour (23.7%) and extrapyramidal symptoms / acute dystonia (0.63%) together constituting 38.9% of the total. Other situations that can also be considered emergencies were hysterical fits (6.33%) and acute anxiety symptoms (1.89%). Thus, only 47.09% cases were the actual emergency psychiatric visits, while others were non-emergency visits that could be delayed to be consulted in OPD. Similar results were found in a study conducted in Canada.[25] Among all pertinent and urgent cases, around 50-60% were diagnosed with an affective or a psychotic disorder, often with a suicidal content.[25]

There is need for standardised guidelines for ED physicians and psychiatrists based on primary evidence regarding management of psychiatric emergencies.[26]

The current study has its limitations. It's findings cannot be generalised as it is a single-setting study of short duration. Also, only main or primary psychiatric diagnoses were included, while dual or co-morbid diagnoses were not included.

Conclusions

Non-emergency visits constituted high percentage of PES presentation, which can hinder the process of providing services to actual emergencies. Besides, wrong referrals to PES can delay the management that would be needed in cases of non-psychiatric medical conditions. Knowledge regarding common psychiatric disorders among ED physicians is needed.

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