

# SPECTRUM OF PSYCHOTIC DISORDER IN PATIENTS PRESENTING WITH FIRST-EPIISODE PSYCHOSIS AT TERTIARY CARE HOSPITAL

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## ABSTRACT

### OBJECTIVE

To determine the frequency of different disorders in patients presenting with first-episode psychosis, admitted in a Tertiary Care Hospital, Karachi.

### STUDY DESIGN

retrospective cross-sectional study

### PLACE AND DURATION OF STUDY

The study was conducted at the Department of Psychiatry, Jinnah Postgraduate Medical Center (JPMC), Karachi in August 2016 on the patients admitted from 1st January 2015 to 31st December 2015.

### SUBJECTS AND METHODS

Spectrum of psychotic disorders which were previously diagnosed and labelled using International Classification of Diseases (ICD-10) were included in the study as the main variable of study. strict inclusion and exclusion criteria were applied after informed consent. Statistical analysis was done using SPSS version 20.

### RESULTS

Out of 124 patients meeting the inclusion criteria, 52 (41.9%) were males and 72 (58.1%) were females. Amongst the patients with first episode psychosis it was found that 12.9% had schizophrenia, 29% had acute and transient psychotic disorder, 37.9% had bipolar affective disorder, 10.5% had substance use disorder, 4% had depressive disorder with psychotic features, 1.6% had organic delusional disorder and 4% had mental and behavioral disorder associated with puerperium.

### CONCLUSION

First psychotic episode has a diverse psychopathology where majority of patients had bipolar affective disorder with psychotic features and warrants timely recognition and management.

### KEY WORDS

Psychotic disorder, Schizophrenia, Bipolar Affective Disorder.

## INTRODUCTION

Psychosis is a severe mental illness that is characterized by loss of touch with reality, hallucinations, delusions, impaired judgment, clouding of thinking, lacking motivation, abnormal affect, cognitive disturbance, disorganized speech and social withdrawal. It interferes with patients functioning and are very debilitating.<sup>1</sup> The annual incidence rate per 100,000 was 18.1 % for all first episode psychoses (FEP), predominantly in young age (20-29 years), with 3.8 affective (bipolar and depressive disorder) and 14.3 non-affective disorders (schizophrenia spectrum disorders, puerperal psychosis, substance use disorder and delusional disorders).<sup>2</sup> It may be due to underlying neurological, metabolic and adverse effect of pharmacologic intervention.<sup>3</sup>

Psychiatric disorders are misdiagnosed, underreported and undertreated in many developed (36-50%) and developing countries (85%) as the result of stigma and humiliation related to it.<sup>4</sup> Especially with patients with first psychotic episode lacking insight which hinders treatment, and their first psychiatric contact is admission to a hospital (57.2% incidence).<sup>5,6</sup> These admissions are mostly involuntary by close family members via emergency services usually for safety and isolation.<sup>7</sup> Furthermore, they have a chronic downhill course without treatment influenced by behavioral and social difficulties of patients.<sup>8</sup>

This study aims to determine the spectrum of FEP in patients presenting at a tertiary care hospital for our population, as there is paucity of local data. Nature of psychosis varies by geographic area, socioeconomic condition, race, age, demography and management by health care system. Thereby, rendering this data will be useful in establishing the local perspective on the basis of which an effective management plan can be developed for our community.

## SUBJECTS AND METHODS

### Participants

All patient admitted under the diagnosis of first episode psychosis from 1st January 2015 to 31st December 2015, were contacted in August 2016 via contact numbers provided by the attendants at time of admission, hence included in the study. Upon contact they were given the choice to follow up in person or on phone. Total 124 patients were contacted.

### Instruments

A detailed account was taken by the researcher, and data was collected in a predesigned semi-structured proforma, where age, gender, marital status, socioeconomic status according to monthly income, source of referral, onset of symptoms, symptoms at time of presentation, onset of treatment, type of antipsychotic prescribed compliance and resolution of symptoms were asked. The diagnosis of these patients was obtained from their previous record, which were according to ICD 10. Previously diagnosed cases of affective (bipolar and depressive disorder) and non-affective (Schizophrenia, acute and transient psychotic disorder, organic psychosis, puerperial psychosis and substance use disorder) first time psychosis were included in the study. Cases other than first psychotic episode admitted in the inpatient facility were excluded on the basis of history of previous admission to hospital for treatment of a psychotic disorder, antipsychotic medication and transient psychotic symptoms resulting from acute intoxication as defined by ICD-10.

### Procedure

Ethical approval was obtained from the institutional review board (IRB) and informed consent from the guardian of every patient who took part in this study was taken before data collection. After data were collected, statistical analysis was done using SPSS version 20. Quantitative data was presented as mean and standard deviation and qualitative data was presented as frequency and percentages. Post stratification chi square test was done and P value  $\leq 0.05$  was considered significant.

## RESULTS

During the study period, 124 patients admitted with first-episode psychosis. Among these 52 (41.9%) were males while the rest were females 72 (58.1%), giving a male to female ratio of 0.72:1. Their ages ranged from 11 to 80 years with a mean age of 27.24 +11.39 years. The age distribution showed that the majority of the patients were under 40 years of age. Out of these, 70 (56.5%) were married and majority belonged to lower socioeconomic class 86 (69.4%).

Most patients were admitted through emergency services at a psychiatric facility 66 (53.2%), with sudden onset of symptoms 67 (54%) with predominating psychotic features 69 (55.6%) as mentioned in Table 1. The follow-up was done in person for 1 patient (0.08%), on phone 110 (88.7%) and 13 (10.5%) didn't respond on contact (Table 1). Among these 90 (72.6 %) reported to have complete resolution of symptoms majorly on first generation antipsychotic 73(58.9%). Compliance was reported in 54 (43.5%) patients (Table 1).

Amongst the patients with first episode psychosis it was found that 12.9% had schizophrenia, 29% had acute and transient psychotic disorder, 37.9% had bipolar affective disorder, 10.5% had substance use disorder, 4% had depressive disorder with psychotic features, 1.6% had organic delusional disorder and 4% had mental and behavioral disorders associated with puerperium (Table 2). It was also observed that males were more non-compliant than females (Table 3).

**Table 1**

Characteristics of Patients Presenting with First-episode Psychosis (n=124).

Age	10-20 Years	28 (22.6%)
	21-30 Years	66 (53.2%)
	31-40 Years	14 (11.3%)
	41-50 Years	10 (8.1%)
	51-60 Years	04 (3.2%)
	61-80 Years	02 (1.6%)
Gender	Male	52 (41.9%)
	Female	72 (58.1%)
Source of Referral	Emergency	66 (53.2%)
	OPD	58 (46.8%)
Onset of Symptoms	Gradual	57 (46%)
	Sudden	67 (54%)
Type of Symptom At Presentation	Mood Symptoms	55 (44.4%)
	Psychotic Syntoms	69 (55.6%)
Onset of Treatment.	Early	48 (38.7%)
	Late	76 (61.3%)
Antipsychotic Prescribed.	First Generation Antipsychotics	73 (58.9%)
	Second Generation Antipsychotics	38 (30.6%)
	Long Acting Depot	13 (10.5%)
Resolution of Symptoms	Complete	90 (72.6%)
	Partial	34 (27.4%)
Compliance	Compliant	54 (43.5%)
	Non-Compliant	21 (16.9%)
	Compliant but Stopped After Resolution of Symptoms	35 (28.2%)
	Non-Responders	14 (11.3%)
Follow-up	Follow-up in Person	01 (0.8%)
	Follow-up on Phone	110 (88.7%)
	No-follow-up	13 (10.5%)
Marital Status	Married	54 (43.5%)
	Unmarried	70 (56.5%)
Socioeconomic Status	Lower Class	86 (69.4%)
	Middle Class	34 (27.4%)
	Upper Class	04 (3.2%)

**Table 2**

Spectrum of Psychotic Disorder According to ICD 10 (n=124)	
Schizophrenia	16 (12.9%)
Acute and Transient Psychotic Disorder	36 (29%)
Bipolar Affective Disorder	47 (37.9%)
Substance Usedisorder	13 (10.5%)
Depressive Disorder with Psychotic Features	05 (4%)
Organic Delusional Disorder	02 (1.6%)
Mental and Behavioral Disorder Associated with Puerperium	05 (4%)

Table 3

Variable	Mono drug (n = 52)	Poly drug (n = 52)	t	95%CI	
	M (SD)	M (SD)		LL	UL
Drug Addiction	8.44 (1.53)	9.27 (.79)	-3.44**	-1.30	-.350
Overall aggression	74.85 (10.05)	123.83 (8.55)	-26***	-52.6	-45.3
Physical aggression	26.21 (4.76)	37.40 (4.61)	-12***	-13.0	-9.36
Verbal aggression	11.88 (1.75)	19.96 (2.52)	-18***	-8.92	-7.23
Anger	16.02 (2.88)	30.56 (2.55)	-27***	-15.5	-13.4
Hostility	20.73 (4.61)	35.90 (3.55)	-18***	-16.7	-13.5
Difficulty emotion regulation	117.94 (9.26)	123.83 (5.08)	-4***	-2.97	-8.79
Non-accepted	21.00 (3.26)	22.04 (1.96)	1.96	-.009	2.08
Goal	17.65 (1.99)	18.40 (1.27)	2.28*	.098	1.40
Impulse	20.13 (1.83)	24.10 (2.97)	-8***	-4.92	-2.99
Awareness	12.17 (2.29)	20.48 (1.56)	21***	7.54	9.07
Strategies	26.10 (2.10)	27.48 (2.86)	-2.8**	-2.36	-.406
Clarity	15.54 (2.57)	16.67 (1.93)	2.53*	.248	2.02

Note. CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit, df = 102

## DISCUSSION

Psychotic disorders often present a diagnostic challenge with putative diagnostic "boundaries" to first-episode psychosis. This study from Pakistan examines the spectrum of psychotic disorder in patients with first psychotic episodes. Our study revealed that amongst these patients with first-episode psychosis 12.9% had schizophrenia, 29% had acute and transient psychotic disorder, 37.9% had bipolar affective disorder, 4% had depressive disorder with psychotic features, and 1.6% had delusional disorder, as compared with 75%, 61.1%, 96.5%, 70.1% and 72.7% respectively in a review article from Brazil.<sup>9</sup>

Majority of the cases 66 (53.%) were in the age group of 21-30 years, as compared with SEPEA study where highest incidence rates for men and women were before 20 years of age.<sup>10</sup> A review article stated lesser incidence of first episode of psychosis in female while our study showed female predominance 58.1%.<sup>11</sup> Majority of the patients were referred from the emergency 77% as compared with a study in Brazil where 70% of FEP presented in emergency services.<sup>12</sup> Patient presented in this study were mostly single; a study conducted in Saudia Arabia showed being single was associated with shorter duration of untreated psychosis.<sup>13</sup> Also in a systematic review, presentation at emergency setting was predominating.<sup>14</sup> Patients presented with psychotic symptoms (55.6%) more than mood symptoms (44.4%) as compared with an Iranian 12 month follow-up study showing 31.1% bipolar affective disorder and 9.2% major depressive disorder.<sup>15</sup> As in this study help was sought with delay in 61.3% of the patients similar to other studied due to stigma.<sup>16-18</sup> Most patients received first generation antipsychotics with 58.9%, having complete resolution of symptoms 72.6%, with mostly being compliant 43.5% as compared to the studies.<sup>19-22</sup> In this study most of the patient belonged to the lower socioeconomic group (69.4%).<sup>9</sup> It was evident from the results that females (7.26%) were less non-compliant than males (9.68%) which is similar to a Danish study in which females were more compliant.<sup>23</sup>

This study included all the patients who were admitted in the mental health facility in year 2015 and were contacted in 2016. As the follow up was done on phone and patients or their attendants were given the option to follow up on phone in person, mostly followed up on phone as they belong to far flung areas of Pakistan, so it was difficult to check and maintain confidentiality. They were ask to either follow up in person or report to a nearby mental health facility which could not be ensured due to contact via phone.

## CONCLUSION





First psychotic episode is spread over a diverse spectrum and warrants timely recognition and management. Majority of patients presenting with first psychotic episode had bipolar affective disorder with psychotic features and a delay was observed in availing psychiatric services. Which may lead to difficulty in diagnosis and hence in adequate treatment; it may also deteriorate the prognosis. Finally, treatment strategies should focus on fostering awareness about mental illness, timely treatment and families should be provided support in conjunction with pharmacotherapy and psychotherapy.

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