

## PATTERN OF PSYCHOTIC DISORDERS IN HOSPITALIZED PATIENTS OF COMBINED MILITARY HOSPITAL, LAHORE

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### ABSTRACT

**Objective:** To determine the frequency of psychotic disorders in patients admitted in psychiatry ward, Combined Military Hospital, Lahore.

**Study Design:** Cross sectional study.

**Place and Duration of Study:** Combined Military Hospital Lahore, from Dec 2016 to May 2017.

**Methodology:** A total of 152 patients between 18-60 years of age, both male and female, meeting the inclusion and exclusion criteria, admitted in Psychiatry ward, Combined Military Hospital Lahore; were enrolled in the study after obtaining their informed consent. Patients were interviewed through Present state examination and the diagnosis was made on the basis of International Classification of Diseases (ICD) version 10. The data was recorded on the study proforma.

**Results:** A total of 152 cases of psychotic illness, 98 (64.5%) were male with mean age  $\pm$  SD of  $33.79 \pm 7.907$  years, while 54 (35.5%) were females with mean age  $\pm$  SD of  $31.72 \pm 8.254$  years. The most common diagnosis was schizophrenia (36.8%) followed by mania with psychotic features (21.7%) and unipolar major depressive disorder with psychotic features (14.5%). Other diagnosis included substance induced psychosis (11.8%), post-partum psychosis (7.9%) and delusional disorder (7.2%).

**Conclusion:** The frequency of non affective psychosis is high as compared to affective psychosis. Moreover, puerperal psychosis and the substance use disorders contribute to a major portion.

**Keywords:** Admitted, Diagnosis, Frequency, Psychotic inpatients.

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### INTRODUCTION

The world health organization (WHO) defines mental health as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stressors of life, can work productively and fruitfully, and is able to make contribution to his or her community<sup>1</sup>. Although Schizophrenia and other psychotic disorders generally afflict 1% of population yet, they are among the most severe and disabling amongst all medical and surgical illnesses<sup>2</sup>. Psychotic disorders cause enormous suffering for patients and their family members. As the average age for the onset of many psychotic disorders is at the most critical period of educational, occupational and social development, their consequences often lead to life-long disability. These patients also have increased physical morbidity and mortality compared with population without a psychotic disorder<sup>3-5</sup>. Economic costs to the society comprise scarcity, expensiveness of treatment and loss of productivity. The cost of psychotic disorders was estimated to be the third largest of the brain diseases in Europe in 2010, after mood disorder and dementia<sup>6</sup>.

The prevalence of psychotic disorders is on

the rise worldwide. In one of the studies conducted in Finnish general population, the lifetime prevalence of any DSM-IV psychotic disorder was 3.5%; Non-affective psychoses were more common than affective psychoses; Substance-induced psychotic disorders were common among working aged men and psychotic disorder due to general medical condition among women aged 65 years or above<sup>7</sup>. In a study from England, although depression and anxiety were the most common reasons for psychiatric admission, accounting for 29.6% of all psychiatric inpatients, schizophrenia and other psychotic disorders accounted for 26% of the admissions<sup>8</sup>. Schizophrenia, the most common of all psychotic disorders, being 50.1%, 30.5% and 51% in Nepal, Nigeria & Kenya, respectively<sup>9,10</sup>.

The percentage of common psychotic disorders in hospitalized patients thus varies among different countries. At present limited data is available in our settings, therefore this study will supplement the already existing data from the region and will be useful in studying the changes in the hospital admission trends in the future, as well. Moreover, it will provide direction for the development of the future psychiatric facilities that will enhance patient care.

### METHODOLOGY

This cross sectional study conducted at Combined Military Hospital (CMH), Lahore, from Dec 2016 to

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May 2017. Sample size was calculated by using the WHO sample size calculator. Confidence level=95%, population proportion=26%, precision=10% and calculated sample size=74 patients atleast parameters were used in this study.

A total of 152 patients between 18-60 years of age, both male and female, who had psychosis meeting the ICD-10 diagnostic criteria, admitted in Psychiatry ward, CMH Lahore during the study period; were enrolled in the study through consecutive non-probability sampling, after obtaining their informed consent. The data was recorded on the study proforma. Patients having history of any organic disorder leading to psychosis like Space occupying lesion, metabolic disorder or infective psychosis and co morbidities (diabetes mellitus, hypertension, ischemic heart disease, epilepsy, asthma, hyperthyroidism and hypothyroidism) were excluded from the study. After taking permission from the ethics committee of CMH, Lahore and Informed consent from the participants' demographic data was collected using a structured questionnaire. Consultant psychiatrist diagnosed the patients as per the criteria of International Classification of Diseases (ICD) version 10. Psychotic disorders were recorded on the study proforma.

Data was analyzed using SPSS-20. Descriptive statistics was used to calculate qualitative and quantitative variables. Qualitative variables like gender, marital status, education, occupation and psychotic diagnosis were measured as frequencies and percentages. Quantitative variables like age, number of siblings, number of children and duration of hospital stay were presented as mean and standard deviation. Effect modifiers like age, gender, education, marital status and occupation were controlled by stratification and then post stratification chi square test was applied. A *p*-

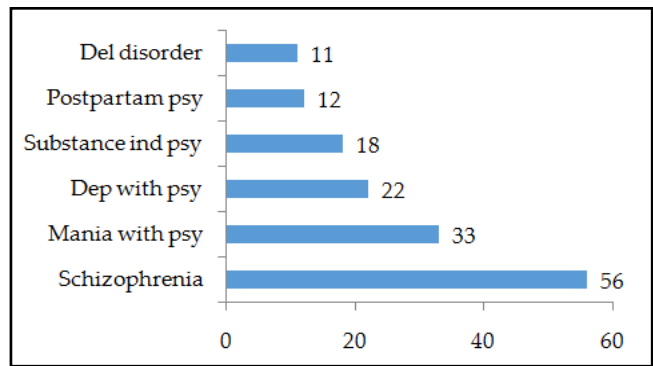
value  $\leq 0.05$  was considered significant.

**RESULTS**

Patients were distributed according to age showing that 126 (82.9%) were between 18-40 years while 26 (17.1%) were between 41-60 years of age, mean  $\pm$  SD was calculated as  $33.05 \pm 8.066$  years. Ninety eight (64.5%) were males while 54 (35.5%) were females. A total of 50 (32.9%) were uneducated while 102 (67.1%) were educated.

The patients were grouped according to marital status showing 72 (47.4%) unmarried, 65 (42.8%) married, 11 (7.2%) divorced and 4 (2.6) were widower.

Percentage of patients diagnosed with schizophrenia were 56 (36.8%) while 33 (21.7%) were of mania with psychotic features. Twenty two (14.5%) patients were of depressive disorder with psychotic features, 18 (11.8%) of substance induced psychosis, 12 (7.9%) of puerperal psychosis and 11 (7.2%) were of delusional disorder (figure).



**Figure: Pattern of psychotic disorders.**

Age was an effect modifier for substance induced psychosis (*p*=0.040). Gender was an effect modifier for depression with psychotic features (*p*=0.001). Marital

**Table: Effect modifiers in psychotic disorders.**

		Depression with Psychotic Features (n=22)		Mania with Psychotic Features (n=33)		Substance Induced Psychosis (n=18)	
		No. of pts	<i>p</i> -value	No. of pts	<i>p</i> -value	No. of pts	<i>p</i> -value
Age Groups	18-40 yrs (n=126)	16	0.171	29	0.390	18	0.040
	41-60 yrs (n=26)	6		4		0	
Gender	Male (n=98)	6	<0.001	21	0.910	15	0.075
	Female (n=54)	16		12		3	
Educational Status	Educated (n=102)	15	0.907	26	0.106	5	<0.001
	Illiterate (n=50)	7		7		13	
Marital Status	Unmarried (n=72)	4	0.946	17	0.028	12	0.186
	Married (n=65)	14		13		5	
	Divorced (n=11)	3		2		0	
	Widowed (n=4)	1		1		1	

status was an effect modifier for mania with psychotic features ( $p=0.001$ ). Educational status was an effect modifier for substance induced psychosis ( $p=0.028$ ) (table).

## DISCUSSION

In this study diagnosis of the patients was recorded as 56 (36.8%) were schizophrenia, 33 (21.7%) were mania with psychotic features, 22 (14.5%) were for depressive disorder with psychotic features, 18 (11.8%) were substance induced psychosis, 12 (7.9%) were for puerperal psychosis and 11 (7.2%) were delusional disorder.

According to similar study determined the pattern of psychotic disorders in a tertiary care hospital in Pakistan and found that schizophrenia (34%) was the most frequent disorder followed by mania with psychotic features (20%), major depressive disorder with psychotic features (13%), delusional disorder (8%) and substance induced psychosis (3%)<sup>11,12</sup>. The results in our study are similar in a way that non affective psychoses constitute a major portion. Our study also shows that the frequency of drug induced psychosis has increased, which may be due to increased utilization of the psychiatric services by such patients or an increased prevalence of substance use disorders over the years. It can also be due to variations in the institutional policies of admission and inter clinician differences. Further research is needed in this aspect to gain more clarity and vigilance<sup>13,14</sup>.

Rajji *et al* found that schizophrenia (32%) and mania with psychosis (16.9%) were the commonest disorders in their study sample followed by depressive disorder with psychotic features (11.5%). The results in our study are fairly similar to the study conducted earlier in Pakistan showing that the affective disorders constitute the major proportion of admissions due to psychotic symptomatology<sup>15</sup>.

A locally published similar study found that schizophrenia (35%), bipolar disorder with psychosis (20%), major depressive disorder with psychotic features (16%) and delusional disorder (8%) were the common disorders in the admitted patients. The findings in our study are similar to this as well<sup>16,17</sup>.

A similar study conducted in UK found that schizophrenia (42.53%) was the commonest reason of admission followed by affective psychosis (21%) delusional disorder (5%) and substance induced psychosis (4.5%). When compared to this, our study has lower frequency of schizophrenia, which may be due to better outcome

of schizophrenia in developing countries or better social support for these patients in our part of the world<sup>18</sup>.

## CONCLUSION

The frequency of non affective psychosis is high as compared to affective psychosis. Moreover, puerperal psychosis and substance use disorders contribute to a major portion of admitted patients that requires specialized detoxification and rehabilitation facilities for such patients, which are lacking in our current psychiatric setups.

## CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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