ORIGINAL ARTICLE

A PROFILE OF PATIENTS ATTENDING A PSYCHIATRIC OUTPATIENT CLINIC

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ABSTRACT

OBJECTIVE
To ascertain the frequency of various psychiatric disorders in outpatient setting and examine a profile of patients presenting with these disorders.

STUDY DESIGN
Exploratory Study.

PLACE AND DURATION OF STUDY
The study took place in the department of Psychiatry, Shalamar Hospital Lahore during May, 2015 to April, 2016.

SUBJECTS AND METHODS
2666 patients attending outpatient clinic at the department of Psychiatry, Shalamar Hospital Lahore were included in the study. Each patient was examined by a consultant psychiatrist in routine clinical setting and diagnosed according to the ICD-10 criterion. Descriptive statistics and Chi square analysis was used to compute frequency of psychiatric disorders and to compare diagnostic categories on the basis of age, gender and season of the visit respectively.

RESULTS
Overall male to female ratio was almost 40:60. The most frequent group of disorders to present was neurotic, stress related and somatoform disorders (48.1%) followed by mood disorders (32.2%) and schizophrenia spectrum disorders (7.5%). The most prevalent individual diagnosis was depressive disorder (24.5%) followed by panic disorders (14.4%) and adjustment disorder (11.5%). Patients were most likely to present in the 3rd decade of their life (21-30 years of age). Females were significantly more likely to be diagnosed with depressive disorders, dissociative disorder, somatoform disorders and adjustment disorders. Generalized anxiety disorder, depressive disorder and somatoform disorder patients were more likely to present in the spring season. Seasonal variability was noted for other disorders as well.

CONCLUSION
Our findings are generally in line with previous literature findings. It is interesting to note that that gender, age and season patterns of patient presentation are similar to what has been observed in other regions of the world despite the wide cultural and geographical variation.

KEY WORDS
Prevalence, Age, Gender, Season, Psychiatric disorder

INTRODUCTION

The world health organization defines mental health as a positive state of well being in which an individual can cope with normal stressors of life, realizes his or her own potential, can work productively and fruitfully, and is able to make a contribution to his or her community[1]. Psychiatric disorders have been understood as psychological or behavioral patterns that occur in an individual and lead to clinically significant distress or impairment. This reaction is not an acceptable response to common stressors and reflects an underlying psychobiological dysfunction[2]. The global burden of disease study3 first identified that psychiatric disorders were grossly underestimated previously in terms of their impact and noted that they accounted for more than 11 % of the disease burden worldwide.

National survey of mental health and well being conducted in Australia in 2007 found that almost half (45.5%) of the Australian population suffered from a mental disorders at some point in their lives. One fifth (20%) of the population aged 16-85 experienced a mental disorder in the previous 12 months. One in 16 (6.2%) had affective (mood) disorders, one in seven (14.4%) had anxiety disorders; and one in 20 (5.1%) had substance use disorders.4 Coming closer to home, all India prevalence rates of five specific psychiatric disorders were obtained by analyzing fifteen epidemiological studies on psychiatric morbidity. The national prevalence rates for 'all mental disorders' was found to be 70.5/1000 for rural population, 73/1000 for the urban population and 73/1000 for the rural and urban population combined5.

The purpose of the current study is to get a clearer picture of the presentation patterns of various psychiatric disorders in the outpatient settings. Hopefully with the help of other studies, both hospital and community based, we would be able to obtain the frequency of various psychiatric disorders in Pakistan and the associated factors in a more comprehensive manner.

PARTICIPANTS AND METHODS

Our research was conducted in the outpatient department of Shalamar hospital, Lahore. All 2666 patients presented to the

outpatients department for a specified one year period (1st May 2015 to 30th April 2016) were included in the study. All patients were interviewed and diagnosed by a consultant psychiatrist according to diagnostic criteria of ICD 10. Patient's data was initially recorded on the i-sqaure software used in the hospital for routine clinical record keeping and prescription writing. The data for the one year specified period was retrieved by requesting the hospital authorities and then was analyzed using SPSS version 20. Multiple entries for a single patients were deleted (so that each patient was counted only once regardless of the number of the visits by the patient). Descriptive statistics was used to calculate frequencies and percentages of age, gender, residence, season and diagnostic categories. Chi square analysis was used to compare diagnostic categories on the basis of age, gender and season of the visit. To check for the seasonal variability in the presentation of the psychiatric disorders, we grouped the time of presentation of the patients into four seasons of three months each: Summer (May, June, and July), Autumn (August, September and October), Winter (November, December and January) and Spring (February, March and April). For age group analysis, only age groups 10-80 years of patient was included as there were too few patients in age groups 0-10 and 80-100 for a meaningful statistical comparison.

A departmental committee conducted an ethics review and approved the study as no ethical conflicts were identified in the design and conduct of the study. All the activities involved were in routine clinical settings and no identifiable patient information was to be disclosed at any stage.

RESULTS

Results showed that a total of 2666 patients presented to the out patient department, most of the patients were between 21-40 years of age, female, and presented in the spring season (details are provided in Table 1.

Table 1
Age distribution of patients attending Psychiatric outpatient clinic at Shalamar Hospital

Age Range (Years)	*Female*	*Male*	*f*	*%*
1-10	20	36	56	2.1
11-20	191	153	344	12.9
21-30	463	327	790	29.6
31-40	417	257	674	25.3
41-50	285	142	427	16.0
51-60	117	75	192	7.2
61-70	60	47	107	4.0
71-80	25	32	57	2.1
81-90	8	8	16	0.6
91-100	2	1	3	0.1

Note: N=2666, f= Frequency, %=Percentage

Table 4 showed a summary of the statistical results using the chi-square test as we compared how likely the patients were to present for a particular age group. Patients of bipolar affective disorder, generalized anxiety disorder, panic disorder, mixed anxiety and depressive disorder, obsessive compulsive disorder, adjustment disorder, specific personality disorder, and schizophrenia were more likely to present in the 3rd decade of their life (20-30 years of age). Patients suffering from depressive disorder were significantly likely to present in their 4th decade (30-40 years of age) while for patients of dissociative disorder the most likely time of presentation was from 11-20 years. For patients suffering from somatoform disorder, the most likely time of presentation was in the 5th decade of their life (40-50 years).

Table 2
Gender, Residence and Season distribution of patients attending Psychiatric outpatient clinic at Shalamar Hospital

	F	*%*
Gender		
Female	1588	59.6
Male	1078	40.4
Residence		
Lahore	2616	98.1
Out of Lahore	50	1.9
Season		
Spring	758	28.4
Summer	588	22.1
Autumn	688	25.8
Winter	632	23.7

Note: N=2666, f= Frequency, %=Percentage

Table 5 gave the comparison on gender and psychiatric disorders. Females were significantly more likely to be diagnosed with depressive disorder, dissociative disorder, adjustment disorder and somatoform disorder. Table 6 showed the comparison on the basis of season of presentation. Depression and generalized anxiety disorder patients were more likely to present in our outpatients in the spring season and least likely to present in winter. Somatoform disorder patients were significantly more likely to present in spring season and least likely to present in summer whereas patients of adjustment disorder were significantly more likely to present in the winter season and least likely to present in the spring season.

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Table 3
Diagnostic classification of patients attending Psychiatric outpatient clinic at Shalamar Hospital

ICD 10 Diagnostic Groups/ Categories	ICD-10 Code	Female	Male	Total	% of Total
Organic, including symptomatic, mental disorders	F00-F09				2.8
Dementia in Alzheimer's disease	F00	12	14	26	1.0
Vascular dementia	F01	6	9	15	0.6
Delirium, not induced by alcohol and other psychoactive substances	F05	3	6	9	0.3
Other mental disorders due to brain damage and dysfunction and to physical disease	F06	7	8	15	0.6
Personality and behavioral disorders due to brain disease, damage and dysfunction	F07	4	5	9	0.3
Mental and behavioral disorders due to psychoactive substance use	F10-F19				1.5
Mental and behavioral disorder due to use of alcohol	F10	0	2	2	0.1
Mental and behavioral disorder due to use of opioids	F11	2	9	11	0.4
Mental and behavioral disorder due to use of cannabinoids	F12	2	13	15	0.6
Mental and behavioral disorder due to use of sedatives or hypnotics	F13	1	3	4	0.2
Mental and behavioral disorder due to use of other stimulants, including caffeine	F15	0	1	1	0.0
Mental and behavioral disorder due to use of hallucinogens	F16	0	2	2	0.1
Mental and behavioral disorder due to use of tobacco	F17	0	1	1	0.0
Mental and behavioral disorder due to multiple drug use and use of other psychoactive substances	F19	1	2	3	0.1
Schizophrenia, schizotypal and delusional disorder	F20-F29				7.5
Schizophrenia	F20	76	88	164	6.2
Acute and transient psychotic disorders	F23	7	14	21	0.8
Schizoaffective disorders	F25	5	7	12	0.5
Mood disorders	F30-F39				32.3
Bipolar affective disorder	F31	58	78	136	5.1
Mild-Moderate depressive episode	F32.0-F32.	466	187	653	24.5
Severe depressive episode with-without psychotic symptoms	F32.2-F32.3	40	31	71	2.7
Neurotic, stress related and somatoform Disorders	F48				48.1
Phobic anxiety disorders	F40	7	13	20	0.8
Panic disorder	F41.0	203	180	383	14.4
Generalized anxiety disorder	F41.1	53	38	91	3.4
Mixed anxiety and depressive disorder	F41.2	25	14	39	1.5
Obsessive-compulsive disorder	F42	83	68	151	5.7
Reaction to severe stress and adjustment disorder	F43	217	99	316	11.9
Dissociative disorders	F44	115	25	140	5.3
Somatoform disorders	F45	90	46	136	5.1
Behavioral syndromes associated with physiological disturbances and physical factors	F50-F59				0.5
Anorexia nervosa	F50.0	1	0	1	0.0
Non organic sleep disorders	F51	2	11	13	0.5
Disorders of adult personality and behavior	F60-F69				1.5
Specific personality disorders	F60	23	16	39	1.5
Mental retardation	F70-F79				1.6
Mild mental retardation	F70	8	10	18	0.7
Moderate mental retardation	F71	12	12	24	0.9
Severe mental retardation	F72	1	0	1	0.0
Behavioral and emotional disorders with onset usually occurring in childhood and adolescence	F90-F98				1.7
Hyperkinetic disorder	F90	2	1	3	0.1
Conduct disorders	F91	3	8	11	0.4
Emotional disorders with onset specific to childhood	F93	4	18	22	0.8
Tic disorders	F95	1	0	1	0.0
Other behavioral and emotional disorders with onset usually occurring in childhood and adolescence	F98	2	8	10	0.4

Note: N=2666, f= Frequency, %=Percentage

Table 4
Chi square test of psychological disorders on the basis of age (10-80 years)

	$\chi 2$	*df*	*Min.*	*Max.*
Bipolar affective disorder	67.61***	6	61-70	21-30
Depressive episode Mild-Moderate	259.62***	6	71-80	31-40
Generalized Anxiety disorder	45.28***	6	11-20	21-30
Panic disorder	299.82***	6	71-80	21-30
Obsessive compulsive disorder	119.36***	5	61-70	21-30
Reaction to severe stress and adjustment disorder	253.66***	6	71-80	21-30
Dissociative disorders	92.70***	5	61-70	11-20
Somatoform disorders	72.50***	5	61-70	41-50
Specific personality disorder	37.79***	4	61-70; 51-60	21-30
Mixed anxiety and depressive disorder	13.76***	5	61-70	21-30
Schizophrenia	134.43***	6	71-80	21-30

*Note: df= degree of freedom, X2=Chi Square Value, Min= minimum frequency (decade wise), Max= frequency (decade wise), *p < .05, **p < .01, ***p < .001*

Table 5
Chi square test of psychological disorders on the basis of gender

	χ^2	*df*	*Male*	*Female*
Bipolar affective disorder	2.94	1	78	58
Depressive episode Mild-Moderate	119.20***	1	187	466
Generalized Anxiety disorder	2.47	1	38	53
Panic disorder	1.38	1	180	203
Obsessive compulsive disorder	1.49	1	68	83
Reaction to severe stress and adjustment disorder	44.06***	1	99	217
Dissociative disorders	57.85***	1	25	115
Somatoform disorders	14.23***	1	46	90
Specific personality disorder	1.25	1	16	23
Mixed anxiety and depressive disorder	3.10	1	14	25
Schizophrenia	.61	1	86	76

*Note: df= degree of freedom, X2=Chi Square Value, *p < .05, **p < .01, ***p < .001*

Table 6
Chi square test of psychological disorders on the basis of season

Bipolar affective disorder	5.29	3	Summer	Spring
Depressive episode Mild-Moderate	11.28*	3	Winter	Spring
Generalized Anxiety disorder	30.71***	3	Winter	Spring
Panic disorder	3.80	3	Autumn	Spring
Obsessive compulsive disorder	.65	3	Spring	Autumn
Reaction to severe stress and djustment disorder	30.91***	3	Spring	Winter
Dissociative disorders	2.68	3	Autumn	Winter
Somatoform disorders	18.41***	3	Summer	Spring
Specific personality disorder	2.74	3	Summer	Autumn
Mixed anxiety and depressive disorder	11.35*	3	Summer	Spring
Schizophrenia	.12	3	Summer	Spring

*Note: df= degree of freedom, X2=Chi Square Value, Min= minimum frequency, Max= Maximum frequency, *p < .05, **p < .01, ***p < .001*

and least likely to present in summer whereas patients of adjustment disorder were significantly more likely to present in the winter season and least likely to present in the spring season.

DISCUSSION

The most frequent diagnostic groups in our study were neurotic stress related and somatoform disorders (48.1%) followed by mood disorders (32.2%) and schizophrenia spectrum disorders (7.5%). Very similar findings have been reported in the psychiatric outpatients of a tertiary care hospital in India, in which the diagnostic distribution of the patients was 38% for neurotic, stress related and somatoform disorders, 18% for mood disorders and 6.3% for schizophrenia spectrum disorders[6]. In case of individual disorders, most frequent disorder was mild-moderate depressive episode (24.5%) which constituted almost one quarter of total patient population. This finding is somewhat similar to what has been reported by Hussain et al. (2011). They found a prevalence rate of 35.8% for depression for people living in Pakistan as compared with 9% in people of Pakistani origin living in the UK[7]. Depression was also found to be the most frequent disorder in other studies conducted on patients referred to psychiatric services in Pakistan[8], patients referred to psychiatric services in India[9], and in a community survey in Iran[10].

The frequency of panic disorder in our study was 14.4%. This is high, keeping in view the prevalence in the community studies[10, 11]. The frequency of schizophrenia in our study was 6.2%. Some other studies have reported similar findings e.g. the prevalence of schizophrenia has been reported as 5.5% in patients referred to psychiatric liaison service in Pakistan[8], 5% in patients referred to psychiatric liaison services in India[9] and 4% in psychiatric outpatients in India agian[6]. The frequency of dissociative disorder patients in our study was 5.3%. This has been reported previously as 13.3% in referred patients6, 7% in patients referred to psychiatric services in India[9] and 4.2% in psychiatric outpatients[6].

The frequency of somatoform disorder in our research was 5.1%. This has been reported previously as 6% in patients referred to a psychiatric service in Pakistan8 and 2.4% in patients attending a psychiatric outpatient clinic in a tertiary care hospital in India6. An important finding of our study was that females were significantly more likely to be diagnosed with depressive disorder. This is a robust finding and has been reported repeatedly in previous studies. For example, a systematic review of 20 studies on the prevalence and the risk factors associated with anxiety and depressive disorders confirmed the female gender as being one of the risk factors for developing anxiety and depressive disorders.[12] Similarly the point prevalence of non psychotic psychiatric disorders was found to be 66% in women and 25% in men in rural Punjab[13]. Similar findings (60% prevalence rate of depression for women, 45% for men) have been reported from the tribal areas of Pakistan[14], from a village in Sind[15] and from a village near Islamabad[16]. However, while other studies have documented an increased likelihood of having anxiety disorders for females[12,15,17], our study found no significant difference between the two genders in regard to anxiety disorders (panic disorder, generalized anxiety disorder, obsessive compulsive disorder mixed anxiety and depressive disorder).

Present research compared patients in different age groups to find out whether certain disorders were more likely to present in certain

age group. Patients suffering from depressive disorders were most likely to present in their 4th decade (30 to 40 years). King et al, 2008 reported that men aged 30 to 50 and women aged 18 to 30 had the highest prevalence of depression in a study of general practice attendees in six European countries18. For panic disorder, the most likely age group for patients to present was 20-30 years. Beesdo (2009) reported that panic disorder is most likely to present in later adolescence with some incidences in early adolescence.[19]

Results showed that patients who suffer from depressive disorder and generalized anxiety disorder were significantly more likely to present in the spring season. This finding had been noted in other parts of the world as well. A prospective US study of 298 unipolar major depressive disorder patients, followed up for at least 10 years, found that the greatest symptom burden was seen in December through April with a peak in March[20]. A systematic review of 51 studies found that, for patients of bipolar affective disorder, manic episodes peak in spring/summer and to a lesser extent in autumn while depressive episodes peak in early winter and to a lesser extent in summe[21]. Similar findings have been reported from Poland[22], Canada[23], Denmark[24] and Sweden[25].

STRENGTHS

The data for our study was collected during routine clinical settings and therefore patients were more likely to be forthcoming in their responses to the questions asked. Secondly, every patient was seen by a consultant psychiatrist and diagnosed according to ICD-10 criterion. Our study did not rely on using self report measures that have been used in some previous studies and therefore the diagnoses are more likely to reflect a truer picture of the disease frequency and prevalence in outpatients setting. To our knowledge, this is the highest number of patients of any study that is done in psychiatric outpatient setting in the province of Punjab.

LIMITATIONS

Community studies of the whole population are obviously a better measure of the overall prevalence of a particular disorder but these studies are resource exhausting and in a country like Pakistan where available resources are directed towards more urgent clinical requirements, this is our best opportunity to get as clear a picture of the prevalence of psychiatric disorders as possible.

CONCLUSION

The results from the study generally supported the previous research in this area. It is interesting to note that gender and season pattern of illness presentation are quite similar to what have been observed in other parts of the world, despite the large differences in culture and geography. Resources need to be diverted to more high risk patients in each particular diagnostic category and further hopefully larger studies are needed to confirm these gender, season and age patterns in this part of the world.

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