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PROF-1276

PSYCHIATRIC INPATIENTS;

PATTERN AND PREVALENCE OF PSYCHIATRIC MORBIDITY. A STUDY BASED ON PSYCHIATRIC CASE-REGISTER.



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ABSTRACT... <u>niazmaqsood@hotmail.com</u>. **Objective:** To explore the pattern and prevalence of inpatient psychiatric morbidity and to see how it differs from the pattern of psychiatric morbidity in community. **Design**: The details of all inpatients from the case register developed for a health information system was included in study **Setting**: In Department of Psychiatry and Behavioral Sciences, Bahawal Victoria Hospital, Bahawalpur. **Period**: From 1998-2003. **Results**: A total of 5426 patients were admitted in the six year. There was a slight difference of 0.8% in total number of males and females cases (i.e., 2764 males Vs 2662 females). Overall difference reported in the present study, in mean ages of males and females was 3.45 years (i.e., males = 31.85 Vs females = 28.40). Mean stay of patients in ward is 10-12 days. Most patients were admitted with Conversion disorder 24% followed by Schizophrenia 23%, Depressive disorder 20%, Drug Dependence 10%, Bipolar Disorder 7%. The patients with Neurotic Disorder and Organic Disorder were below 5%. **Conclusion**: The study showed that overall general pattern of inpatient psychiatric morbidity is in line with pattern of psychiatric morbidity in community and the partial variance can be explained in terms of social variables, as this variance exist even across studies within community samples.

Key words: Psychiatric case registers. In-patient psychiatric morbidity. Gender distribution

INTRODUCTION

Since the establishment of first effective psychiatric register in January 1960, case register in psychiatry has been considered as a useful tool for epidemiological studies of psychiatric illness. Mental disorders pose

problems of definition and classification that are different from problem faced in other disorders and the impact of mental illness on the individual and the community is unique¹. Considering the diversity of psychiatric problems, models for psychiatric case register have been developed by involvement of statisticians, sociologists, psychologists, and psychiatrists. A third conference on psychiatric case register was held on July 1-2, 1965, at Bethesda, Maryland under NIMH, attended by psychiatrists, sociologists and statisticians². Case register studies in psychiatry are important in the sense that they figure out prevalence and pattern of mental health problems in clinical population and thus help in better utilization and planning of future mental health services. The very first study conducted by Bahan et al., (1966) showed impressive results with a vast data by comparing case registers of psychiatry in four different areas (i.e., Hawaii; Maryland; Monroe County, N.Y; & Tricounty, N.C.)³.

Mental health facilities are not well established in Pakistan as compare to alarming prevalence of mental health problems. Studies have shown that 10% to 66% of the general population suffers from mild to moderate psychiatric illness in addition to 1% suffering from sever mental illnesses^{10,15,18}. In Pakistan studies have been conducted to explore psychiatric morbidity in community^{6,10,13,16-18} in general hospital patients²² and in psychiatric clinics^{19-20,24}. Current study is inline with the existing research to explore patterns and prevalence of psychiatric disorders by examining case register data of psychiatric inpatients.

Studies have reported a difference in pattern and prevalence of psychiatric disorders in clinical population than in community¹⁴. In his study Earls investigated sex differences in psychiatric disorders. The researcher found that Alcoholism, Antisocial Personality and Completed Suicide predominated in males, while Depression, anxiety, Eating disorders, and Attempted Suicide were more common in females. Most Anxiety disorders, as well as Depressive disorders, are at least twice as common in women except for Obsessive-Compulsive disorder⁵. Szádóczky et al, reported that lifetime and period prevalence of MDD were more than twice as high in women then in men²³. In another study Pigott, reported that women are more likely than men to develop Anxiety disorder²¹. In a community survey of urban Rawalpindi Mumford et al, found that 25% women whereas 10% men of the general population suffered Anxiety and

Depressive disorder¹⁸.

In a study to track hierarchy of psychiatric disorders in patients treated at multiple centres Harsch & Young found that Affective disorders are the most common psychiatric diagnoses treated on most units (i.e., 44% of patients)⁹. In a German study based on a community sample, researchers found that 12-month prevalence for any DSM-IV disorder is 31% (lifetime: 43%; 4-week: 20%) with Anxiety disorders, Mood disorders and Somatoform syndromes being the most frequent diagnoses¹². In another study in Bangladesh, Islam et al., found that the prevalence of psychiatric disorders was 28% and that Somatoform disorders were the most common among the respondents, followed by Mood, Sleep, Anxiety, and Substance related disorders¹¹, A recent study investigated frequency of psychiatric morbidity in affluent urban population of Karachi. A ratio of 2:1 was reported between female and male outpatients who visited the center and the researchers found that most common psychiatric disorders were Depressive Illness (49.4%) Schizophrenia (16.2%), Schizoaffective Disorder (5.8%) Panic Disorder (5.2%), OCD (4.7%), Disorders of Childhood and Adolescence (2.8%), Epilepsy (1.6%), Substance Abuse Disorder (1.5%) and Conversion Disorder (1.4%). Furthermore they found that female patients had distinctly higher percentages in Psychotic disorders (14.3% Vs 9.4%). Mood disorders (37.5% Vs 18.6%) & Conversion disorders (0.8% vs 0.6%)¹⁸. Mean overall prevalence of anxiety and depressive disorders in the community population was 34% (range 29-66% for women and 10-33% for men)¹⁵.

In a study to predict length of stay in psychiatry, the researchers found that diagnosis of neurosis predicted shortest stay, but diagnosis alone accounted for only $14\pm6\%$ of the variation in length of stay⁴. In a community study for exploring prevalence of depression among households in three capital cities of Pakistan by using telephonic survey method, Gadit et al, found that there was a regional variation in prevalence rates for depression among the three cities. Lahore had the highest number of depressives (53.4%), as compared to Quetta (43.9%) and Karachi (35.7%)⁶.

Purpose of the present study is to take an overview of pattern and prevalence of psychiatric morbidity in psychiatric inpatients and to see how it differ from community and general hospital patients. Moreover, we also intended to investigate age differences, length of stay and residential area for a better understanding of inpatient psychiatric morbidity.

METHOD

For the present study, inpatient data of six years (i.e., 1998-2003) was included from the case register of Department of Psychiatry, Bahawal Victoria Hospital-a teaching hospital affiliated with Quaid e Azam Medical College, Bahawalpur. The Psychiatry department was established in 1973 with OPD services and in 1976 inpatient facility was provided initially with 16 beds. Being the only psychiatrist facility of southern-east Punjab (within boundaries of ex State of Bahawalpur) and covering a large ruler area from Bahawalnagar to Rahim Yar Khan, the department was upgraded soon to provide better treatment facilities, with increase in beds, provision of new and better treatment equipments and availability of consultants and trained staff. At the present the department provides a 50 bed inpatient facility along with 10 bedded subdivision of drug treatment centre and outpatient facility is available throughout the week.

Case registers are maintained regularly on daily basis for inpatients and outpatient as well. After initial medical check up, patients visiting OPD are referred to a consultant psychiatrist who investigates problem of the patients and recommend admission if needed. On admission, all information related to patient and his problem, is compiled into a file and updated daily during ward rounds by discussing cases of patients to consultant and colleagues. The information is also entered in admission/discharge register (also called case register, containing plenty of useful information). In the current study, data of six years from the case register of Department of Psychiatry.

RESULTS

A total of 5426 patients were admitted in the six year (i.e., 1998-2003). Although, there was a slight difference of 0.8% in total number of males and females cases (i.e., 2764 males Vs 2662 females) yet chi square showed a significant difference in number of males and females cases with a p value of (.001) when analyzed against years of admission. This indicated that distribution of males and females is not homogeneous across years. A year wise analysis of total number of males and females patients is given in Table (Ia) along with mean age of patients.

Table-la.							
Year of admission	Ма	le	Fem	Female			
	N(%age)	Mean age	N(%age)	Mean age			
1998	436(58.5%)	32.15	309(41.5)	28.35	745		
1999	280(53.7%)	32	241(46.3%)	28.90	521		
2000	354(49.0%)	30.75	369(51%)	27	723		
2001	398(47.3%)	32.25	443(52.7%)	29.55	841		
2002	384(46.2%)	31.05	448(53.8%)	28.05	832		
2003	912(51.7%)	32.25	852(48.3%)	28.40	1,76(4)		
total in 6 years	2,764(50.9%)	31.85	2,662(49.1%)	28.40	5,42(6)		

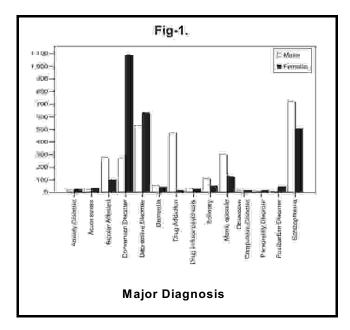
Although a pattern of increase in number of female patients can be followed from the above table yet the results indicate that fluctuation between number of males and females patients across years is unstable. The problem occurred due to two disorders: Postpartum disorder (accounted only for females) and Drug Addiction (although not accounted for only males yet report of addict females is about 0% in clinical setups in Pakistan). Table (Ib) presents results by excluding two disorders (i.e., Postpartum disorder and Addiction). Results showed a clear pattern of increasing prevalence of females cases expect year 2003. An overall difference of 8% showed that prevalence of psychiatrist disorders is higher in females (i.e., 53.2%) as compare to males (i.e., 46.8%). To check stability of difference in prevalence of psychiatric disorders in males and females across the six years chi square test was applied. A p value of 0.07 represented stability of prevalence of psychiatric disorders across 6 years. This indicated a normal distribution of psychiatric disorders in clinical population even with high fluctuations in total number of registered cases i.e., 594 in year 1998 to 1,635 in year 2003.

Table-Ib.							
Yr of admission	Ma	le	Fem	Female			
	N(%age)	Mean age	N(%age)	Mean age			
1998	289(48.7%)	30.55	305(51.3%)	28.45	594		
1999	211(47%)	30.95	238(53%)	29.05	449		
2000	302(45.6%)	29.75	360(54.4%)	27.000	662		
2001	351(44.9%)	31.95	431(55.1%)	29.45	782		
2002	337(43.2%)	30.40	443(56.8%)	28.15	780		
2003	804(49.2%)	32.00	831(50.8%)	28.50	1,63(5)		
total in 6 years	2,294(46.8%)	31.20	2,608(53.2%)	28.45	4,90(2)		

Difference in mean age of males and females patients didn't deviate significantly by inclusion or exclusion of the two disorders (i.e., Addiction and Postpartum disorder), although decreasing F ratio "101.30" (with inclusion of two disorders) to "55.92" with exclusion of two disorders and thus increasing homogeneity within sample but difference between mean age of males and females remained significant with a p value of ".001" in both samples. Overall difference reported in the present study, in mean ages of males and females was 3.45 years (i.e., males = 31.85 Vs females = 28.40) with inclusion and 2.75 years (i.e., males = 31.20 Vs females = 28.45) with exclusion of Addiction and Postpartum disorder.

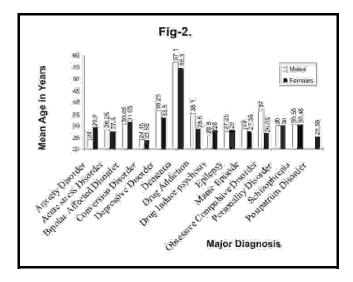
Figure (1 & 2) represent further evidences for earlier findings. Figure (1) shows frequency distribution of major psychiatric diagnosis in all six years in form of bar char. No doubt Postpartum disorder is accounted only in

females yet it is also evident from Figure 1 that Drug Addiction is reported frequently in male inpatients "470" as compare to only 10 cases of female inpatients in whole six years. Among other major diagnostic categories, Conversion disorder is most prominent with a percentage of (80.5) in female inpatients as compare to 4times less percentage (19.5) of male inpatient, followed by personality disorders three times greater in female inpatients then in males inpatients (i.e., 72.2% Vs 27.8%). Generalized Anxiety disorder, Acute Stress disorder, Major Depression & Obsessive Compulsive disorder are other four categories reported higher in female inpatients by percentages of 19%, 14.8%, 9.4% & 9% respectively as compare to male inpatients. Followed by Drug Addiction, prevalence of male inpatients was higher as compare to female inpatients in



Bipolar Affected disorder, Manic Episode, Epilepsy, Drug Induced Psychosis, Schizophrenia and Dementia by percentages of 47.6%, 42.2%, 37.8%, 18.4%, 18% & 7.5% respectively. Figure (2) represents mean ages of males and females in context of major diagnosis. It is evident from the figure, that mean age of male and female inpatients was not significantly different for Personality disorder & Schizophrenia (mean age 30 years), Epilepsy & Acute Stress disorders (mean age 27.5years) and Conversion disorder with mean age 24 years. A difference of 1-2 years is evident with a lower mean age of males as compare to females in Bipolar Affected disorder (31years, 30years), Manic Episode (29years, 27years) & Drug Induced Psychosis (28years, 26vears) whereas for Anxiety disorder mean age of females was higher than males with a significant difference of 5 years (i.e., 29 years, 24 years). Mean age of males and females for Dementia (57years, 54years) and Major Depression (33year, 36years) showed a significant difference of 3years with higher mean age of males as compare to females. In the similar lines difference of mean age for Drug Addiction (35years, 28years) showed higher mean age of males with 7 years difference and for Obsessive Compulsive disorder (37yers, 26years) lower mean age of females with a difference of 11 years as compare to males. Mean age for Postpartum disorder was reported as 25 years.

Table-IIa.							
Psychiatric Disorder		1998	1999				
	Male	Female	Total	Male	Female	Total	
Acute stress disorder/AD	12(2.8%)	19(1.5%)	31(4.2%)	4(1.4%)	5(2.1%)	9(1.8%)	
Bipolar affected disorder	8(1.8%)	1(0.3%)	9(1.2%)	31(11.1%)	2(0.8%)	33(6.3%)	
Conversion disorder	24(5.5%)	95(30.7%)	119(16%)	10(3.6%)	74(30.7%)	84(16.1%)	
Depressive disorder	45(10.3%)	56(18.1%)	101(13.6%)	46(16.4%)	66(27.4%)	112(21.5%)	
Dementia	5(1.1%	2(0.6%)	7(0.9%)	4(1.4%)	3(1.2%)	7(1.3%)	
Drug addition	147(33.7%)	2(0.6%)	149(20%)	69(24.6%)	-	69(13.2%)	
Drug induce psychosis	6(1.4%)	-	6(0.8%)	5(1.8%)	5(2.1%)	10(1.9%)	
Epilepsy	14(3.2%)	4(1.3%)	18(2.4%)	5(1.8%)	4(1.7%)	9(1.7%)	
Manic episode	6(1.4%)	-	6(0.8%)	9(3.2%)	-	9(1.7%)	
Obsessive compulsive disorder	1(0.2%)	-	1(0.1%)	1(0.4%)	-	1(0.2%)	
Personality disorder	-	-	-	1(0.4%)	1(0.4%)	2(0.4%)	
Postpartum disorder	-	2(0.6%)	2(0.3%)	-	3(1.2%)	3(0.6%)	
Schizophrenia	168(38.5%)	128(41.4%)	296(39.7%)	95(33.9%)	78(32.4%)	173(33.2%)	



Duration of Stay & Major Diagnosis

Figure (3) represents residential district of patient, although urban and ruler status of the patients is unclear from the data and thus ratio between urban and ruler

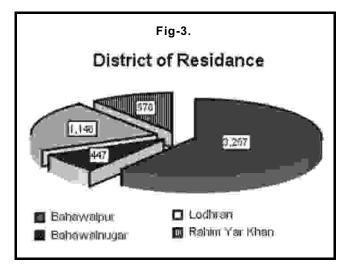
population is not presented yet a comparison can be considered between large and small cities. It is evident from figure (3) that 81% patients were from Bahawalpur and Lodhran and 19% were from Bahawalnagar and Rahim Yar Khan.

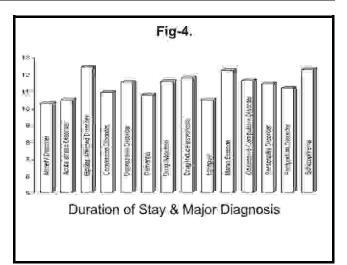
Figure (4) presents mean stay of patients in ward with major psychiatric diagnosis. Mean stay of patients in ward is highest for Bipolar Affected disorder, Manic Episode and Schizophrenia (i.e., 12-13 days) followed by Depressive disorder, Drug Addiction, Drug Induced Psychosis, Obsessive Compulsive disorder and Personality disorders (i.e., 11-12 days) whereas Generalized Anxiety disorder, Acute Stress disorder, Conversion disorder, Dementia, Epilepsy and Postpartum disorder represented lowest stay in ward (i.e., 10-11 days). Tables (IIa, IIb, & IIc) present year wise analysis of major diagnosis in across gender.

Table-IIb.							
Psychiatric Disorder		2000		2001			
	Male	Female	Total	Male	Female	Total	
Acute stress disorder/AD	3(0.9%)	2(0.6%)	5(0.7%)	4(1.0%)	5(1.1%)	9(1.1%)	
Bipolar affected disorder	58(16.4%)	21(5.7%)	79(10.9%)	76(19.1%)	30(6.8%)	106(12.6%)	
Conversion disorder	40(11.3%)	177(48.0%)	217(30.0%)	39(9.8%)	180(40.6%)	219(26.0%)	
Depressive disorder	74(20.9%)	72(19.5%)	146(20.2%)	76(19.1%)	104(23.5%)	180(21.4%)	
Dementia	8(2.3%)	7(1.9%)	15(2.1%)	2(0.5%)	11(2.5%)	13(1.5%)	
Drug addition	52(14.7%)	2(0.5%)	54(7.5%)	47(11.8%)	2(0.5%)	49(5.8%)	
Drug induce psychosis	0(0.0%)	1(0.3%)	1(0.1%)	3(0.8%)	1(0.2%)	4(0.5%)	
Epilepsy	9(2.5%)	6(1.6%)	15(2.1%)	15(3.8%)	9(2.0%)	24(2.9%)	
Manic episode	46(13.0%)	15(4.1%)	61(8.4%)	39(9.8%)	17(3.8%)	56(6.7%)	
Obsessive compulsive disorder	1(0.3%)	1(0.3%)	2(0.3%)	1(0.3%)	3(0.7%)	4(0.5%)	
Personality disorder	1(0.3%)	2(0.5%)	3(0.4)	1(0.3%)	2(0.5%)	3(0.4%)	
Postpartum disorder	0(0.0%)	7(1.9%)	7(1.0%)	0(0.0%)	10(2.3%)	10(1.2%)	
Schizophrenia	62(17.5%)	56(15.2%)	118(16.3%)	95(23.9%)	69(15.6%)	164(19.5%)	

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Table-II c.							
Psychiatric Disorder		2002		2003			
	Male	Female	Total	Male	Female	Total	
Acute stress disorder/AD	1(0.3%)	1(0.2%)	2(0.2%)	11(1.2%)	17(2.0%)	28(1.6%)	
Bipolar affected disorder	72(18.8%)	25(5.6%)	97(11.7%)	23(2.5%)	16(1.9%)	39(2.2%)	
Conversion disorder	45(11.7%)	198(44.2%)	43(29.2%)	105(11.5%)	361(142.4%)	466(26.4%)	
Depressive disorder	62(16.1%)	115(25.7%)	177(21.3%)	219(24.0%)	217(25.5%)	436(24.7%)	
Dementia	6(1.6%)	1(0.2%)	7(0.8%)	18(2.0%)	13(1.5%)	31(1.8%)	
Drug addition	47(12.2%)	1(0.2%)	48(5.8%)	108(11.8%)	3(0.4%)	111(6.3%)	
Drug induce psychosis	8(2.1%)	0(0.0%)	81(1.0%)	7(0.8%)	13(1.5%)	20(1.1%)	
Epilepsy	14(3.6%)	9(2.0%)	23(2.8%)	47(5.2%)	15(1.8%)	62(3.5%)	
Manic episode	41(10.7%)	17(3.8%)	58(7.0%)	156(17.1%)	72(8.5%)	228(12.9%)	
Obsessive compulsive disorder	3(0.8%)	3(0.7%)	6(0.7%)	3(0.3%)	5(0.6%)	8(0.5%)	
Personality disorder	1(0.3%)	4(0.9%)	5(0.6)	1(0.1%)	4(0.5%)	5(0.3%)	
Postpartum disorder	0(0.0%)	4(0.9%)	4(0.5%)	0(0.0%)	18(2.1%)	18(1.0%)	
Schizophrenia	84(21.9%)	70(15.6%)	154(18.5%)	214(23.5%)	98(11.5%)	312(17.7%)	





DISCUSSION

As earlier studies mentioned that pattern and prevalence of psychiatric disorders is different in psychiatric inpatients as compare to psychiatric morbidity in general¹⁴. The difference can be explained by the four filters mentioned by Goldberg and Huxley⁸ which patients have to go through from community level to psychiatric hospitals.

Taking this perspective we assume that psychiatric morbidity in psychiatric inpatients is not associated with psychiatric morbidity in community, which lead us to conduct independent studies to investigate pattern and prevalence of psychiatric disorders in psychiatric inpatients. To investigate this different pattern of psychiatric disorder we assumed that psychiatric disorders are normally distributed in psychiatric inpatients across gender. The results indicated a slight difference even less then 1% in overall psychiatric morbidity of males and females. The difference is greater in first year of the studied data (i.e. 17%) which is according to the earlier findings¹⁴ but a pattern of decreasing difference can be followed which results into a difference of 3.4% in year 2003. Although the results indicate some information about pattern of psychiatric morbidity in psychiatric inpatients yet the pattern seems unstable and the uncertain fluctuations across years made the pattern more complex. The data was revised to track out the complexity of pattern and two diagnostic categories were detected, which can not be assumed as normally distributed: first postpartum disorder (accounted only for females and thus assuming its equal distribution in males is irrational) and second drug addiction (although not accounted only for males but prevalence in females is close to 0%). Controlling for the two categories data was reanalyzed and the results indicated a much stable pattern of psychiatric morbidity across years. Furthermore, the results also indicated that prevalence of psychiatric morbidity is significantly greater in females then in males which is partially supported by the studies conducted in community^{6,10,13,16-18} and in general hospital patients²². The results do not deny the Goldberg and Huxlev⁸ model of filtration rather it explains equal probability of filtration for males and females. It can be concluded that although the general pattern of psychiatric morbidity in inpatients is similar to psychiatric morbidity in community yet the partial difference might be due to other social factors (i.e., non-serious attitude toward female psychiatric problems in a male dominated community, lack of awareness about psychiatric problems, economical problems etc.).

Further analysis presented that prevalence of conversion disorder is highest 24.8% of all disorders; similar findings are presented in a community study in Bangladesh¹¹ and in another study in Germany¹². Although with a little difference, schizophrenia 22.4% presented to be second highest followed by depressive disorder 21.2%, the findings are contrary to an outpatient study conducted in Karachi¹⁵, but the difference can be explained by the admission criteria, i.e., high probability of admission for schizophrenic then for depressed. This assumption can be tested by further research, comparing case register of inpatients with case register of outpatient. Analysis for hierarchy of psychiatric disorders across gender showed that conversion disorder is most prominent in female inpatients followed by Depressive disorder, Schizophrenia, Manic Episode, Bipolar Affected disorder, Epilepsy, Postpartum disorder and Dementia respectively whereas in male inpatients Schizophrenia was highest followed by Depressive disorder, Drug Addiction, Manic Episode, Bipolar Affected disorder, Epilepsy, Dementia, & Drug Induced Psychosis respectively. As there are variations in prevalence of disorders not only between community and clinical patients but also across studies in one type of population (either community or clinical), our result are supported partially from various studies conducted in community and clinical settings.

Mean age of males and females in context of major psychiatric diagnosis was analyzed. Overall difference reported in the present study, in mean age of males and females was 3.45 years (males=31.85 Vs females=28.40). Mean age of male and female inpatients was not significantly different for Personality disorder, Schizophrenia, Epilepsy, Acute Stress disorders and Conversion disorder. Little is known in the literature about mean age difference of males and females for moderate and severe psychiatric disorders. In a study in Tokyo (Japan), researchers reported no significant difference in mean age of schizophrenic males and females patients²⁵. In another study in Bangalore (India) the researchers reported no significant difference in mean age of onset of schizophrenia between the two sexes in a sample with low infant mortality rate⁷. A difference of 1-2 years was reported with a lower mean age of males as compare to females in Bipolar Affected disorder, Manic Episode & Drug Induced Psychosis whereas for anxiety disorder mean age of females was higher than males with a significant difference of 5 years. Mean age of males and females For Dementia and Major Depression showed a significant difference of 3 years with higher mean age of males as compare to females. In the similar lines difference of mean age for Drug Addiction showed higher mean age of males with 7 years difference and for Obsessive Compulsive disorder lower mean age of females with a difference of 11 years as compare to males. Mean age for Postpartum Disorder is 25 years that is according to average age of females in Pakistan at their first child birth.

Regional variation in prevalence of psychiatric disorder is reported in Pakistan⁶. In our study we also found difference of prevalence of major psychiatric diagnosis in four cities, moreover, from our results we concluded that number of patients depends more on the distance from the treatment facility rather on their citizenship of a developed or undeveloped city. Although contrary to earlier findings¹⁴ we did not found a significant difference in average stay in ward between males and females patients yet hierarchy of major diagnostic categories is evident with highest for Bipolar Affected disorder, Manic Episode and Schizophrenia (i.e., 12-13 days) followed by Depressive disorder, Drug Addiction, Drug Induced Psychosis, Obsessive Compulsive disorder and Personality disorders (i.e., 11-12 days) whereas "Generalized Anxiety disorder, Acute Stress disorder, Conversion disorder, Dementia, Epilepsy and Postpartum Psychosis" represented lowest stay in ward (i.e., 10-11 days). The findings are consistent with earlier research⁴ predicting shortest stay for patients diagnosed with neurosis.

CONCLUSIONS

The study showed that overall general pattern of inpatient psychiatric morbidity is in line with pattern of psychiatric morbidity in community and the partial variance can be explained in terms of social variables, as this variance exist even across studies within community samples. It is evident from the current study that case register studies can be helpful and to some extent they are an alternate of epidemiological studies which are difficult to conduct due to lack of resources. It is suggested to develop computerized versions of psychiatric case register at both inpatients and outpatients facility. It is also suggested that future research in this regard should also include case register from outpatient facility for a better understanding of pattern of prevalence in community.

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