Original Article

A CROSS-SECTIONAL STUDY OF THE FREQUENCY OF PSYCHIATRIC MORBIDITY IN AFFLUENT URBAN POPULATION OF KARACHI

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ABSTRACT

Objective: To estimate the frequency and incidence of psychiatric morbidity in "elite, affluent" urban population of Karachi Pakistan.

***Sample*:** The new outpatients at The Psychiatric Clinic and Stress Research Center situated at Zamzama Boulevard over a period of three years (2001-2003).

***Methods*:** Information about the demographic characteristics, socio-economic status and clinical diagnoses of patients was obtained from case history files maintained at the clinic, retrospectively. Secondly a list of specific stressors in the upper social class female patients lives (their own set of unique stressors, to keep up with their social class materialistically, competition, boredom, no meaningful application of their achievements having higher, education and professions, hectic banal social demands – coffee parties, jet set life styles, alcohol and drug abuse was documented.

Results: 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%). The ratio of female patients to male patients was 2:1.The female patients in this sample of population 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%), compared to the male patients, thereby indicating better living conditions, financial advantages & even post graduate professional education in upper affluent social class does not reduce their stress, "every body has their axe to grind in life " these women said!!!!

Conclusion: The results of this study distinctly showed that depressive illness and other psychiatric disorders are not only the "diseases of poverty" but are twice as common among apparently adjusted upper class females. The Upper middle class is an affluent population of Karachi, a cosmopolitan city of Pakistan. This clearly indicates that causes of depression or other psychiatric morbidity may vary but the psychiatric morbidity in women is markedly more than men in every class of the society worldwide and the perception that depression is more common in females of lower socioeconomic class is not true in Pakistan.

KEY WORD: Psychiatric morbidity, private clinic, outpatients, affluent class, diagnosis.

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INTRODUCTION

Knowledge of the extent of psychiatric morbidity is important for the planning of mental health services. Epidemiological studies designed to measure the prevalence of morbidity accurately are time consuming and costly to conduct. Hence, proxy measures are often used to determine the extent of psychiatric morbidity in a population. There is already an established association between the psychiatric referrals and admission rates and socioeconomic factors (Thornicroft, 1991).[1] This has led to the use of socio-economic indices to help predict psychiatric morbidity in an area and the workload of mental health services. Most of the

previous research on the association between psychiatric workload and socio-economic factors has concentrated on admission rates. Now that most of the workload of psychiatry services takes place in the community, more research is needed on community and primary care services for psychiatric disorders, and on factors that predict psychiatric workload in the community.

Mental health problems are among the most important contributors to the burden of disease and disability worldwide: five of the ten leading causes of disability are mental health problems and in future there is likelihood of massive increase in psychiatric morbidity. Data developed by WHO on Global Burden of Disease, revealed that mental illnesses, including suicide, accounts for over 15 percent of the burden of disease. This Global Burden of Disease study developed a single measure (DALY) to allow comparison of the burden of disease across many different disease conditions by including both death and disability. It showed that disability caused by major depression ranked second only to ischemic heart disease in magnitude of disease burden. Schizophrenia, bipolar disorder, obsessive-compulsive disorder, panic disorder, and post-traumatic stress disorder also contributed significantly to the total burden of illness attributable to mental disorders. Consequently with the aging of the world population, psychiatric and neurological conditions could increase their share of the total global disease burden by almost half, from 10.5 percent of the total burden to almost 15 percent in 2020.[2]

Common disorders, which usually cause severe disability, include depressive disorders, substance use disorders, schizophrenia, epilepsy, Alzheimer's disease, mental retardation, disorders of childhood and adolescence. Factors associated with the prevalence, onset and course of mental and behavioral disorders include poverty, sex, age, conflicts, major physical diseases, the family and social environment.[3]

Surveys conducted in developed as well as developing countries have shown that, during their entire lifetime, more than 25% of individuals develop one or more mental or behavioural disorders.[4] Fifteen epidemiological studies on psychiatric morbidity in India have been analysed. National all-India prevalence rates for 'all mental disorders' and five specific disorders have been worked out. The national prevalence rates for 'all mental disorders' arrived at are 70.5 (rural), 73 (urban) and 73 (rural + urban) per 1000 population. Prevalence of schizophrenia is 2.5/1000 and this seems to be the only disorder whose prevalence is consistent across cultures and over time. Rates for depression, anxiety neurosis, hysteria and mental retardation are provided. Urban morbidity in India is 3.5 percent higher than the rural rate.[5]

A cross-cultural study conducted by WHO at 14 countries including (Turkey, India, China, Greece, France, Nigeria, Italy, Japan, Germany, UK, Brazil, Chile, USA, Netherlands) showed that though the prevalence of mental disorders across the countries varied considerably, the results clearly demonstrated that a substantial proportion (about 24%) of all patients in primary care settings had a mental disorder. The most common diagnoses in primary care settings were depression, anxiety and substance abuse disorders. These disorders were present either alone or in addition to one or more physical disorders. This study showed that there are no consistent differences in prevalence of psychiatric morbidity between developed and developing countries.[6,7]

A recently conducted study of a relatively affluent County of England, estimated prevalence of neurotic disorders is significantly higher than what could be expected from Office of National Statistics estimates. The rate of neurosis is 201.3 per thousand. This means that there are about 3,600 more people suffering from neurosis than would have been expected. This excess is due to a significantly increased rate of depression and mixed anxiety and depression. This study determined that all the Primary Care Trust/Group areas have an increased prevalence of psychiatric morbidity as compared with the rest of country. The rates

of possible psychiatric morbidity are higher in women than men. This prevalence is significantly higher than what could be expected from recent national estimates.[8]

The economic costs for mental disorders are high, but costs of human suffering are immeasurable. The pervasive effects of social exclusion, resulting from stigma and discrimination often prevent people in need to seek treatment. Societies must focus on collective efforts to destigmatize psychiatry and provide adequate psychiatric treatment facilities. Also lack of studies in this field has kept us behind from meeting the emerging mental health challenges.

Number of studies concerning mental illness and its proportion in Pakistan are very few. One study was conducted by the Institute of Psychiatry, Rawalpindi PAKISTAN which provided information about inpatient psychiatric morbidity in a tertiary care mental health facility. The findings of study showed that psychiatric morbidity is more prevalent in males as compared to females. Minhas, F. also reported that pattern of psychiatric morbidity obtained from the results of their study was entirely different from the distribution of illness reported in the community.[9]

This cross sectional study was carried out to identify frequency of psychiatric morbidity in urban population in Karachi. This is based on outpatients seeking psychiatric help at The Psychiatric Clinic and Stress Research Center over a period of three years. The information obtained from such studies are based on a particular segment of the populations and it might not be representative of the needs of whole Pakistan, however, it is hoped that this study and other studies at different levels will help create a data base which will help in accurate assessment of specific mental health needs of different population groups.

PATIENTS AND METHODS

In this survey the sample consisted of patients who came to The Psychiatric Clinic and Stress Research Center. The Psychiatric Clinic is an outpatient private clinic located in a well known elite shopping boulevard at Zamzama, Defence Housing Society, Karachi. It operates five days a week excluding seminars, workshops, conferences and national holidays. It therefore works approx 17 days a month. The present sample for study consisted of patients who came for treatment of psychiatric illnesses over a period of three years i.e. from January 2001 to December 2003. The sample therefore consisted of a total of 939 new outpatients. Information about demographic charterstics, life events and their specific stressors, diagnoses of the patients, was obtained from their history files maintained at clinic. As it is a private outpatient clinic, patients come from all areas of Karachi.

THE SOCIO – ECONOMIC STATUS is determined by Educational qualification, occupational status and residential areas of patients, in this study occupation, and education were the primary determinants used to describe socioeconomic status of our sample of patients. The diagnoses of the patients are based on DSM IV system of classification. Review of literature showed that depression is one of the most common psychiatric disorders particularly in females. Case Histories of female patients with depression were reviewed to identify their specific concerns, life events and stressors which lead to depression in them. The patient's history files are kept as confidential record and only accessible to clinicians dealing with these patients.

Statistical Analysis

The statistical package for social sciences (SPSS) was used for statistical analysis.

RESULTS

A total of 939 patients visited at The Psychiatric Clinic and Stress Research Center in three years. The ratio of female patients to

Table-I: Percentage of male & female patients

	Frequency	*Percent*
Male	361	38.4
Female	578	61.6
Total	939	100.0

male patients is about 2:1. (Also see table-I for percentage values)

Mean Age of patients is about 35 years and it is nearly same in both genders and Table-II describes their marital status.

Table-II: Marital status of male & females patients

	Single (%)	*Married (%)*	*Divorced/ Separated(%)*	*Widow (%)*
Male	54.6	43.2	2.2	-
Female	29.9	62.3	4.2	4.2

The socioeconomic status of patients can be assessed on basis of person's occupational status, educational qualification and his residential area. Table-III and Table-IV describes these aspects of our population group.

Diagnoses of the patients were based on DSM IV criteria. For details of psychiatric disorders among these patients see Table-V.

As shown in Table-V 37.5% of the female patients were suffering from depressive illness.

Table-III: Educational qualification occupational status of patients

Educational Qualification

Below Metric		*Metric/Inter*		*Graduate*		*M.A/M.S.c*		*Professional Education*	
n	*%*	*n*	*%*	*n*	*%*	*n*	*%*	*n*	*%*
76	8.1	254	27.5	294	31.4	123	13.0	192	20.4

Occupational Status

Business		*Landlords*		*In-Service (Doctors, executives of multinational firms, Engineers, Accountants etc)*	
n	*%*	*n*	*%*	*n*	*%*
110	12.4	17	3.1	212	20.2

Supported by Others

House-wives		*Students*		*Retired*		*Jobless*	
n	*%*	*n*	*%*	*n*	*%*	*n*	*%*
333	35.5	220	23.4	12	2.3	35	3.7

Table-IV: Residential Areas of Patients

Residential Area	*DHA*	*Clifton*	*PECHS*	*KDA*	*SMCHS/ DMCHS*	*Gulshan*	*FB Area*	*Tariq Road*	*Nazimabad*
Frequency	298	123	48	14	29	79	16	16	37
Percentage	31.7	13.1	5.1	1.4	3.1	8.4	2.0	2.0	3.9

Residential Area	*Sharah-e-Faisal*	*Saddar*	*Gizri*	*Garden East-West*	*North Karachi*	*Korangi/ Landhi*	*Kemari*	*Lyari*	*Buffer Zone*
Frequency	39	67	14	23	28	46	36	19	7
Percentage	4.1	7.1	1.4	2.4	2.9	4.8	3.8	2.0	0.74

Table-V: Diagnosis of the patients for consultations (n=939)

S. No.	Mental disorders	No. of Patients	Percentage (%)
I)	**Psychotic Disorders**		
	Schizophrenia	152	16.2
	Schizoaffective Disorder	54	5.8
	Brief Psychotic Disorder	16	1.7
	TOTAL	**222**	**23.7**
		Male	(9.4)
		Female	(14.3)
II)	**Mood Disorders**		
	Unipolar Disorder	464	49.4
	Bipolar Disorder	51	5.4
	Postpartum Depression	12	1.3
	TOTAL	**527**	**56.1**
		Male	(18.6)
		Female	(37.5)
III)	**Anxiety Disorders**		
	Panic Disorder	49	5.2
	Acute Stress Disorder	5	0.5
	OCD	44	4.7
	Social Phobia	1	0.1
	TOTAL	**99**	**10.5**
		Male	(4.9)
		Female	(5.6)
IV)	**Disorders of Childhood & Adolescence**		
	ADHD	9	1.0
	Behavioral Problems	17	1.8
	TOTAL	**26**	**2.8**
		Male	(1.7)
		Female	(1.1)
V)	**Cognitive Disorders**		
	Dementia	9	1.0
		Male	(0.6)
		Female	(0.4)
VI)	**Eating Disorders**		
	Anorexia Nervosa	1	0.1
		Male	(-)
		Female	(0.1)
VII)	**Substance Abuse Disorders**	14	1.5
		Male	(1.1)
		Female	(0.4)
VIII)	**Epilepsy**	15	1.6
		Male	(0.85)
		Female	(0.75)
IX)	**Personality Disorders**	12	1.3
		Male	(0.65)
	Female	(0.65)	
X)	**Conversion Disorders**	14	1.4
		Male	(0.6)
		Female	(0.8)

Table-VI: Most commonly identified concerns among female patients with depression (n=352)

S.No	Concerns	Frequency	Percentage (%)
1.	Marital breakdown / Conflicts with husband	91	25
2.	Conflict with In-laws	37	10
3.	Parental conflicts	21	5.9
4.	Sibling conflicts	14	3.9
5.	Death of near relative	29	8.2
6.	Children out of control of parents	23	6.5
7.	Stress of responsibilities at work and home, sexual harassment at work place, boredom, sitting at home not being able to work, jet–set life style	19	5.3
8.	Financial problems	27	7.6
9.	Depression due to other medical / psychiatric illnesses	31	8.8
10.	Family history of depressive illness	30	8.5
11.	Unwanted pregnancy	12	3.4
12.	Old age problems (medical, financial, family support)	18	5.1

After reviewing case histories of female patients with depression following concerns were identified among them which lead to depression. (See Table-VI)

DISCUSSION

The present study provided information about the frequency and proportion of psychiatric morbidity in urban population of Karachi. This is perhaps the only study in Pakistan carried out with such large data on the psychiatric OPD seeking treatment at any private clinic. The pattern of psychiatric morbidity observed from the results of this study follow the pattern of psychiatric morbidity in community to some extent. Estimates of the prevalence of psychiatric disorders in general practice worldwide range from 25-75%.[7] The results of present survey revealed that 56% of patients were suffering from Mood Disorders, 23% from Psychotic Disorders, 10% from Anxiety Disorders and the remaining (11%) suffered from other less common psychiatric illnesses.

A recent World Health Organization report predicts that depression will be the leading cause of disability and premature death in the industrial world by the year 2020.[10] In this survey we also found that depression was the most common disorder in patients. 49% of patients were suffering from Depressive Illness alone.

The present survey also showed that more female patients (61.6 % vs 38.4%) came for psychiatric consultations at the clinic in three years duration. In few other studies some authors,[11] have also verified that women are referred to consultation twice as much as men. Many key gender findings have emerged from large scale psychiatric epidemiological research studies. The results of these surveys have also shown that women have greater rates of depression, anxiety disorders and somatization disorders than men.[12] The results of this survey have also shown that rates of psychiatric disorders were high among females than males respectively i.e. Mood Disorders (37.5% vs 18.6%) Anxiety Disorders (5.6% vs 4.8%) Psychotic Disorders (14.3% Vs 9.4%). These observations are consistent with the findings of other studies in literature which have shown that women experience depression about twice as often as men.[13] many hormonal factors may contribute to the increased rate of depression in women-particularly such factors as menstrual cycle changes, pregnancy, miscarriage, postpartum period, pre-menopause, and menopause. Many women also face additional stresses such as responsibilities both at work and home, single parenthood, and caring for children and for aging parents. It has been observed from the results of our study that in our population group causes of psychiatric distress were loneliness, nuclear families, lack of extended family support, social obligations and race for materialistic acquisitions. Lack of meaningful job also leads to psychological distress in educated upper class women. Interestingly most women themselves do not perceive employment and intellectual pursuits important for their self-esteem and well-being. Secondly, male members still dissuade their women to work as it is still a taboo prevailing in Pakistan that women should be "Begums" sitting at home and husbands should be responsible to fulfill their financial and other needs. Hence competitive urban life with jet-set lifestyles often leads women to loneliness, poor self-worth, and self esteem, feeling of emptiness and uselessness in their lives.

Many studies have also shown that men have greater rates of substance related disorders and personality disorders.[14,15] In this study also higher percentages of male patients have diagnoses of Epilepsy, Dementia and Substance Abuse Disorders than females.

In other studies gender differences have been replicated for child and adolescent psychiatric disorders. They are also more likely to show disorders in childhood.[13] Boys are more likely to display so called externalizing disorders like conduct disorders and girls typically show internalizing disorders like depression and anxiety etc. The findings of our study have shown that more boys than girls were diagnosed with Disorders of Childhood and Adolescence particularly ADHD and behavioural problems. (1.7% vs 1.1%)

As regards age, 70% of patients in this survey are in the age range of adulthood. 19% aged 50 years or more. These findings are somewhat different from those found in the literature, which have indicated that 47.6% of the psychiatric patients were older than 50 years.[10] In West people in old age are sent to old homes but in East because of strong family system older people stay at home with whole family and are thus less likely to develop negative feelings about themselves. It could be one of the reasons for low incidence of psychological problems in older age in this part of the world as compared to West.

An interesting reading observed regarding the patients' marital status. Higher percentage of female patients (62% vs 43%) were married than males and higher percentage (54% vs 29%) of male patients were single than females. It can be inferred from these findings that married women are likely to suffer from more psychiatric problems as compared to single

women. The possible reasons for these finding can be related to above-mentioned Begum Type living styles of these married women. Higher incidence of psychological problems in single males can be attributed to lack of proper time and attention given to young boys by parents in upper class. As a result these boys often get themselves indulge in substance-abuse problems and also develop other behavioural problems. Young adults have pressure of society & family to acquire higher professional qualifications for lucrative jobs, & better chances of choice of life partners& status in our materialistic society.

Although men are less likely to suffer from depression than women, still the present survey indicated that 18.6% of male patients are suffering from mood disorders which cannot be ignored. A survey done in USA revealed that three to four million men in the United States are affected by the depressive illness. Men are less likely to admit to depression, and doctors are less likely to suspect it. The rate of suicide in men is four times that of women, though more women attempt it. In fact, after age 70, the rate of men's suicide rises, reaching a peak after age 85. A new study shows that, although depression is associated with an increased risk of coronary heart disease in both men and women, only men suffer a high death rate.[14]

The findings of this study showed percentage of female patients with diagnosis of schizophrenia is higher to male patients. (9.6% vs 6.4%) This is in contrast to the finding of some other studies which showed equal prevalence of schizophrenia in both males and females.[18] It could be due to overall higher number of female patients who came for consultations at clinic over a period of three years.

The results of this study showed that among patients with Anxiety Disorders, most of them were suffering from panic disorder (5.2%) and OCD (4.7%). It was however noticed that prevalence of these disorders in females were bit high (4.9% vs 5.6%). However few studies reviewed in literature have also shown equal prevalence of Anxiety Disorders in both genders.[19]

One case of Anorexia Nervosa came for consultation and this finding is somewhat consistent with literature review which showed comparatively less prevalence of eating disorders in subcontinent regions than other parts of the world.[20] Dementia was found to be one of the commonest psychiatric disorders of older age.

This survey has provided important and information regarding proportion of psychiatric morbidity in urban population in Karachi and can be considered for preventive measures by public education. More studies can help in understanding nature and prevalence of mental disorders in Pakistan and will help in meeting specific mental health needs of varying population groups. There is also need to develop Primary and Secondary prevention policies: the primary care prevention should be aimed at reducing the prevalence of mental health problems. Although the evidence to support the efficacy of interventions in this field is weak, mainly because few, if any, interventions have been tried and/or evaluated in terms of their impact on mental health. It is difficult to persuade governments or international agencies to invest in these programmes rather than primary prevention programmes for psychiatric diseases. The key to secondary prevention, reducing the disability consequent from the disorder, is to strengthen the treatment of psychiatric problems in primary health care. There is relentless need to be much greater cooperation and collaboration between mental health and primary care health workers. Clearly long-term epidemiological surveys are needed to ascertain the prevalence & frequency rates of psychiatric disorders in Pakistan.

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