PSYCHIATRIC MORBIDITY IN PRIMARY CARE IN PAKISTAN: A CROSS-SECTIONAL STUDY

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Date Received: September 10, 2017
Date Revised: May 24, 2018
Date Accepted: May 31, 2018

ABSTRACT

Objective: To study psychiatric problems among those attending primary care clinics in two major cities in Punjab, Pakistan.

Methodology: This was a cross-sectional study. The participants attending primary care clinics in Lahore and Faisalabad in Punjab, Pakistan were interviewed from October 2015 to October 2016. The Mini International Neuropsychiatric Interview (MINI) was used to generate diagnoses based on International Classification of Disease (ICD 10). Analysis was carried out using SPSS v.21.

Results: We were able to interview 282 participants attending the two clinics. The mean age of the study population was 41.2 ±15.1 years. Majority were females (n=191, 70.9%) and were married (n=234, 83.0%). Two hundred and twenty-two participants (78.7%) had a psychiatric problem. Fifty-four (19.1%) patients described to have a positive family history of mental health problems. Almost one-third (n=93, 33.0%) had been in touch with faith or spiritual healer previously. None of the participants had been referred to a psychiatrist. There were no statistically significant gender differences, except for manic episode (p =0.001), psychotic episodes (p =0.000) and alcohol use disorders (p =0.025) which were higher in men, while anorexia nervosa (p =0.000) was higher among women.

Conclusion: This study using a standardized interview found the rates of psychiatric problems to be alarmingly high in primary care in Pakistan. There is a need to further study psychiatric problems in Pakistan using both quantitative and qualitative methods.

Key Words: Psychiatric morbidity, Primary care, Mini international neuropsychiatric interview

This article may be cited as: **Aslam M, Khan N, Khan MA, Bhatti SA, Javed K, Noreen A, et al. Psychiatric morbidity in primary care in Pakistan: A cross-sectional study. . J Postgrad Med Inst 2018; 32(2): 179-83.**

INTRODUCTION

There is strong evidence from research to suggest multidirectional links between physical, mental and emotional health problems[1]. A persons' emotional well-being has a major impact on their physical health. Conversely, their physical health also influences their emotional well-being. Studies from across the world to measure psychiatric morbidity have revealed wide variations in prevalence. The largest study conducted by the World Health Organization (WHO) found the prevalence rates to vary between 10% and 60%2. This study reported the rates of common mental disorders as follows; depression (5-20%), generalized anxiety disorder (4-15%), harmful alcohol use and dependence (5-15%) and somatization disorders (0.5-11%)[2].

Very little is known about psychiatric morbidity among those attending the primary care in Pakistan. A cross-sectional study conducted in the Northern Areas of Pakistan, using the Hospital Anxiety and Depression (HAD) scale reported that half (50%) of the participants had anxiety or depression, a quarter (25%) suffered only from anxiety and 8% from depression. The same study reported that 17% had features of both depression and anxiety[3]. In another study of women attending primary care in Lahore, Punjab Pakistan using Mini International Neuropsychiatric Interview (MINI)[4], nearly two-third of the participants (64.3%) were found to suffer from psychiatric problems. Of this one-third (30.4%) suffered from major depressive disorder[5]. Both studies recruited only women. In both these studies, the reported rate of psychiatric morbidity was relatively high compared with

the WHO study[2]. We planned to conduct an interview based study in primary care in Pakistan that included both men and women. There is a need to conduct further research in this area with improved methodology. The results of these surveys can help improve mental health in primary care by planning services and better education of the primary care physicians in detection and management of mental health problems. This paper reports the results of a cross-sectional study of psychiatric problems in two primary care practices from Lahore and Faisalabad in Punjab, Pakistan.

METHODOLOGY

This was a cross-sectional study. No prior sample size calculations were made. The participants attending primary care clinics in Lahore and Faisalabad in Punjab, Pakistan were interviewed between October 2015 and October 2016. Primary care attendees of both genders, between the ages of 18 and 65 were selected. The exclusions criteria were mental retardation and serious drug dependence. Every seventh participant was approached. Those who consented to participate in the study were provided detailed written information about the study and a written consent was acquired. Mostly these participants had visited general practitioners for their physical health complaints. Private sector clinics mostly provide primary care in urban areas in Pakistan and patients pay out of pocket for the service. Both of the family physician practices were in private sector.

A demographic details sheet was used to collect information regarding age, education, marital status and family history as well as the history of mental health problems. The Mini International Neuropsychiatric Interview (MINI) was used to generate International Classification of Disease (ICD 10) diagnoses. MINI has been tested against Composite International Diagnostic Interview (CIDI) and Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). It has been used previously in Pakistan[4-6].

Five interviewers, who were Masters Degree holder psychology trainees with a minimum of 2 years of experience of working in clinics under supervision, were trained for five days in using this interview by FN. Participants rated simulated interviews to ensure inter-rater reliability. The practice continued until a consensus rating was agreed for each item. In order to complete the training satisfactorily, each interviewer had to achieve an agreement in over 85% of the items. The project had approval from Lahore Institute of Research and Development, Lahore Pakistan.

The data were collected in 2015-16 in face-to-face interviews with the participants. It was not possible to randomise the participants for interview beforehand as the clinics in Pakistan provide walk-in services. Interviewers explained the purpose of the study and took an informed written consent. Every seventh participant after the first one was interviewed. If the participant did not consent, the interviewers moved on to the next participant who they could interview.

Analyses were carried out using SPSS v22. The initial analyses included calculations of frequencies and percentages. A chi-square test was used to find out the gender differences in psychiatric diagnoses.

RESULTS

We were able to interview 282 participants attending the two clinics. The mean age of the study population was 41.2 ±15.1 years. Out of them, 191 (70.9%) were females, 234 (83.0%) were married, 147 (52.1%) were living in a nuclear family system, 81 (28.7%) had no formal school education, 38 (13.5%) were employed and the mean income was 25,371.15 ±29,780.71 Rupee. Fifty-four patients described to have a positive family history of mental health problems. This included depression in 31, phobia in 15, anxiety in 6 and conversion disorder and sleep disturbance in 1 patient each. Nearly one-third (n=93, 33.0%) had been in touch with a faith or spiritual healer previously. None of the participants had been referred to a psychiatrist. The details are given in Table 1.

Participants presented with a variety of physical and psychological complaints to the primary care physicians. Out of 128 (44.3%) presenting primarily with physical complaints, 37 (13.1%) presented with high blood pressure followed by 22 (7.8%) with stomach problems. More than half (n=154, 55.7%) presented with psychological complaints which included 44 (16.7%) with sadness and 33 (11.7%) with sleep disturbance (Table 2).

More than three quarter (n=222, 78.7%) of the participants were diagnosable with a psychiatric diagnosis, using the interview schedule. The participants had one or more co-morbid psychiatric conditions. When chi square was applied, there were no statistically significant gender differences, except for manic or psychotic episodes and alcohol use disorders, which were higher in men, while anorexia nervosa was higher among women. The details of these are given in Table 3.

DISCUSSION

As far as we are aware, this is the first survey of participants of both genders attending primary care clinics from Punjab, Pakistan. The rates of psychiatric problems among the participants were higher than a previously reported survey from the same geographical regions, which included only women[5].

In Pakistan, health services are provided by three sectors; governments run health care system, private health care practitioners and alternative practitioners.

Table 1: Demographic details of the sample (n=282)

S. No.	Variables	Frequency	Percentage
Gender	Male Female	91 191	29.1 70.9
Marital Status	Married Unmarried	234 46	83.0 17.0
Educational Status	Uneducated Middle Matriculate Intermediate Bachelors Degree Masters Degree	81 70 68 21 18 16	28.7 24.8 24.1 7.4 6.4 5.6
Work Status	Unemployed Employed Business Housewives Student Retired	15 38 38 159 22 7	5.3 13.5 13.5 56.4 7.8 2.5
Family System	Nuclear Joint	147 131	52.1 47.9
History of Mental Illness	Yes No	54 228	19.1 80.9
Contact with Spiritual Healer	Yes No	93 189	33.0 67.0

Table 2: Details of psychiatric diagnoses and comparison between the two genders

S. No.	Physical Complaints (n=128)	Number	Percentage	Psychological Complaints (n=154)	Number	Percentage
1	High Blood Pressure	37 (28.9)	13.1%	Sadness	44 (28.6)	11.7%
2	Stomach Problems	22 (17.2)	7.8%	Sleep Disturbance	33 (21.4)	7.8%
3	Fever	21 (16.4)	7.4%	Hopelessness	15 (9.7)	5.3%
4	Heart Problems	14 (10.9)	5.0%	Suicidal Thoughts	12 (17.2)	4.3%
5	Kidney Problems	9 (7.0)	3.2%	Muscle Tension	11 (7.8)	3.9%
6	Body Aches	6 (4.9)	2.1%	Irritability	11 (7.8)	3.9%
7	Vomiting	3 (2.3)	1.1%	Aggressive Behavior	7 (4.5)	2.5%
8	Skin Problems	3 (2.3)	1.1%	Loss of Energy	7 (4.5)	2.5%
9	Diarrhoea	3 (2.3)	1.1%	Pressure Of Speech	6 (3.9)	2.1%
10	Choking	3 (2.3)	1.1%	Phobia	4 (2.6)	1.4%
11	Other Complaints	7 (5.5)	4.5%	Flight of Ideas	4 (2.6)	1.4%

Table 3: Details of participants and their presenting physical and psychological complaints

S. No.	Psychiatric Diagnoses	Number (%)	Male, n=91 [n (%)]	Female, n=191 [n (%)]	P value*
1	Depressive Disorder	133 (59.9%)	33 (36.3%)	100 (52.4%)	0.199
2	Panic Disorder	131 (59.0%)	31 (34.1%)	100 (52.4%)	0.081
3	Generalized Anxiety Disorder	106 (47.7%)	27 (29.7%)	79 (41.7%)	0.229
4	Post-traumatic Stress Disorder	79 (35.6%)	30 (33.0%)	49 (25.7%)	0.105
5	Agoraphobia	75 (33.8%)	19 (20.9%)	56 (29.3%)	0.178
6	Suicidality	75 (33.8%)	14 (15.4%)	61 (31.9%)	0.060
7	Social Phobia	39 (17.6%)	10 (11.0%)	29 (15.2%)	0.804
8	Obsessive Compulsive Disorder	27 (12.2%)	8 (8.8%)	19 (9.9%)	0.947
9	Manic Episode	26 (11.7%)	16 (17.6%)	10 (5.2%)	0.001*
10	Psychosis	23 (10.4%)	14 (15.4%)	9 (4.7%)	0.000*
11	Anorexia Nervosa	20 (9.0%)	0 (0.0%)	20 (10.5%)	0.000*
12	Bulimia Nervosa	12 (5.4%)	0 (0.0%)	12 (6.3%)	0.073
13	Alcohol Use Disorder	3 (1.4%)	3 (3.3%)	0 (0.0%)	0.025*
14	Substance Use Disorder	1 (0.5%)	1 (1.1%)	0 (0.0%)	0.294

*p value <0.05

Nearly one-third (30%) of health care services are provided by public health care sector, while the rest (70 %) are provided by private health care sector[7]. It is to be noted that the public sector provides primary care services only in the rural areas. In urban centres, private primary health care providers remain the frontline service providers. These providers not only provide health care for the physical problems, but also for the psychological and mental health problems.

We found the rates of psychosis to be very high, while the rates of alcohol and drug problems were very low. Psychiatric epidemiology studies in the community[8-10] as well as in primary care in Pakistan have found the prevalence of psychiatric disorders to be very high[3,5]. The rates of low alcohol and substance use disorders might be due to religious, social and cultural taboos attached with disclosure. The possible explanations for high rates of psychiatric problems include exposure to violence in the form of repeated terrorist attacks and graphic portrayal of the violent incidents on media (television & newspaper), lack of political stability and rapid urbanisation that has disrupted the informal support system in communities. Rapid urbanisation has resulted in an influx of population in the major cities that has outstripped the infrastructure development like roads, safe and steady water supply and other civil amenities. These day-to-day problems and challenges have created ongoing stress for people.

The health care system has limited capacity to identify, diagnose and treat psychiatric morbidity. This might explain the high prevalence of chronic psychiatric problems, such as schizophrenia. There are no studies but our speculation that high morbidity is a combination of high rates of new cases as well as low rates of untreated chronic cases. The prevalence of psychiatric morbidity in people with physical health issues is high across the world. Any physical health problem in Pakistan puts additional stress on the sufferer and their family. The cost of treatment and inability to work puts additional strain on the family's resources.

LIMITATIONS

These results need to be interpreted with caution as this small-scale cross-sectional study was limited to only two private practices in Lahore and Faisablad. The results might not apply to smaller cities or the rural areas.

CONCLUSION

This small-scale cross-sectional study revealed unusually high rates of psychiatric problems among those attending the primary care in Pakistan.

RECOMMENDATIONS

This study highlights the need for further studying the psychiatric problems in primary care. This will allow us to assess the problem in-depth and will help further develop the skills of the general practitioners and probably in influencing the government policies. Future research is required in this area with larger samples, including both rural and urban primary health care centres and with improved methodology. This future work

should also explore contributory factors. Finally, there is a need to explore qualitatively the reasons for high rates of mental health problems among primary care attendees to better inform interventions.

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CONTRIBUTORS

MA and FN conceived the idea and planned the study. NK, MAK, SAB, KJ, AN, RS, SM and MYK helped in acquisition of data. MI and FN did statistical analysis, wrote & critically revised the manuscript and supervised the study. All authors contributed significantly to the submitted manuscript.