

FREQUENCY & SEVERITY OF DEPRESSION AMONG ADULT POPULATION OF DISTRICT PESHAWAR

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ABSTRACT

Objective: To estimate the prevalence and severity of depression among the adult population of District Peshawar.

Material and Methods: A cross sectional study was conducted in the District Peshawar, by the department of community medicine Khyber, Medical College Peshawar; from October 2016 to March 2017; in which a total of 410 adults, both male and female, of ages 18 and above years were selected from the study areas on the basis of Multistage probability sampling techniques. Physical Health Questionnaire-9 (PHQ-9) structured questionnaire was used to collect data regarding the prevalence and severity of depression. Data was analyzed by SPSS and presented in forms of tables and graphs.

Results: Our results showed that the prevalence of depression was 85.85%. Out of the total prevalence; approximately 80.40 % of the population had mild, 12.50 % had moderate and 7.10 % had major depression; according to the level of degree of depression on PHQ-9 questionnaire.

Conclusions: The prevalence of depression among the adult male and female population of district Peshawar was high, and the medical and paramedical services needs to be improved to adequately manage the high frequency of depression among the adult population.

Key Words: Prevalence, Depression, Severity, Adults

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INTRODUCTIONS

Globally, depression is an important public-health problem, and is one of the leading causes of disease morbidity and mortality both in developed and developing countries¹. Depression is one of the most common major mental illnesses and affects 5% to 20% of the adult population worldwide². Major depression is a complex disorder that does not result from either genetic or environmental influences alone but rather from both³. The risk for major depression was approximately many times as high in the high-risk offspring's and in those vulnerable to food security problems^{4,5}. In a study conducted in china, revealed found that 7.0%

had mild; 11.3% had moderate and 75.1% had severe depression, whereas in another study, the cumulative prevalence of depression ranged from 13% to 17%⁶. A strong relationship between gender, behavior problems, stressful events, exposure to physical & sexual abuse, cigarette smoking, alcohol use, and depression was well documented in many international studies^{7,8}. Moreover, individuals without employment, past psychiatric history and injection drug users (IDUs) were at higher risk for depressive disorders^{6,9}. Furthermore, depression showed strong association with admitted patients, pregnancy & Peri-partum anxiety, and childhood adversity^{10,11}. Women's vulnerability to the onset of major depressive disorder has substantial evidence, and was significantly associated with female gender, female obesity, old age, urban residence, low socioeconomic status, low education, recent stressful life event, unplanned pregnancy, childhood trauma, and history of intimate partner violence¹²⁻¹⁵.

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According to the Global Burden of Disease Study 2010, (GBD, 2010); it was estimated that in both

developing and developed countries, a significant proportion of the health problems came from mental, neurological and substance use disorders; and had prevalence of 56.7%, 28.6%, and 14.7% respectively and thus contributed significantly in the morbidity and mortality indicators of any community. Thus only cost effective interventions, health planning and evidence based research is vital to develop better prevention and management strategies^{16,17}.

Pakistan is a developing country and thus is facing double burden of diseases. The prevalence of depression is on rise in Pakistan due to poverty; unemployment; illiteracy, disasters both manmade and natural; increase physical, sexual, substance & drug abuse; alcohol use; growing population; familial causes etc; so this cross sectional study was proposed to estimate the correct prevalence and level of severity of depression among the adult population of district Peshawar.

MATERIAL AND METHODS

A cross-sectional study was conducted by the Department of Community Medicine Khyber, Medical College Peshawar; to determine the prevalence and risk factors of depression among 410 adult populations of District Peshawar; from October 2016 to March 2017. Based on 95 % CI, and 50 % prevalence; a sample size of 410 adults; both male and female of 18 & above years, was selected through simple random technique from the rural and urban study areas; according to WHO sample size calculation formula for a cross sectional study. Adult’s not permanent resident of Peshawar or residing in semi-urban areas was excluded from the study. A PHQ-9 structured questionnaire was used to estimate the prevalence and severity of depression among the study population.

After taking approval from the Ethical Committee; data was collected through a structured questionnaire i.e. Patient Health Questionnaire–9; regarding the prevalence and severity among 410 individuals of District Peshawar. Initially, areas were selected from the target population of district Peshawar; and then the study participants were selected by simple random technique. Finally, the Microsoft office 2010 and SPSS version 16.0 were used for statistical analysis and results were presented in form of tables and graphs.

The Patient Health Questionnaire – 9, consists of nine questions to be answered / marked as ✓; for options i.e. Not at all, Several days, More than half the days & Nearly every day, and were given scores of 0, 1, 2, and 3 respectively. An individual was categorized as No, mild, moderate and severe depression on the basis of total score according to the Table No. 1; including Question #1 and #2.

RESULTS

Depression Severity among the study population is shown in Table 1. The demographic features of the respondents (n=410) were that; approximately 66.10% had age below 37 years while the remaining 33.90% had age above 37 years; approximately 64.15% of study population had monthly income below 15000 per months while the remaining 33.85% had above 15000 per month. Moreover, 26.1% were housewives, 19.27% were students, and approximately 17.32 & 13.66% were government servants & labors respectively. About 48.05% were literate and 57.80% were positive for current tobacco smoking status; as was shown in Table 2.

Among the study population (n=410); approximately 85.85% were positive for depression and the remaining 14.15% were labeled as having no depression on the basis of PHQ-9 Questionnaire, as shown in Table 3.

The level of degree of depression among the depressed respondents (n=352) was that; approximately 80.40% had mild depression; 12.50 had moderate depression while 7.10% had severe depression on the basis of PHQ-9 Questionnaire as shown in Table No. 4.

Table No 1: For Interpretation of Depression Severity among the study population

Total Score	Depression Severity
0	No Depression
1-9	Mild Depression
10-14	Moderate Depression
15-27	Severe Depression

DISCUSSION

According to study results; 85.85% (n=352) had prevalence on PHQ-9 depression assessment tool. Our study found higher prevalence as compared to international studies, showing prevalence of 23%¹⁸, 25.1%¹⁹, 38.5%²⁰ and 41%²¹. In our study, the prevalence of severe depression was 7.1%; while in other similar studies showed prevalence of 16.2%²², 35%²³, 3.9%²⁴, and 1.1%¹⁹. Thus our study prevalence was more as compared to studies conducted in an Italian population based study of 2014¹⁹; and in another study conducted in 2015 in Canada²⁴; and less as compared to findings from the 2014 National Comorbidity Survey Replication JAMA of United States²²; and systematic reviews of global population based studies²³.

Approximately, 80.40% (n=283) were found to have mild depression, 12.50 % (n=44) were found to have moderate depression and 7.10 % (n=25) were having major depression. In a systematic review of

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Table No 2: Demographic Features of Respondents

Demographics	Variables	Frequency and %ages
Age Groups	18-27 yrs	123(30)
	28-37 yrs	148(36.1)
	38-47 yrs	78(19.02)
	48 & above	61(14.88)
Gender Distribution	Male	241(58.78)
	Female	169(41.22)
Monthly Income	< 15000	263(64.15)
	15000-30000	70(17.07)
	30000-45000	41(10)
	45000 & Above	36(8.78)
Occupations	Labor	56(13.66)
	Govt servants	71(17.32)
	Housewife	107(26.1)
	Students	79(19.27)
	Others	97(23.66)
Educational Background	Literate	197(48.05)
	Illiterate	213(51.95)
Tobacco Use	Yes	237(57.8)
	No	173(42.2)

Table No 3: The frequency of depression among the study respondents

S. No	Findings	Frequency and %ages
a	No Depression	58 (14.15)
b	Depression	352 (85.85)
Total		410 (100)

Table No 4: The level of degree of depression among the study respondents

S. No	Degrees of Depression	Frequency and %ages
a	Mild Depression	283 (80.40)
b	Moderate Depression	44 (12.50)
c	Severe Depression	25 (7.10)
Total		352 (100)

various international studies, showed wide range of depression prevalence from 10% to 85% and thus our study findings showed similarity with maximum limit i.e. 85.85%²⁵. In a study conducted in China, it was found that 7.0% had mild; 11.3% had moderate and 75.1% had severe depression; whereas in our study, only 7.10

% had severe depression, 12.50% had moderate and 80.4% had mild degree of depression⁹. Thus our study findings only reported similar prevalence of moderate depression whereas prevalence of mild and severe depression revealed difference with international studies.

CONCLUSIONS

Prevalence of depression among the adult male and female population of district Peshawar was high and showed higher frequency of mild depression, and low frequency of severe depression. Moreover, the moderate depression was according to the international findings.

RECOMMENDATIONS

Higher prevalence of depression among the adult population required immediate and early interventions for the control and prevention of depression to reduce the frequency and mostly the severe degree of depression among the adult population.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

Ishtiaq M: Planned study

Imranullah: Manuscript writing

Afridi MI: Manuscript writing

Khan K: Statistical analysis

Ahmad Z: Data collection and manuscript writing

Anwar M: Data collection and manuscript writing

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.