A Study on Prevalence of Depression among Adult Females in a Slum Area of Purba Barddhaman District, West Bengal

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Abstract:Background: *Depression is a leading cause of disability and the most common psychiatric disorder. This is a serious condition that can impact every area of women's life.**Objectives:** To assess the prevalence of depression and to find out its association with different socio-demographic characteristics amongst adult women in an urban slum of Purba Barddhaman district, West Bengal.**Methods:** It was a community based observational, descriptive study; cross-sectional in design; conducted in a slum area in Burdwan Municipality during April to October 2017. Females aged 18 years and above residing in the study area during the study period constituted the study population. Subjects were selected to participate in the study applying inclusion and exclusion criteria. House to house visits were conducted and data was collected using a predesigned, pretested interview schedule along with validated Patient Health Questionnaire (PHQ 9) in Bengali. Collected data was compiled and analyzed in SPSS, version19 software. Chi-square test was used to examine the statistically significance association between socio-demographic characteristics with depression. **Results:** Prevalence of depression in the study subjects was 80.7% with mild, moderate and very severe depression being 31.6%, 40.7%, and 8.4% respectively. Occupation and type of family had statistically significant association with depression. **Conclusion:** Adult females in the study area were facing high burden of depressive disorders. Significant association was found between depression and occupation and type of family. Further large scale studies are recommended to strengthen the evidence generated in the current study.*
Key Words: *Depression, Slum, Urban, Adult female.*

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I.   Introduction

Depression is an illness that affects both mind and body. It is a leading cause of disability, workplace absenteeism, decreased productivity and high suicide rates[1,2]. It is the most common psychiatric disorder in general practice and about one in ten patients seen in the primary care settings suffer from some form of depression.[3] Depression is characterized by persistent sadness and a loss of interest in activities that one normally enjoy, accompanied by an inability to carry out daily activities, for at least two weeks. In addition, people with depression normally have several of the following symptoms: a loss of energy; a change in appetite; sleeping more or less; anxiety; reduced concentration; indecisiveness; restlessness; feelings of worthlessness, guilt, or hopelessness; and thoughts of self-harm or suicide.

According to various community-based surveys in India there is 6-7% prevalence for common mental disorders & 1-2% for severe mental disorders.[4]Depression is a serious condition that can impact every area of women's life. It affects social life, family relationships, career, and one's sense of self-worth and purpose. Depression is widely prevalent amongst women in India across all age groups. The multiple roles played by the Indian women contribute to stress, thereby making her susceptible to depression, which is often under reported due to stigma. [5]

According to the World Health Organization (WHO), the lifetime prevalence of Major Depressive Disorder (MDD) is 10–25% for women and 5–12% for men. It is also the most important precursor of suicide[6].Difference between genders have been reported in the age of onset of symptoms, clinical features, frequency of psychotic symptoms, course, social adjustment and long-term outcome of severe mental disorders.[7]

Several studies have been conducted on depression among adult female in both rural and urban set up. But still there is need for information from different socio-cultural settings as well as from vulnerable section of population. In this context, the current study was an attempt to add some extra piece of information in the existing body of evidence. The objectives of the study were to assess the prevalence of depression and its association with different socio-demographic characteristics amongst adult women in an urban slum of Purba Barddhaman district, West Bengal.

II. Materials And Methods

It was a community based descriptive study; cross-sectional in design; conducted in a slum area of a particular ward of Burdwan Municipality during April to October 2017. The selected slum area is the urban field practice area of the department of Community Medicine, Burdwan Medical College and Hospital.

Females aged 18 years and above residing in the study area for at least one year constituted the study population. Subjects were selected to participate in the study applying inclusion and exclusion criteria. Inclusion criteria being inhabitant adult females of the slum giving informed verbal consent to participate in the study whereas inhabitants who were not available for data collection for two consecutive visits were excluded from the study. It was intended to include all the eligible subjects by complete enumeration. By house to house visit of all the 180 families in the slum, 160 families could be covered, 20 families could not be approached even after two repeat visits. Finally a total of 275 adult females were included as study subjects.

Study subjects were interviewed using a predesigned, pretested interview schedule for data collection along with validated Patient Health Questionnaire (PHQ 9) in Bengali[8]. PHQ 9 included total 9 questions to assess the level of depression. For every question there were 4 options and scoring was done accordingly in the range of 0 to 3 for every question. The score for every individual with this tool ranges from 0 – 27. Score ranging 0-4 was considered as having no depression and scores in the range of 5-9, 10-14, 15-19 and 20-27 were considered as mild, moderate, moderately severe and very severe depression respectively[8].

The schedule was self-administered for the literate subjects and the help of health workers was sought for filling the schedule for 29 illiterate participants. The respondents were explained regarding the purpose of the study and verbal informed consent were taken. Cross-checking of medical records was undertaken if available.

Prior to data collection permission and cooperation were sought from the district health authority to conduct the study. Cooperation was also sought from the health workers of the study area. Ethical approval was obtained from the Institutional Ethics Committee of Burdwan Medical College, West Bengal. Collected data was compiled and analyzed in SPSS, version19 software. Chi-square test was used to study the association between prevalence of depression and different socio-demographic variables. Significance level was considered at p value <0.05.

III. Results

Background characteristics:

In the present study 275 adult females were interviewed and all the study participants were married, Hindu females. Among the study subjects 45% were aged between 18-25 years and 54.5% belonged to joint families. Out of the 275 study subjects 3% were widows. Mean age of the study subjects was 25 years.

In this study 44.8% of the study subjects had received secondary level of education and 10.5%, 12.4% and, 13.8% were illiterate, just literate and received primary level of education respectively. Regarding education of husband of the study subjects 45.0%, 33.3% and 13.1% received higher secondary, middle school and primary school level education and 6.0% were illiterate.

As far as their occupation was concerned 49.1% of the study subjects were homemakers and 32.0% were mill workers, whereas 55.8% of the husbands were mill workers and 18.7% were rickshaw pullers or Toto drivers.

In the current study 66.5%, 18.9% and 8.7% subjects belonged to upper-lower, lower middle and lower socio-economic status respectively as per modified Kuppuswamy socio-economic scale (April 2016). Almost 86% of the husbands of the study subjects had some sort of addiction.

Depression and correlates:

Overall prevalence of depression among adult females in the study was 80.7% with mild, moderate and severe depression being 31.6%, 40.7%, and 8.4% respectively (Table 1).

There was statistically significant association between depression with occupation of the subjects and type of their family. No significant statistical association was found between depression and age, education, socioeconomic status and addiction of husband of the study subjects (Table 2)

TABLES

Table 1: Distribution of the study subjects according to level of depression (n=275)

Level of depression	No.	Percentage
No	53	19.3
Mild	87	31.6
Moderate	112	40.7
Very Severe	23	8.4
Total	275	100.0

Table 2.Association of socio- demographic characteristics with prevalence of depression among adult females (n=275)

Characteristics	Depression		Statistical significance
	Absent (%)	Present (%)	
Age (years)			
$\leq$25	29 (10.5)	96 (34.9)	χ^2=2.272, df = 1, P = 0.132
>25	24 (8.7)	126 (45.8)	
Education			
Illiterate & up to Primary	35 (12.7)	139 (50.5)	χ^2=0.216, df = 1, P Value = 0.642
Above Primary	18 (6.5)	83 (30.2)	
Occupation			
Homemakers	36 (13.1)	99 (36.0)	χ^2= 9.318, df = 1, P Value = 0.002
Working women	17 (6.2)	123 (44.7)	
Socio economic status*			
Lower SES	43 (15.6)	156 (56.7)	χ^2= 13.370, df = 1, P Value = 0.112
Higher SES	10 (3.6)	66 (24.0)	
Types of family			
Nuclear	36 (13.1)	89 (32.4)	χ^2= 13.370, df = 1, P Value = 0.000
Joint	17 (6.2)	133 (48.3)	
Addiction of husband			
Addicted	50 (18.7)	181 (67.8)	χ^2= 3.469, df = 1, P Value = 0.063
Not Addicted	3 (1.1)	33 (12.4)	

*Kuppuswamy scale-up to III were considered as lower SES and above III were considered as higher SES

IV. Discussion

The present study was conducted among adult females in an urban slum area of Burdwan Municipality with the help of PHQ 9 scale for measurement of prevalence of depression and some associated socio demographic characteristics of the study subjects.

According to the present study total prevalence of depression was 80.7%. Among the study subjects 19.3% was found having no depression and 31.6%, 40.7% and 8.4% respectively were suffering from mild, moderate and severe depression.

According to a comparative study on depression among working and non-working women conducted by Balaji A and Sarumathi V et al[9] in Chennai the prevalence of moderate depression, moderately severe depression and severe depression were 16%, 4.85% and 2.6% respectively whereas 42% of the non-working women and 38% of the working women had no depression. The present study was conducted in urban slum area and the Chennai based study was conducted in both rural and urban area. This might be the cause behind higher prevalence of depression in the present study.

A study conducted in Karachi, Pakistan by Zahidie A etal[10]. (2001-2011) to assess the prevalence and risk factors for depression among married women belonging to higher and lower socioeconomic status revealed the prevalence of depression as 65%. The present study as well as the Karachi based study was conducted in urban area and both showed high prevalence.

In the present study significant association was found between depression and occupation and type of the family. No significant statistical association was found between depression and age, education, socioeconomic status and addiction of husband of the study subjects.

The results of the study conducted in Karachi, Pakistan by Zahidie A etal[10] (2001-2011) revealed stressful life events, domestic violence, poor social support, lack of marital rights contribute to cause depression in Pakistani society.

According to the Chennai based study economic problems, workplace problems and relationship problems were the main factors associated with depression among working women whereas economic problems, family problems, relationship problems and no personal life satisfaction were the risk factors for depression among non-working women[9].

The present study was conducted in only one purposively chosen urban slum area, so the study results could not be generalized. The prevalence of depression was assessed with the help of self-reported data, which might be subject to recall bias and influenced by some cultural factors.

V. Conclusion

Adult females in a slum area of Burdwan Municipality are facing high burden of depressive disorders. This study has found significant association between depression with occupation and type of family. These findings might have important policy implications for reducing morbidity due to depressive disorders among adult women. Further large scale studies are recommended in future to support and strengthen the evidence generated in the current study.

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