Original Research Article

Socio-demographic co-relates of depression among housewives in rural area of district Ludhiana

Urvashi¹*, Sangeeta Girdhar², Anurag Chaudhary²

Department of Community Medicine, ¹Guru Gobind Singh Medical College and Hospital, Faridkot, ²Dayanand Medical College and Hospital, Ludhiana, Punjab, India

Received: 22 February 2019
Revised: 04 April 2019
Accepted: 05 April 2019

*Correspondence:
Dr. Urvashi,
E-mail: urvashi9kataria9@gmail.com

ABSTRACT

Background: Depression is the most common psychiatric disorder in general practice. It is much more common among women than men, with female/male ratio roughly 2:1. In today's hectic life, stress is increasing in housewives. Very few data is available on depression among housewives in India. So the present study is aimed to assess the prevalence of depression and study its epidemiological co-relates among housewives aged 18-59 years in rural area of district Ludhiana. Objectives were to assess depression among housewives aged 18-59 years in a rural area and determine the association of depression with socio-demographic co-relates.

Methods: This study is a community based cross-sectional study carried out in the field practice area of Department of Community Medicine, Dayanand Medical College and Hospital, Ludhiana, Punjab. 300 subjects were selected by systematic random sampling. Assessment of depression among the housewives was done by using Patient Health Questionnaire-9 (PHQ-9).

Results: In the present study, 43% of the subjects were found to have depression. Mean age of subjects with depression was found to be 42.4 (±10.3) years. There was an increasing trend of depression among housewives with increasing age (p=0.000). Inverse relationship was found between level of education and depression (p=0.000). Lower socio-economic status was found to be associated with higher rates of depression (p=0.039).

Conclusions: Depression was seen to be on higher side among housewives in rural area of Ludhiana. Housewives should be educated about warning signs and symptoms of depression and motivated to avail the primary health care services.

Keywords: Depression, Housewives, Age, Education, Socio-economic status

INTRODUCTION

Mental health is “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community”.¹ With increasing stress in life, mental illnesses are increasing. There are a number of mental illnesses, which include depression, anxiety, eating disorders, bipolar disorder, psychosis, self harm, excessive alcohol and other drug use.

Depression is the most common psychiatric disorder in general practice. It is a significant contributor to the global burden of disease and affects people in all communities across the world.² About 1 in 10 patients seen in the primary care settings suffer from some form of depression.³
Housewives are the backbone of Indian society. Chronic stresses related with traditional female roles lead to a higher prevalence of depression among women than men.\(^4\) The role of being modern women has added more tensions and stress. Very few data is available on depression among housewives in India. So the present study is planned to assess the prevalence of depression and study its epidemiological co-relates among housewives aged 18-59 years in rural area of district Ludhiana.

**METHODS**

This study is a community based cross-sectional study carried out in the field practice area of Department of Community Medicine, Dayanand Medical College & Hospital, Ludhiana, Punjab from 01 March 2014 to 28 February 2015. The minimum sample size required for the study was calculated as follows.

\[
n = \frac{Z^2 \cdot p(1-p)}{d^2}
\]

Where  
\(n\) = sample size

\(p\) = expected prevalence or proportion

\(d\) = precision rate

According to a study on depression in South India, the prevalence of depression in women is 16.3\%.\(^4\)

Hereby taking,

\[Z = 1.96 \text{ (Approx. } = 2, \text{ for level of confidence of 95 %)}\]

\[p = 16.3 \text{ (=0.163)}\]

\[d = 0.05\]

\[n = \frac{(2)^2(0.163)(1-0.163)}{(0.05)^2}\]

\[n = 218\]

However, we included 300 subjects in our study.

The selection of the subjects was done by systematic random sampling. A list of housewives was prepared from family folders of 15 villages. There were total 6839 housewives in 15 villages. First subject was selected randomly by currency note method considering the last digit of the currency note. Subsequent subjects were selected as per sampling interval. A pretested proforma was used for collecting information by house to house visits. Informed consent was obtained from study subjects. Assessment of depression was done by using self reported instrument Patient Health Questionnaire-9 (PHQ-9). The proformas were then analysed by using SPSS software version 20 using statistical techniques like percentage and chi-square test. The study was duly approved by the Institutional Ethics Committee of Dayanand Medical College and Hospital, Ludhiana.

**RESULTS**

A total of 300 subjects aged 18-59 years were studied regarding their socio-demographic profile. In a total of 300 subjects interviewed, 65 (21.7\%) subjects were in age of 20-29 years, 93 (31\%) in 30-39 years, 78 (26\%) in 40-49 years and 64 (21.3\%) were in age group of 50-59 years. The mean age of the subjects was 38.89±10.25 years.

Majority of subjects 270 (90.0\%) were living with husband, 27 (9\%) subjects were widow and only 03 (1\%) subjects were either divorced or separated from husband. Maximum no. of subjects i.e. 122 (40.7\%) had 9-12 years of schooling. There were 34 (11.3\%) subjects who had no schooling, 64 (21.3\%) subjects with 1-5 years of schooling, 60 (20\%) with 6-8 years, and 20 (6.7\%) with 13+ years of schooling.

**Table 1: Socio-demographic characteristics of the study subjects.**

| Socio-demographic characteristics | Number | Percentage (%) |
|----------------------------------|--------|----------------|
| **Age (years)**                  |        |                |
| 20-29                            | 65     | 21.7           |
| 30-39                            | 93     | 31.0           |
| 40-49                            | 78     | 26.0           |
| 50-59                            | 64     | 21.3           |
| Mean age                         | 33.9±10.3 |                |
| **Marital status**               |        |                |
| Living with husband              | 270    | 90.0           |
| Widow                            | 27     | 9.0            |
| Divorced/Separated               | 03     | 1.0            |
| **Education**                    |        |                |
| No schooling                     | 34     | 11.3           |
| 1-5 yrs                          | 64     | 21.3           |
| 6-8 yrs                          | 60     | 20.0           |
| 9-12 yrs                         | 122    | 40.7           |
| 13+ yrs                          | 20     | 6.7            |
| **Socio-economic status**        |        |                |
| Low                              | 06     | 02             |
| Low middle                       | 152    | 50.7           |
| High middle                      | 137    | 45.7           |
| High                             | 05     | 1.6            |

Majority of subjects 289 (96.3\%) were from middle socio economic group comprising 152 (50.7\%) from low middle and 137 (45.7\%) from high middle socio economic group. There were only 6 (2\%) and 5 (1.6\%) subjects in high and low socio-economic status groups, respectively (Table 1).

Depression was assessed using Patient Health Questionnaire-9 (PHQ-9) scale. As per PHQ-9, 129 subjects (43\%) were found to have depression (Figure 1).
There was an increasing trend of depression among housewives with increasing age. (p=0.000) (Figure 2).

Inverse relationship was found between level of education and depression. (p=0.000) (Figure 4).

Lower socio-economic status was found to be associated with higher rates of depression (Figure 5).

**DISCUSSION**

Depression is a serious condition for people of all ages. Depression may occur at any age during a women’s life irrespective of educational and economic status. Women’s reproductive cycle and post menopause bring fluctuations in mood that include depression. Women aged between 18 and 50 years are at highest risk.

In the present study, the mean age of subjects was 33.9±10.3 years (Table 1). Mean age of subjects with depression was found to be 42.4 (±10.3) years and median age was 38 years.

It was seen that majority of subjects i.e. 90% were living with husband, 9% subjects were widow and 1% i.e. 3

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**Figure 1: Depression as per PHQ-9.**

There was an increasing trend of depression among housewives with increasing age. (p=0.000) (Figure 2).

**Figure 2: Association of depression with age of the subjects.**

**Figure 3: Association of depression with marital status.**

The comparison of depression with respect to marital status was found to be statistically significant (p=0.001) (Figure 3).

**Figure 4: Association of depression with educational status of subjects.**

Inverse relationship was found between level of education and depression. (p=0.000) (Figure 4).

**Figure 5: Association of depression with Socio-economic status.**

Lower socio-economic status was found to be associated with higher rates of depression (Figure 5).
subjects were either divorced or separated from husband (Table 1).

However, a study “An epidemiological study of mental disorders at Pune, Maharashtra” conducted by Deswal et al reported that 77% subjects were married, 14.2% were never married and 8.8% were either widowed or divorced.5

Education has an important influence on psychosocial characteristics such as efficacy and self-esteem both of which have a moderator effect on depression.

In the present study, it was observed that 11.3% subjects had no schooling, 21.3% subjects had 1-5 years of schooling, 20% had 6-8 years and 6.7% had 13+ years of schooling. Maximum number of subjects (40.7%) were educated for 9-12 years (Table 1).

This is in consonance with the findings of Deswal et al who reported 15.7% subjects were illiterate and maximum no. of subjects (34.4%) were educated for 9-12 years.8

The relationship of socioeconomic status to mental illnesses is one of the most important aspects of the relationship of social structure to mental health.

Majority of subjects, in the present study i.e. 96.4% were from middle socio economic group. There were only 2% and 1.6% subjects in high and low socio-economic status groups, respectively (Table 1).

In the present study, 43% subjects were found to have depression as per PHQ-9 scale (Figure 1).

However, Poongothai et al in their study reported that overall prevalence of depression was 15.1% and was high in females (females 16.3% vs males 13.9%).3

In a study conducted by Deswal et al in urban population of Pune, Maharashtra, depression was found in 3.14% of the population.8

However, using the same scale PHQ-9, Obadeji et al conducted a study on assessment of depression in a Primary Care Setting in Nigeria and reported depression in 47.8% of the subjects.9

In comparison to other studies done in India, depression in present study was found to be very high. The reason can be the rural urban difference in the study populations and the regional variation.

In the present study, increasing trend in depression was seen with increasing age (p=0.000) (Figure 2). Almost 2/3rd of the subjects in the age of 50-59 years and half of the subjects in the age of 40-49 years had depression (Figure 3). Similar observations i.e. increasing age has direct relationship with depression among adult married women were reported by Mumford et al, Husain et al, Ali et al and Nisar et al.10-13

The comparison of depression w.r.t. marital status was found to be statistically significant (p=0.001) (Figure 3).

This was similar to the findings of Obadeji et al and Poongothai et al who reported that divorced, separated or widowed subjects were more likely to be depressed as compared with single or married women.19 The most likely explanation for the association with being widowed or divorced is related to social isolation and stigma.7

The present study shows a highly significant relationship between depression and educational status of subjects (p=0.000). It was observed that depression was decreasing with increasing no. of years of schooling (Figure 4). This is in concordance with the findings of Luni et al, Poongothai et al and Nisar et al who reported decreasing prevalence of depression with increasing level of education.14,15

In the present study, it was observed that depression decreased with increasing Socio-economic class (p=0.001) (Figure 5). Similar findings were also revealed by Madhu Mathur who observed significant association of poor economic status and depression in aged women.6 This may be due to the fact that women belonging to higher economic status can avail better resources and means to maintain life style and participate in more healthy and leisurely activities which influence their well-being. Women in middle and low economic group spend more of their time in household activities.7 Poverty appears to be a vulnerability factor for development of depression in women of low socio-economic class.

CONCLUSION

Depression was found to be on higher side among housewives in rural area of Ludhiana. Housewives should be educated about warning signs and symptoms of depression and motivated to avail primary health care services. Awareness generation about prevention of risk factors of Depression and early reporting should be stressed upon by Special Information, Education and Communication campaigns.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Urvashi, Girdhar S, Chaudhary A. Socio-demographic co-relates of depression among housewives in rural area of district Ludhiana. Int J Community Med Public Health 2019;6:2147-51.