Prevalence and Associated Risk Factors of Depression among Housewives: A Cross Sectional Study from Rural Community of Rajasthan, India

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Abstract:

Introduction : Depression is the leading cause of disease-related disability among women in the world today. 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 selfworth and purpose. **Objective:** To determine the prevalence and associated risk factors of depression among rural housewives aged 18–59 years. **Method:** A community based cross sectional study was carried out among 414 housewives in rural field practice area of Department of Community Medicine, Jhalawar Medical College, Jhalawar, Rajasthan. Participants were selected by simple random sampling technique. A pre designed semi structured proforma was used for collecting information on socio-demographic characteristics, medical history, family problems, personal history and obstetrical and gynecological history. Assessment of depression was done by using self-reported instrument Patient Health Questionnaire-9 (PHQ-9) **Results:** Out of 414 Housewives, 63 (15.2%) were found to have depression. With increasing education level, there was a declining trend toward depression. Significantly higher rates of depression were observed among housewives reporting any debilitating ailments in one or more family members (31.2%), some unusual events occurred in family in past (56.2%), presence of any addiction in family members (22.7%) and debt on family (58.8%). Marriage at early age, having first pregnancy at early age, more than two children, menstrual irregularities and suffering from unable to conceive or infertility were the biological factors significantly associated with depression. **Conclusion:** Prevalence of depression was high among housewives in rural community. Many social and biological factors were contributing towards high rate of depression among housewives.

Keywords: Depression, Education, Housewives, Social.

Introduction:

Health is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.[1] A sound mind in a sound body has been recognized as a social ideal for many centuries. Mental health is not exclusively a matter of relation between persons; it is also a matter of relation of the individual towards the community he lives in, towards the society of which the community is a part and towards the social institutions which for a large part guide his life, determine his way of living, working, leisure, and the way he earns and spends his money, the way he sees happiness, stability and security.[1]

Depression is the leading cause of disease-related disability among women in the world today.[2] It is much more common among women than men, with female/male ratio roughly 2:1.[2] Depression is estimated to affect more than 350 million people globally.[3]

Women do not experience more mental illness than men; they are simply more prone to depression and anxiety, whereas men are more likely to have addictive disorders and personality disorders.[4] Women are approximately twice as likely as men to experience a depressive episode within a lifetime. Gender differences in rates of depression emerge at puberty and decline after menopause, highlighting the complex and reciprocal interactions that occur between biological, psychological and sociocultural factors.[4]

Housewives are the backbone of our Indian society. Very few literatures are available on depression among rural housewives in India. Indian studies showed that middle-aged women reported more psychological distress, more medical problems and lower morale than men.[5] Anxiety and depressive disorders are among the most common psychiatric disorders in the community. 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.[6] Housewives play a major role in family and society. Additional responsibilities due to modernization in rural areas have lead to increased stress and tension among housewives.[2]

Affective disorders are nearly twice more common among women than men. Depression, the prototype mood disorder is a painful emotional experience that involves intense suffering that can drain the meaning of life, excitement and pleasure.[7] With this background, this research was conducted to determine the prevalence and associated risk factors of depression among housewives aged 18–59 years in the rural area of district Jhalawar, Rajasthan.

Method:

A cross sectional study carried out in rural field practice area of Department of Community Medicine, Jhalawar Medical College, Jhalawar, Rajasthan from December 2021 to May 2022. The study population consist housewives aged 18–59 years residing in rural field practice area, Mandawar.

Inclusion criteria: The housewives aged 18-59 years who were willing to participate in the study.

Exclusion criteria: The housewives not willing to participate in study, not providing written consent and not available at the time of data collection were excluded. Housewives already diagnosed with any psychiatric disorders were also excluded.

Sample size: The sample size calculated for the present study was 376 at 5% level of significance and 5% absolute precision using 43% prevalence of depression among housewives in a previous study.[8] Taking a non-response rate of 10%, the sample size came out to be 414. Hence, in present study, 414 housewives, after satisfying inclusion and exclusion criteria were included as study participants.

Study Method: Participants were selected by simple random sampling technique by using random number table method. A pre designed pretested semi structured proforma was used for collecting information on socio demographic characteristics, medical history, family problems, personal history and obstetrical and gynecological history. Housewives were asked about family and social problems. In personal history, participants were asked about financial dependence on husband or other family members, autonomy of housewife in decision-making, having fear of aging effect, having any addiction like smoking, tobacco chewing, alcohol consumption etc. Assessment of depression was done by using self-reported instrument Patient Health Questionnaire-9 (PHQ-9).[9] Subject with a PHQ-9 score of 10 or higher was considered as having at least moderate depression, as per international norms for PHQ-9. The participants identified having at least moderate depression were given information on depression and were advised to visit psychiatry OPD at tertiary care institute.

Data analysis: Collected data were entered into the Microsoft Excel 10. Results are expressed as percentage and described using descriptive and analytic statistics. Chi square test of significance was used for statistical analysis, p value < 0.05 was considered statistical significant at 5% level of significance.

Ethical Considerations: Approval from institutional ethical committee was taken before commencing the study. Nature and purpose of the study was explained to all participants in details before study and informed written consent was taken.

Results:

In present study, total 414 housewives were assessed as study participants. The mean age of the study participants was 36.74±8.54 years. Depression among housewives was assessed using Patient Health Questionnaire-9 (PHQ-9). In present study, 63 (15.2%) study participants were found to have depression.

Table 1 depicts association of some socio-demographic characteristics of study participants with depression. Among age group 40-49 years, 19.6% housewives were found with depression while 20.0% housewives were depressed in age group 50-59 years. It was seen that with increasing age, there was a rising trend toward depression. However, this difference was found to be statistically non-significant (P = 0.17). Out of 46 housewives, who were illiterate, 11 (23.9%) were found with depression. Among 217 housewives having education up to primary level, 40 (18.4%) were depressed. It was seen that with increasing education level, there was a declining trend toward depression and this difference was found to be statistically significant (P = 0.01). Almost equal proportions of housewives were found with depression in both nuclear (14.7%) and joint (15.3%) families (p=0.88). The depression was found among 19.3% housewives in the socio economic status class IV and among 23.7% in socio economic status class V. The association of depression with socio economic status class of participants was found to be statistically significant (P = 0.01).

Table 1 : Association of depression with socio-demographic characteristics of participants

Characteristics	Variables	Depression Present (N=63) n (%)	Depression Absent (N=351) n (%)	Total (N=414) n (%)	p value
Age groups (years)	18-29	11 (9.6)	104 (90.4)	115 (100)	0.17
	30-39	25 (15.4)	137 (84.6)	162 (100)	
	40-49	18 (19.6)	74 (80.4)	92 (100)	
	50-59	9 (20.0)	36 (80.0)	45 (100)	
Education	Illiterate	11 (23.9)	35 (76.1)	46 (100)	0.01
	Primary	40 (18.4)	177 (81.6)	217 (100)	
	Secondary	10 (8.2)	112 (91.8)	122 (100)	
	Graduate & Above	2 (6.9)	27 (93.1)	29 (100)	
Type of family	Joint	52 (15.3)	287 (84.7)	339 (100)	0.01
	Nuclear	11 (14.7)	64 (85.3)	75 (100)	
Socio economic status class*	I	3 (8.1)	34 (91.9)	37 (100)	0.01
	II	5 (9.3)	49 (90.7)	54 (100)	
	III	11 (9.4)	106 (90.6)	117 (100)	
	IV	21 (19.3)	88 (80.7)	109 (100)	
	V	23 (23.7)	74 (76.3)	97 (100)	

* Modified BG Prasad socioeconomic considering AICPI value 125.7 for the month of November 2021[21]

Table 2: Association of depression with family problems of participants

Characteristics	Variables	Depression Present (N=63) n (%)	Depression Absent (N=351) n (%)	Total (N=414) n (%)	p value
Any debilitating ailment in a family member	Yes	10 (31.2)	22 (68.8)	32 (100)	0.02
	No	53 (13.9)	329 (86.1)	382 (100)	
Any unusual events in family in past	Yes	9 (56.2)	7 (43.8)	16 (100)	<0.001
	No	54 (13.6)	344 (86.4)	398 (100)	
Verbal abuse by husband or other family members	Yes	7 (63.6)	4 (36.4)	11 (100)	<0.001
	No	56 (13.9)	347 (86.1)	403 (100)	
Restrictions in movements by family members	Yes	22 (15.2)	123 (84.8)	145 (100)	0.81
	No	41 (15.2)	228 (84.8)	269 (100)	
Presence of any addiction in family members	Yes	29 (22.7)	99 (77.3)	128 (100)	0.004
	No	34 (11.9)	252 (88.1)	286 (100)	
Neighborhood problems	Yes	14 (17.9)	64 (82.1)	78 (100)	0.46
	No	49 (14.6)	287 (85.4)	336 (100)	
Debt on family	Yes	10 (58.8)	7 (41.2)	17 (100)	<0.001
	No	53 (13.4)	344 (86.6)	397 (100)	

Association of family problems of participants with depression is depicted in Table 2. Significantly higher rates of depression (p<0.05) were observed among housewives reporting any debilitating ailments in one or more family members (31.2%), some unusual events occurred in family in past (56.2%), some kind of verbal abuse by husband or other family members (63.6%), presence of any addiction in family members (22.7%) and debt on family (58.8%). Association of depression among participants with movement restrictions and neighborhood problems were found statistically non-significant (p>0.05).

Table 3 depicts association of medical and personal history of participants with depression. Out of 81 housewives reporting history of any chronic illness, 21 (25.9%) were found with depression and this association was statistically significant (p= 0.002). No signification association (p>0.05) was found with other personal factors like financial dependence on husband or other family members, autonomy in decision-making in the household, fear of aging effect and any addiction among study participants.

Association of obstetrical and gynecological history of participants with depression is depicted in Table 4. Significantly higher rates of depression (p<0.05) were found among housewives reporting marriage at early age, having first pregnancy at early age, having more than two children, suffering from

Table 3: Association of depression with medical and personal history of participants

Characteristics	Variables	Depression Present (N=63) n (%)	Depression Absent (N=351) n (%)	Total (N=414) n (%)	p value
History of any chronic illness	Yes	21 (25.9)	60 (74.1)	81 (100)	0.002
	No	42 (12.6)	291 (87.4)	333 (100)	
History of any surgery	Yes	16 (17.4)	76 (82.6)	92 (100)	0.51
	No	47 (14.6)	275 (85.4)	322 (100)	
Financial dependence	Yes	55 (14.3)	329 (85.7)	384 (100)	0.12
	No	8 (26.7)	22 (73.3)	30 (100)	
Autonomy in decision-making	Yes	22 (14.7)	128 (85.3)	150 (100)	0.81
	No	41 (15.5)	223 (84.5)	264 (100)	
Fear of aging effect	Yes	34 (16.1)	177 (83.9)	211 (100)	0.60
	No	29 (14.3)	174 (85.7)	203 (100)	
Any Addiction	Yes	17 (21.0)	64 (79.0)	81 (100)	0.11
	No	46 (13.8)	287 (86.2)	333 (100)	

menstrual irregularities and suffering from unable to conceive or infertility due to various reasons. Comparatively high proportion of depression was observed among housewives reporting menopause (20.7%) and fear of unplanned pregnancy (18.1%), however, difference was found statistically non-significant (p>0.05).

Discussion:

Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community.[10] 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.[11]

In present study, total 414 housewives were assessed as study participants. The mean age of the study participants was 36.74±8.54 years. In our study, 15.2% study participants were found to have depression. In accordance to our study, Poongothai et al[12] in their study reported that prevalence of depression among females was 16.3% in urban Chennai. In contrast to our study, Obadeji et al[13] observed the prevalence of depression to be 47.8% in their study. The prevalence of syndromal depression in the study population was found to be 86.7% in study by Priya Bansal et al.[14] Mathias et al[15] in July 2014 conducted a cross-sectional study in Uttarakhand and reported 7.9% prevalence of depression in female subjects.

In present study, among age group 40-49 years, 19.6% housewives were found with depression while 20.0% housewives were depressed in age group 50-59 years. It was seen that with increasing age, there was a rising trend toward depression.

Table 4: Association of depression with obstetrical and gynecological history of participants

Characteristics	Variables	Depression Present (N=63) n (%)	Depression Absent (N=351) n (%)	Total (N=414) n (%)	p value
Age at the time of marriage (years)	<20	26 (25.0)	78 (75.0)	104 (100)	0.01
	20-23	25 (13.1)	166 (86.9)	191 (100)	
	23-26	9 (10.8)	74 (89.1)	83 (100)	
	>26	3 (8.3)	33 (91.7)	36 (100)	
Age at the time of first pregnancy (years)	<20	20 (26.0)	57 (74.0)	77 (100)	0.02
	20-23	21 (12.3)	150 (87.7)	171 (100)	
	23-26	9 (9.4)	87 (90.6)	96 (100)	
	>26	5 (19.2)	21 (80.8)	26 (100)	
	Not pregnant ever	8 (18.2)	36 (81.8)	44 (100)	
Total no of Children	1 or 2	32 (11.9)	238 (88.1)	270 (100)	0.009
	More than 2	31 (21.5)	113 (78.5)	144 (100)	
Menopausal status	Yes	17 (20.7)	65 (79.3)	82 (100)	0.41
	No	56 (16.9)	276 (83.1)	332 (100)	
Fear of unplanned pregnancy	Yes	13 (18.1)	59 (81.9)	72 (100)	0.46
	No	50 (14.6)	292 (85.4)	342 (100)	
Menstrual irregularity	Yes	14 (24.1)	44 (75.9)	58 (100)	0.04
	No	49 (13.8)	307 (86.2)	356 (100)	
Unable to conceive/Infertility	Yes	7 (58.3)	5 (41.7)	12 (100)	<0.001
	No	56 (13.9)	346 (86.1)	402 (100)	

However, this difference was found to be statistically non-significant (P = 0.17). In accordance to our study, Priya Bansal et al[14] also reported that with increasing age there was an increasing trend toward depression but difference between prevalence of depression and age group was found to be statistically non-significant. Poongothai et al[12] also reported a rising trend in the prevalence of depression among housewives with increase in age.

In present study, it was seen that with increasing education level, there was a declining trend toward depression and this difference was found to be statistically significant (P = 0.01). This indicates that education can be impactful measure in reducing the burden of depression in community. Similar

observation was reported by Mathias et al.[15] In contrast to our study, the relation between higher education status and lesser depression was not found to be statistically significant in study by Divija Pillai et al.[16] Yeoh Si H et al[17] found that there was no significant relation between education and depression.

Almost equal proportions of housewives were found with depression in both nuclear and joint families in present study. There was no statistically significant association between type of family and depression. Similar to our study, no statistically significant relation found between family type and depression in study by Divija Pillai et al. [16]

In present study, higher rates of depression were found in subjects with lower Socio economic status class. The association of depression with low Socio economic status class of participants was found to be statistically significant. Similar to our study, participants belonging to BPL family suffered from depression much more (p = 0.011) compared to APL families in study by Divija Pillai et al.[16]

In present study, depression was present among 31.2% housewives reporting any debilitating ailment in a family member. Depression rates were significantly much higher among housewives reporting any unusual events in family in past (56.2%) and facing verbal abuse by husband or other family members (63.6%). 58.8% housewives were found with depression who reported debt on family. Divija Pillai et al[16] found that 15% of participants who had suffered from death of a close family member or relative were depressed for which they found a statistically significant association. They also reported significant association of depression with mental illness in family and financial burden.

In present study, among housewives reporting history of any chronic illness, 25.9% were found with depression and this association was statistically significant (p = 0.002). Patel et al[18] reported a statistical significant association between chronic physical illness and common mental disorders in their study. In contrast to our study, presence of chronic illness in participants was not found to be statistically associated with depression in study by Divija Pillai et al.[16]

In present study, significantly higher rates of depression (p<0.05) were found among housewives reporting marriage at early age, having first pregnancy at early age, having more than two children, suffering from menstrual irregularities and suffering from unable to conceive or infertility due to various reasons. This finding indicates that biological factors play an important role in mental well-being of housewives.

Pilania M et al[19] conducted a study in Haryana and found that chronic morbidity, elderly, not being consulted for decisions in family, lack of work or hobbies and death of close relative in previous one year had a relation with depression. M Buvneshkumar et al[20] carried out a study in rural Tamil Nadu among elderly and found that overall prevalence of depression was 35.5%. Nuclear family, widowed status, death of close family member or relative, conflicts in family, unemployed or low socioeconomic status, cardiac disease and visual impairment were related with depression.

Conclusion:

In present study, prevalence of depression was found to be 15.2% among housewives in rural community. Lower education level and lower Socio economic status were the socio-demographic factors significantly associated with high prevalence of depression. Among the family problems of the housewives, significantly higher rates of depression were observed among housewives reporting any debilitating ailments in one or more family members, some unusual events occurred in family in past, some kind of verbal abuse by husband or other family members, presence of any addiction in family members and debt on family. Presence of chronic illness was the medical factor significantly contributing to depression. Marriage at the early age, having first pregnancy at early age, more than two children, menstrual irregularities and suffering from unable to conceive or infertility due to various reasons were the biological factors significantly associated with depression among housewives.

Recommendations:

By detecting depression at early levels, providing impactful awareness programmes and making sound efforts to reduce the stigma through information, education and communication can help to reduce the burden and impact of problem and will provide an atmosphere to work efficiently with good quality of life. Emphasis should be given on education of housewives about warning signs of mental disorders. Housewives should be motivated to avail mental health care services. Future studies should be carried out on women with large sample size with different socio-economic backgrounds to explore the individual, socio-cultural and the biological factors responsible for depression and its impact onvarious aspects of life.

Declaration:

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Conflict of Interest: Nil

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