

A cross sectional study to assess the role of socio-economic factors in causing depression among the rural population

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Abstract

Context: Depression is considered to be the significant contributor to the global burden of disease and affects people in all communities across the world. A disorder of major public health importance which leads to decreased productivity and high suicide rates. Therefore, this study was done to know the factors contributing to depression especially among rural population.

Aim: To assess the socio-economic factors and their role in causing depression among rural population.

Materials and Methods: A cross sectional study was conducted among the rural population residing in the villages of Nelamangala taluk. Sample size was 570. Data was collected using pre-tested, semi-structured and self designed questionnaire. Level of depression was assessed using Centre for Epidemiological studies- Depression scale. Data analysis was done using descriptive statistics and appropriate statistical tests.

Results: About 57.9% of the study participants were in the age group of 41-60 years. Majority were males. Almost 46.5% of the study subjects were illiterates. Most of them (47.9%) were from lower middle class family.

Conclusion: In this study, we found that various factors such as advancing age, illiteracy, low socio-economic status and marital status, presence of various co-morbid conditions and substance use had a significant association in causing depression.

Keywords: Socio-economic factors, Depression, Illiteracy, Co-morbid conditions.

Introduction

Depression is a common disorder which continues to remain under detected in most of the people. According to world health organization, depression is a significant contributor to the global burden of disease and affects people in all communities across the world.¹ It is a mental disorder characterized by sadness, loss of interest or pleasure, feelings of guilt or low self worth, disturbed sleep or appetite, feelings of tiredness and poor concentration.

Depression is a disorder of major public health importance due to its high prevalence, with a high magnitude of suffering and dysfunction leading to huge economic burden. As per the recent estimates of WHO, more than 300 million people in the world are living with depression which at its worst can lead to suicide. Almost 800000 die due to suicide every year.² At the individual level, depression affects the

mental and emotional wellbeing, lowers the overall quality of life and may increase the risk of other medical illnesses. At a societal level, it leads to loss of productivity and economic burden.³

Various factors such as inadequate knowledge about depression and its treatment, people with depression presenting to primary care practitioners with somatic symptoms, stigma associated with mental health disorders, lack of trained mental health care professionals especially in peripheral areas, lack of involvement of community members such as village head and members of gram panchayat in creating awareness regarding mental health disorders have resulted in high prevalence of depression in the community especially in rural areas.⁴

India contributes for high burden of depression in the world. It accounted for 15% of global DALYs attributable to mental, neurological and substance use

disorders (31 million 11 DALYs) with depression, accounting for 37% (11.5 million DALYs) in 2013.⁵ The National Mental Health Survey (NMHS) estimated that about 150 million Indians need care for mental disorders, and about 10% suffer from common mental disorders (CMD) such as depression, anxiety, emotional stress and suicide risk, as well as alcohol and drug use.⁶ It can affect people from all backgrounds and across the life time from early childhood to end stages of life. Therefore this study was conducted to know the factors leading to depression which helps to create awareness among the people and to change their attitude towards mental illness.

Objectives

To know the various socio-economic factors and their association in causing depression in rural population.

Materials and Methods

A cross sectional study was conducted among the residents of the randomly selected villages of Nelamangala taluk. Study duration was March to May 2017. Sample size was calculated based on the study done by Grover SD et al which showed the overall prevalence of depression among general population to be 15.1%.⁷ Sample size was estimated to be 570 with 20% allowable error. Ethical clearance was obtained by the institution. A total of 12 villages were selected randomly by lottery method. Approximately 50 individuals were selected from each village for the study by simple random sampling method till the desired sample is obtained. Data collection was done by interview method after obtaining the consent of the study participants. A pretested, semi structured, pre

designed questionnaire was used to collect the demographic details. CES-D scale was used to assess depression in local language (Kannada) which is a 20-item measure assessing symptoms of depression with items phrased as self-statements.⁸ A score of 16 or higher has been used extensively as the cut-off point for high depressive symptoms on this scale. Data was entered in excel sheet and analysis was done using SPSS software.

Statistics

Results were presented in terms of frequencies and percentages. Chi square was applied to find the association between various factors and depression. P value < 0.05 is considered significant. Charts, tables and graphs are added wherever necessary.

Results

Study was conducted among 570 study participants. The mean age was 52.38 ± 11.75 . About 46.5% were not literates. Regarding the marital status, 4.40% were widows and 0.50% were widowers. Majority in the study, 72.30% were from nuclear family and 47.9% belong to lower middle class families according to modified B G Prasad socio economic scale (2018).¹⁸ Usage of tobacco and its products in various forms was found among 47.70% of the study subjects. Around 28.2% (161) subjects in the study were suffering from non-communicable diseases such as diabetes and hypertension. Significant association was found between depression and various factors such as age, gender, marital status, socio economic status, literacy, personal habits and co-morbid conditions.

Table 1: Distribution of study subjects according to Age and Marital status

Age in years	Number (%)	Marital Status	Number (%)
21-40	109 (19.1)	Married	541 (94.9)
41-60	330 (57.9)	widow	25 (4.4)
≥61	131 (23)	widower	3 (0.5)
Total	570 (100)	Un married	1 (0.2)
		Total	570 (100)

Table 2: Distribution of study subjects according to literacy and socioeconomic status

Literacy status	Number (%)	Socioeconomic class	Number (%)
Not literate	265(46.5)	Upper Class	2(0.4)
Primary	74(13)	Upper Middle	16(2.8)
Middle School	195(34.2)	Middle	187(32.8)
High School	29(5.1)	Lower Middle	273(47.9)
Intermediate	7(1.2)	Lower Class	92(16.1)
Total	570(100)	Total	570(100)

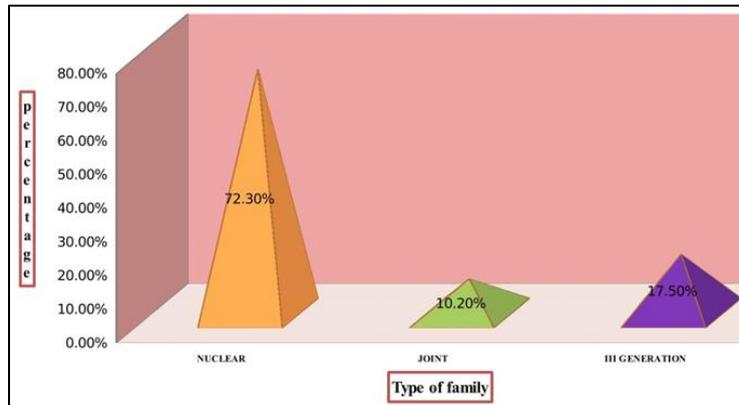


Fig. 1: Distribution of study subjects according to type of family

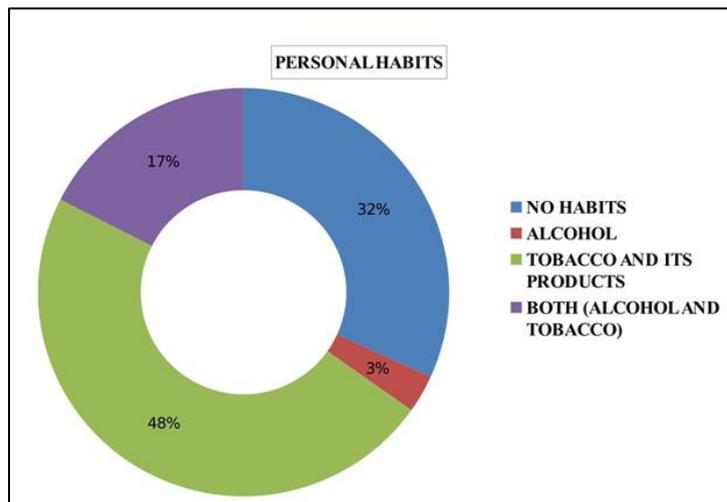


Fig. 2: Distribution of study subjects according to habits

Table 3: Association between socioeconomic factors and depression

Socioeconomic factors	Variables	No Depression (%)	Depression (%)	Total	Chi-square value (p-value)*[df] [#]
Age in years	21-40	78(71.6)	31(28.4)	109	9.772 (0.008)[2]
	41-60	227(68.8)	103(31.2)	330	
	≥61	72(55)	59(45)	131	
Gender	Male	372(71.1)	151(28.9)	523	70.460 (<0.001)[1]
	Female	5(10.6)	42(89.4)	47	

Marital status	Married	373(68.9)	168(31.1)	541	35.106 (<0.001)[3]
	Unmarried	0	1(100)	1	
	widower	0	3(100)	3	
	widow	4(16)	21(84)	25	
Socio-economic status	Upper Class	2(100)	0	2	42.869 (<0.001)[4]
	Upper Middle	13(81.3)	3(18.8)	16	
	Middle	154(82.4)	33(17.6)	187	
	Lower Middle	164(60.1)	109(39.9)	273	
	Lower Class	44(47.8)	48(52.2)	92	
Socioeconomic factors	Variables	No Depression (%)	Depression (%)	Total	Chi-square value (p-value)*[df][#]
Literacy Status	Not literate	160(60.4)	105(39.6)	265	10.062 (0.039)[4]
	Primary	52(70.3)	22(29.7)	74	
	Middle School	137(70.3)	58(29.7)	195	
	High School	21(72.4)	8(27.6)	29	
	Intermediate	7(100)	0(0.0)	7	
Habits	No Habits	131(72.4)	50(27.6)	181	8.364 (0.039)[3]
	Alcohol	11(64.7)	6(35.3)	17	
	Tobacco and products	164(60.3)	108(39.7)	272	
	Alcohol and Tobacco	71(71.0)	29(29.0)	100	
Marital disharmony	Yes	1(20.0)	4(80.0)	5	0.047[1]
	No	376(66.5)	189(33.5)	565	
Morbidity status	No Disease	257(70.6)	107(29.4)	364	9.105 (0.028)*[3]
	Allergic Disorders	25(59.5)	17(40.5)	42	
	Non Communicable Diseases	93(57.8)	68(42.2)	161	
	Other Diseases	2(67.7)	1 (33.3)	3	

*Chi-square test: P-value <0.05 is significant, # degree of freedom

Discussion

In our study, we found that a significant association was found between age and depression. As the age advances the incidence of depression increases. Similar finding was found in a study done by Shidhaye R. et al in vidharbha, India where elderly those who are above 55 years of age had seven times higher odds of depression compared to young adults.⁹ In the other study by Sinha S. P. et al among rural population in India found that prevalence of depression was high in age group of 60-69 years.¹⁰ In our study, it was found that marital status had a significant association in causing depression. The prevalence was more among widow, widower and unmarried. Study by Shidhaye R

et al also reported that prevalence of depression was high among widow, separated and divorced.⁷ But in a study done by Fang M et al in rural china found that percentage of married participants who experience depression was significantly higher than that of unmarried participants.¹¹ In this study the association between gender and depression was found to be significant. Female participants were found to be more depressed. Study done by Buvneshkumar M et al also reported that females had 1.81 times more risk than males of being depressed.¹²

In the present study, Illiteracy and low socioeconomic status were found to have significant

association with depression. In a study done by Fakir M et al in a rural district of Bangladesh also stated that psychological distress was high among those who are less educated and poor.¹³

Study done by Safwi SR et al on depression in rural India also reported high prevalence of depression among subjects who are illiterates and have low socioeconomic status.¹⁴ A similar finding was obtained in a study done by Ahmad Bhat G et al which showed high prevalence of depression among illiterates and people from low socioeconomic status.¹⁷

In our study, participants who were dependent on alcohol and tobacco and had co-morbid conditions were found to be more depressed. Study done by Raut A et al stated that those individuals who consumed both tobacco and alcohol were found to have significantly greater odds of developing depression.¹⁵ Another study done by Pradhan SN et al also showed 78.3% of the patients with substance use disorder was suffering from depression.¹⁶

Conclusion

A significant association was found between depression and various socio economic factors such as age, literacy, socio economic status, marital disharmony, substance usage etc. Hence measures such as improving literacy status, promoting healthy aging, opportunities for vocational rehabilitation, pre and post marital counselling, imparting health education to the masses regarding the ill effects of tobacco and alcohol, encouraging healthy life style, creating awareness among the rural folks about mental illness and alleviating stigma associated with it, provision for mental health care facilities are required for the rural population to overcome the psychiatric morbidities and improve their quality of life.

Source of Funding

None.

Conflict of Interest

None.

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