

Original Research Article

A cross sectional study on the prevalence and factors associated with geriatric depression in an urban slum of Davangere city

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ABSTRACT

Background: Various community-based studies have revealed that the prevalence of depression in geriatric population in India varies between 13% and 25%. In spite of the magnitude of this problem there are very few studies from India investigating geriatric depression and its associated risk factors. This study aims to establish the prevalence, socio- demographic correlates and factors associated with geriatric depression in an urban slum of Davangere city. Objective of the study was to estimate the prevalence of depression and its association with socio-demographic factors among the geriatric population in an urban slum of Davangere city.

Methods: A community based cross sectional study was conducted from June to November 2016, among the geriatric people residing in an urban slum (Mustafanagar) of Davangere city. A house to house survey was done and all the geriatric people willing to participate in the study were selected and assessed for depression using the Geriatric Depression Scale.

Results: In this study the prevalence of depression was found to be 39% among the elderly, of which 33% had mild depression and 6% had severe depression.

Conclusions: In this study it was found that the prevalence of depression was higher among those who were widowed and those who were living alone. It was also more among the people belonging to Class V Socio-economic status (Modified B.G Prasad Classification) and people suffering from a chronic illness.

Keywords: Geriatric, Depression, Urban, Slum, Chronic

INTRODUCTION

Aging is a natural process and it has been described by Seneca as an incurable disease, but more recently, sir James Sterling Ross commented: “*You do not heal old age, you protect it; you promote it; you extend it*”.¹ In the developing countries the number of elderly is continually increasing due to the evolving age structure. In the year 2002 the number of elderly people in the world was estimated to be 605 million which is expected to have risen to more than 1.2 billion by the year 2015. Hence it is evident that both the share and size of elderly population is increasing over time.² According to census

2011 the individuals aged 60 years and above account for 8% of the total population and is projected to rise to 12.4% by the year 2026.³

The health status of any individual is important as it has a significant impact on the quality of life. In old age there is a high prevalence of mental disorders and the most predominant among these is depression. It is an affective illness which is characterized by depressive mood, impaired cognition and behavior. “Geriatric depression” is a common clinical condition which is characterized by a prolonged state of mental depression in individuals over the age of 60 years.⁴ In various community-based mental

health studies in India it has been found that the prevalence of depressive disorders in the geriatric population varies between 13% and 25%.⁵ According to WHO, the factors which increase depression risk in the elderly include genetic susceptibility, chronic disease and disability, pain, limitations in performing activities of daily living (ADL), personality traits (dependent, anxious or avoidant), adverse life events and lack of adequate social support. There are many studies which have also found a relationship between depression and various socioeconomic variables like advanced age, low level of education and poverty.⁶ As depression is a chronic condition and is difficult to diagnose it leads to an increase in morbidity, mortality and also health care costs.⁷ Depression has been found to be the most common disorder among the elderly in India and has a significant impact on their quality of life. In spite of this depression in the elderly is not yet perceived as an important health problem in our country.⁸ Hence it is quite evident from the studies done in India that depression is a very common problem among the geriatric population and a major cause of concern. Since there is a dearth of studies on Geriatric depression in our country we have made an effort to find out the prevalence of depression and its association with socio- demographic factors among the geriatric population in Our Urban field Practice area and address the issue accordingly.

METHODS

A community based cross sectional study was carried out for a period of six months from June to November 2016, for which ethical clearance was taken from the institutional ethics committee. The sample size was estimated using the formula $n=4pq/L^2$. The prevalence of depression, "p" among elderly persons was taken as 36%. "L", which is the permissible error in the estimate of p was set at 15%. Using the above mentioned statistical formula which considers 95% confidence limits and a non-response rate of 10%, the sample size was estimated to be 350.

A house to house survey was done in the Mustafanagar slum and the desired sample size was obtained using systematic random sampling. After taking informed consent all the geriatric people willing to participate in the study were selected and assessed for depression using the geriatric depression scale. Those with severe cognitive impairment, deafness or severe physical morbidity were excluded from the study.

A valid semi-structured questionnaire was administered which consisted of two parts. One with the general information which includes socio- demographic characteristics. The second part included the Geriatric Depression scale (GDS).⁹ GDS Screens for seven characteristics of depression in elderly, which are somatic concern, lower affect, cognitive impairment, feelings of discrimination, impaired motivation, lack of future orientation and lack of self-esteem. According to this scale, scores between - 0-9 will be considered as normal, 10-19 is mildly depressive and 20-30 Severely depressive.

Statistical analysis

The data was analysed by descriptive statistics. Chi-square test and Fisher's exact test was used to find out the association between two attributes and $p<0.05$ was considered to be statistically significant

RESULTS

350 subjects were taken up for the present study, out of which majority (64%) was in the age group of 60-69 years and 53.4% subjects were males. The distribution of the study subjects according to socio-demographic characteristics showed that 74% were married, 54.6% were illiterate and 59.4% belonged to Class IV Socio Economic Status (Modified BG Prasad classification) (Table 1).

Table 1: Distribution of study subjects according to socio demographic profile (n=350).

Characteristic	Frequency	Percentage (%)
Age (years)	60-69	64
	70-79	29.4
	80 Years and above	6.6
Sex	Males	53.4
	Females	46.6
Marital status	Married	74
	Widowed	26
Living arrangement	Living with spouse	7.4
	Living with spouse & children	62.6
	Living with children only	28
	Living alone	2
Education	Illiterate	54.6
	Primary & secondary school	42
	Graduate	3.4

Characteristic	Frequency	Percentage (%)
Socio economic status	Class I	0
	Class II	35
	Class III	49
	Class IV	208
	Class V	58
Employment status	Working	159
	Not working	191
Disease status	Suffering from chronic illness	124
	No chronic illness	226

Table 2: Association between socio demographic characteristics and depression.

Characteristic	Normal (%)	Depression present (%)	P value
Age (years)	60-69 (224)	142 (63.4)	0.206
	70-79 (103)	56 (54.4)	
	80 Years and above (23)	16 (69.6)	
Sex	Males (187)	116 (62)	0.940
	Females (163)	100 (61.3)	
Marital status	Married (259)	177 (68.3)	<0.0001
	Widowed (91)	37 (40.7)	
Living arrangement	Living with spouse (26)	14 (53.8)	<0.0001
	Living with spouse (219) & children	156 (71.2)	
	Living with children only (98)	44 (44.9)	
	Living alone (7)	2 (28.6)	
Education	Illiterate (191)	115 (60.2)	0.827
	Primary & secondary school (147)	93 (63.3)	
	Graduate (12)	7 (58.3)	
Socio Economic status	Class II (35)	30 (85.7)	<0.0001
	Class III (49)	40 (81.6)	
	Class IV (208)	124 (59.6)	
	Class V (58)	21 (36.2)	
Employment Status	Working (159)	100 (62.9)	0.539
	Not working (191)	114 (59.7)	
Disease status	Suffering from chronic illness (124)	37 (29.8)	<0.0001
	No chronic illness (226)	177 (78.3)	

The distribution of the study subjects according to the GDS 30 scores showed that about 33% of the subjects had GDS scores between 10-19, showing the presence of mild depression and about 6% had GDS scores > 20, showing the presence of severe depression (Figure 1).

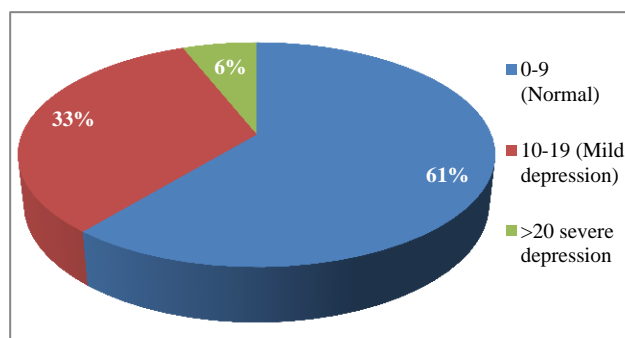


Figure 1: Distribution of study subjects according to GDS 30 scores.

The present study found that depression was more common in those who were widowed (59.3%), compared to those who were married (31.7%). Among those individuals who lived alone (71.4%) suffered from depression. Depression was also more common in individuals who belonged to class V Socio-Economic status (63.8%) and those who were suffering from some chronic illness (70.2%). All the associations were found to be statistically significant ($p < 0.05$).

DISCUSSION

In our study it was found that the prevalence of depression was more in the age group of 70-79 years (45.5%), which was similar to the findings of a study done by Kakrani et al.⁵ The probable reason being that with advancing age the physical morbidities increase which may in turn lead to increased psychological stress and emotional dependence. Our study also shows that depression was more common among those who were

widowed (59%) in comparison to those who were married, this result was similar to the study conducted by Sinha et al.⁶ It could be explained by the fact that emotional support from the partner is essential as the age advances and hence the death of the spouse acts as a triggering factor for increase in the levels of stress with advancing age. It was also found that there was a significant association between depression and living arrangement, depression was found to be more common among the people who lived alone (66.7%), which was similar to a study done by Swarnalatha et al.¹⁰ This could be due to the fact that people who lived alone completely lacked emotional support and bonding from the family and hence were more vulnerable and prone to develop depression. A significant association was also noted between Socio-economic status and depression, it was found that depression was more common in the people belonging to lower socio-economic status (Class IV and V), (40.4% and 64%) this was similar to a study done by Nair et al.¹¹ This could be attributed to the fact that people who belonged to lower SES did not have access to good quality health services due to lack of money and poverty and hence led to an increase in depression. Our study also found that depression was more common in those who were suffering from a chronic illness (69.8%), it was similar to a study by Pracheth et al.⁷

CONCLUSION

In this study the prevalence of Depression was found to be 39% among the elderly, of which 33% had mild depression and 6% had severe depression. The present study shows that the prevalence of depression has a significant association with marital status, living arrangement, Socio-economic status and presence of a chronic illness. In this study it was found that the prevalence of depression was higher among those who were widowed and those who were living alone. It was also more among the people belonging to Class V Socio-economic status (Modified B.G Prasad Classification) and people suffering from a chronic illness.

Recommendations

As our study shows prevalence of depression to be about 39% among the geriatric population, there is need to set up geriatric clinics which can not only treat physical ailments but also focus on the treatment of Mental-health problems among the geriatric population. Counselling services should be provided to those who are vulnerable for developing depression. It is also important to reduce the stigma related to mental health problems among elderly by public awareness.

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