



Original Research Article

Prevalence of Geriatric Depression in the Rural Field Practice Area of A Medical College, Karnataka

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ABSTRACT

Background: Depression is projected to reach second place of the DALYs (disability adjusted life years) ranking worldwide by the year 2020 and first place by 2030. According to a WHO report, patients over 55 years with depression have a four times higher death rate than those without depression, mostly due to heart disease or stroke.

Methodology: A cross-sectional study was carried out among elderly residing in rural field practice area of AIMS. Questionnaire based interviews were conducted among the elderly people. Depression was assessed using the 15-item Geriatric Depression Scale.

Results: Majority of the study subjects belong to the age group 60 to 70 years. The prevalence of depression was found to be 54.3% (CI: 48.72-59.88).

Conclusion: The prevalence of depression in the elderly population in our study was high. The burden of depression among the geriatric population of developing countries needs to be addressed as a priority, before it becomes a public health menace.

Key words: Elderly, Rural, Depression

INTRODUCTION

Today, depression is an important public health challenge in developing countries. The World Health Organization (WHO) described depression as a major, worldwide cause of disability. Mental and behavioral disorders are estimated to account for 12% of the global burden of disease which affects approximately 450 million people. ^[1]

Currently, India is entering the grey revolution. The proportion of those, who were aged 60 years and above, were

estimated to be 7.7% for the year 2000, and this proportion are expected to reach 12.6% in 2025. The Indian aged population is currently the second largest in the world. ^[2]

The elderly are vulnerable group as they often have multiple co-existing medical and psychological problems. Cardiovascular diseases, respiratory disorders, hearing and visual impairments, depression, and infections such as tuberculosis are common problems in elderly populations. ⁽³⁾ In India, the principal mental disorders of later life are mood disorders (predominantly

depression) and dementia. [4] The prevalence of depression among the geriatric population in India varies between 4.7 and 25 per cent. [5,6] There is a dearth of community studies from India in estimating geriatric depression and its associated risk factors. [7] So, this study was conducted to know the prevalence of geriatric depression in rural India.

MATERIALS AND METHODS

A community based Cross sectional study was conducted among people aged 60years and above, residing in 8 villages of Bellur PHC, Mandya district, Karnataka during October 1st to Dec 1st 2013. All subjects, aged ≥ 60 years, not on antidepressants, willing to participate in the study and were permanent residents of villages were included in the study. Subjects who were not available during the study period, those who were severely ill during the interview process and those who could not hear and speak were excluded from the study. The sample size was calculated based on the formula $(n) = 4pq/l = 4 \times 23 \times 77 / 21.16$ where 23% was the prevalence of depression in pilot study. Setting the Confidence level and precision as 95% and 20% respectively the sample size was estimated to be 335. Eight villages were selected based on simple random sampling and with the response rate of 95%, 311 elderly were interviewed at their residential settings. A structured questionnaire was used to collect the Socio-demographic details and Geriatric Depression Scale (GDS-SF 15) [8] was used for measuring depression in the elderly. Informed consent was obtained from the participants before collecting data. Data was analyzed using SPSS 16.0 version and descriptive statistical tests were used. Those who had GDS Score of less than 5 were considered normal and more than 5 as depressed.

RESULTS

Three hundred and eleven participants from 8 villages of Bellur PHC were interviewed in their residence. 221 (71.1 %) study subjects were males, 90 (28.9%) were females. The majority (72.3%) of study subjects belong to the age group of 60-70years. 80.8% of the study participants were Hindu, 15.4% Muslim, 3.2% Jain, 0.6% Christian. 66.6% of the study subjects were literate and 88.8% were married, 1.6% single, 9.6% widow/widower/divorcee [Table 1].

Table 1: Socio-demographic characteristics of study population

Socio demographic characteristics	Frequency(n=311)	Percentage
Age group(in years)		
60-70	225	72.3
71-80	71	22.8
81-90	15	4.9
Gender		
Male	221	71.1
Female	90	28.9
Religion		
Hindu	251	80.8
Muslim	48	15.4
Jain	10	3.2
Christian	2	0.6
Literacy status	207	66.6
Literate	104	33.4
Illiterate		
Marital status		
Married	276	88.8
Single	5	1.6
Widow/widower /divorcee	30	9.6

The prevalence of depression in our study was 54.3% (95% CI: 48.72-59.88).

Table 2 shows that out of 225 study subjects who belonged to the age group 60-70years, 115 (51.2%) were depressed. 42(59%) study subjects out of 71 were depressed in the 71-80 age groups. In the age group 81-90years, 11(73.3%) out of 15 were depressed, 4(26.6%) were normal.

Table 2: Depression according to age group of study participants

Age group (in years)	Normal	Depressed	total
60-70	110(48.8)	115(51.2)	225
71-80	29(40.8)	42(59)	71
81-90	4(26.6)	11(73.3)	15
TOTAL	142(55.7)	169(54.3)	311

Figures in parenthesis indicate percentage

Table 3 depicts prevalence of depression among men and women. Prevalence of depression was more among females (59%) when compared to males (51%).

Table 3: Depression according to gender of study participants

GENDER	NORMAL	DEPRESSED	TOTAL
MALE	80(46.20)	141(63.80)	221
FEMALE	38(42.33)	52(57.77)	90
TOTAL	142(55.7)	169(54.3)	311

Figures in parenthesis indicate percentage

DISCUSSION

The prevalence of depression was 54.3% among the elderly in our study population. The community-based mental health studies conducted in various parts of India in the past revealed that the prevalence of geriatric depression in India varied between 13 and 55 per cent. ^[9-11] The prevalence of depression was 39.04% among the elderly in a study conducted by Vishal J et al. ^[12] Studies have revealed that the prevalence rates for depression in community samples of elderly in India vary from 4.7 to 25%. ^[5,6]

The World Health Organization estimated that overall prevalence rate of depressive disorders among the elderly varies between 10% and 20%. ^[13] In a study conducted by Nair *et al.* in Dharwad, the prevalence was 32.4%. ^[14] The prevalence of depression in Caucasian elderly populations in the West varies from 1% to 42%. ^[15]

The prevalence computed in our study is higher than this spectrum. This variation reflects methodological differences in study designs and instruments or true differences in prevalence.

CONCLUSION

The prevalence of depression in the elderly population in our study was high and a cause of concern. Aggressive education and awareness campaigns to fight

depression at individual, community and the national level and support to patients should be an essential component of future strategies. In order to improve the geriatric care, social security measures which improve the economic status of people in this age group should be focussed.

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REFERENCE

1. Pilia M, Bairwa M, Kumar N, Khanna P, Khurana H. Elderly depression in India: An emerging public health challenge. *AMJ* 2013; 6(3):107-111.
2. Barua A, Kar N. Screening for depression in elderly Indian population. *Indian J Psychiatry* 2010; 52:150-3.
3. Raja S, Wood SK, De Menil V, Mannarath SC. Mapping mental health finances in Ghana, Uganda, Sri Lanka, India and Lao PDR. *Int J Ment Health Syst.* 2010; 27; 4:11.
4. The World Health Organization. *World Health Report: Mental Health: New understanding New Hope.* Geneva: The institute; 2001
5. Barua A, Ghosh MK, Kar N, Basilio MA. Prevalence of depressive disorders in the elderly. *Ann Saudi Med.* 2011; 31(6):620-4.
6. Kritiotis L. Depressive disorders and chronic comorbid disease states: A Pharmaco-epidemiological Evaluation. *Magister Scientiae.* Nelson Mandela Metropolitan University; February 2007. Available from: <http://dspace.nmmu.ac.za:8080/jspui/bitstream/10948/653/1/LIA%20KRITIOTIS.pdf.1>
7. Tiwari SC. Geriatric psychiatric morbidity in rural northern India: Implications for the future. *International Psychogeriatrics.* 2000; 12(1): 35-48.

8. Arthur, A., Jagger, C., Lindesay, J., Graham, C. and Clarke, M. Using an annual over-75 health check to screen for depression: validation of the short Geriatric Depression Scale (GDS15) within general practice. *International J Geriatric Psychiatry*.1999; 14:431-9.
9. Tiple P, Sharma SN, Srivastava AS. Psychiatric morbidity in geriatric people. *Indian J Psychiatry*.2006; 48(2): 88-94.
10. Rajkumar AP, Thangadurai P, Senthilkumar P, Gayathri K, Prince M, Jacob KS. Nature, prevalence and factors associated with depression among the elderly in a rural south Indian community. *Int Psychogeriatr*. 2009;21 (2):372-8.
11. Sureshkumar R, Bharath S, Jain S, Prakash O, Purushottam M, Thennarasu K et al. ApoE4 and late onset depression in Indian population. *Journal of Affective Disorders* 2012;136(3):244-8.
12. Vishal J, Bansal RK, Swati P, Bimal T. A study of depression among aged in Surat city. *Natl J Community Med* 2010;1:47-9.
13. Arumugam B, Nagalingam S, Nivetha R. Geriatric depression among rural and urban slum community in Chennai: A cross sectional study. *J Evol Med Dent Sci* 2013;3:795-801.
14. Nair SS, Hiremath SG, Ramesh, Pooja, Nair SS. Depression among geriatrics: Prevalence and associated factors. *Int J Curr Res Rev* 2013; 5:110-2.
15. Djernes JK. Prevalence and predictors of depression in populations of elderly: a review. *Acta Psychiatr Scand* 2006; 113(5): 372-87.

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