



## PREVALENCE RATE OF DEPRESSION AMONG ELDERLY POPULATION IN CENTRAL INDIA

### Dental Science

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### ABSTRACT

The adult population is booming at an alarming rate leading to the most difficult challenges faced by both developing and developed nations. The rapid changes in social and cultural values have marked influence on the psychological well being of the elderly. Depression among the elderly remains unrecognized or inadequately treated condition. The goal of this study was to determine the magnitude of depression in elderly people living in central India.

**MATERIALS AND METHOD-** 200 elderly individuals of 60 years of age or more reporting to the institute who gave consent for the study were screened. While those individuals who refused to provide consent were excluded. Demographic details were recorded, and level of depression was assessed using Geriatric depression scale (Sheikh & Yesavage, 1986.)

**RESULT:** The data was analysed and the results were recorded. The Chi-square test was used for categorical variables. In this study, severe depression was found in 30% elderly while 50% were mildly depressed. Also, Women were more depressed as compared to men.

**CONCLUSION-** The high prevalence of depression among elderly especially females emphasize increased need of family and community support and availability of better health care services. The small sample size of this study is limitation, so large-scale studies are needed for a better picture of mental health in rural older adults in India.

### KEYWORDS

Depression, Geriatric depression scale, elderly, depressive disorders.

### INTRODUCTION

At the National level, percentage of adult population who are 60 plus is 8%. Composition of 60+ aged female population is higher in all the bigger States except Assam, Bihar, Himachal Pradesh, Jammu & Kashmir and Jharkhand. Older adults of age 60 or more constitutes 8.1 % of the total rural population and this variation ranges from 5.4% - 12.6 % in Delhi and Kerala. In urban area, proportion of aged population in most of the States is lower than the corresponding rural share except for Assam, Bihar, Delhi, Jammu & Kashmir, Jharkhand, Rajasthan, and West Bengal. This is the Pictorial presentation of percentage of old age population by residence for bigger States.<sup>1</sup>

The term 'depression' is used variously to describe a dysphoric mood state, a syndrome comprised of a cluster of symptoms, or a clinical disorder. Transient dissatisfaction is universal and generally is not the focus of clinical attention. Depressive symptoms (e.g. sadness, fatigue and disturbed sleep) can occur in the context of a variety of medical conditions (e.g. stroke, congestive heart failure) and may not warrant a separate psychiatric diagnosis. One of the review has focused on the use of exercise as a treatment for the clinical disorder of depression.<sup>2</sup>

It has been estimated that the 12-month prevalence of depressive disorders is approximately 2% for men and 5% for women among adults aged over 65 years, living in the community in New Zealand.<sup>3</sup> Older people in residential care are at significantly higher risk of depression. One study in low-dependency care facilities in Australia reported a prevalence of depression of 18%, with only half of these residents receiving any intervention.<sup>4</sup>

This study aims at determining the level of depression among the elderly population in the central India.

**MATERIALS AND METHOD-** this cross-sectional study was carried out among 200 elderly individuals. Elderly, of 60 years of age or more reporting to the institute were included.

**INCLUSION CRITERIA-** those individuals aged 60 or above who gave consent for the study were screened

**EXCLUSION CRITERIA-** those individuals who refused to provide consent or those with communication problem were excluded from the study.

**SAMPLE COLLECTION-** the questionnaire comprises of two sets. The first set includes the demographic details such as age, sex, marital status, education, occupation, income and residence. While the second set includes the Geriatric depression scale (GDS).

The Geriatric depression scale is a 15 item assessment to identify the level of depression in the elderly. The scale was developed by Sheikh & Yesavage, 1986.<sup>5</sup>

### DATAANALYSIS-

The data was analysed using SPSS software and the results were recorded. Tables and figures were used for comprehensive viewing of the results. The Chi-square test was used for categorical variables. P value of <0.05 was taken as the criteria of significance for all purposes. The GDS questions are answered 'yes' or 'no'. The ease of use of this scale enables an individual for comprehensive geriatric assessment. score one point for each one selected. A score of 0 to 5 is normal. A score greater than 5 suggests depression.

### OBSERVATION

A total of 200 subjects were interviewed and using GDS, 65 subjects were found to be having score 0-5 that means normal (Group A), 72 were mildly depressed with GDS score 6-10 (Group B) and rest 62 were severely depressed having a score >10 (Group C). So prevalence of severe depression was found to be 35% [Table 2]. Nandi et al. in their pioneering epidemiological survey found that 21.4% of subjects aged 60 and above in the community suffered from depression.<sup>6</sup>

**Table 1- Geriatric depression scale**

No.	Question	Answer	Score
1.	Are you basically satisfied with your life?	Yes/no	
2.	Have you dropped many of your activities and interests?	Yes/no	
3.	Do you feel your life is empty?	Yes/no	
4.	Do you often get bored?	Yes/ no	
5.	Are you in good spirits most of the time?	Yes/ no	
6.	Are you afraid that something bad is going to happen to you?	Yes/no	
7.	Do you feel happy most of the time?	Yes/no	

8.	Do you often feel helpless?	Yes/no	
9.	Do you prefer to stay at home, rather than going out and doing new things?	Yes/no	
10.	Do you feel you have more problems with memory than most people?	Yes/no	
11.	Do you think it is wonderful to be alive?	Yes/no	
12.	Do you feel pretty worthless the way you are now?	Yes/no	
13.	Do you feel full of energy?	Yes/no	
14.	Do you feel that your situation is hopeless?	Yes/no	
15.	Do you think that most people are better off than you are?	Yes/no	
	TOTAL:		

Distribution of GDS-15 scores (n=200)

Table 3 reveals various socioeconomic and demographic details of subjects. Among 200 subjects 17.5 % were between 60–64 years of age, 40 % between 65–69 years and 42.5 % were 70 years and above. 50% were males and 50% were females. 52.3% of subjects belonged to rural areas and 47.7% resided in urban set up. Forty four percent of subjects were illiterate and 56% were educated. Among 200 subjects 86% were not doing any job so they were dependent on other family members for monetary needs. 76% percent were suffering from various diseases like diabetes, hypertension, chronic renal failure etc., and 24% were otherwise normal.

TABLE 4 reveals statistical analysis of depression among all three study groups.

**Discussion**

Depression is not a normal response in aging process. Depression in the later life may be due to the changes like- retirement, death of loved ones, increased isolation, medical problems. It prevents one from enjoying life like they used to previously have. Depression affects one's sleep, appetite and physical health. However, depression is an inevitable part of aging, one can avoid its symptoms.

In this study, severe depressive symptoms in were found to be 42.5% elderly while 40% were mildly depressed. Depression is often not detected properly in elderly population. Prevalence of depressive symptoms varied from 13.5% to 36.8% in community dwelling older adults<sup>7,8,9</sup> Some other studies have revealed that the prevalence rates for depression in community samples of elderly in India vary from 6% to 50%.<sup>10,11</sup> The prevalence of depression in Caucasian elderly populations in the West vary from 1% to 42%.<sup>12</sup>

The health issues and/or loss of spouse may be the possible risk factor for depression. However, we did not find any significant association with depression in our study.<sup>13</sup>

**Conclusion:** We concluded that the higher percentage of depression among elderly may be due to retirement, loneliness, dependency on others for medial support, nutrition and mobility, etc. Elderly women are more depressed as compared to males. In our study, we also found that depression increases with age. Thus, there is greater need of family support and care to overcome the depression among elderly.

**TABLE 2: Percentage distribution of depression in elderly.**

Category	Number	Percentage
Normal	65	32.5
Mild Depression	73	36.5
Severe Depression	62	31
Total	200	100

**TABLE 3- Demographic details of study group**

Demographic details	PERCENTAGE	
Age	60-64	17.5%
	65-69	40%
	>70	42.5%

SEX	MALE	50%
	FEMALE	50%
Literacy	literate	44%
	Illiterate	56%
AREA OF LIVING	URBAN	46.7
	RURAL	52.3
JOB	IN JOB	14
	JOBLESS	86
SYSTEMIC DISEASE	PRESENT	76
	NORMAL	24

**TABLE 4- Depression among various groups**

	NORMAL	MODERATE	SEVERE	Row Totals
Group 1	17 (11.38) [2.78]	11 (12.78) [0.25]	7 (10.85) [1.37]	35
Group 2	27 (26.00) [0.04]	34 (29.20) [0.79]	19 (24.80) [1.36]	80
Group 3	21 (27.62) [1.59]	28 (31.02) [0.29]	36 (26.35) [3.53]	85
Column Totals	65	73	62	200 (Grand Total)

**References-**

1. [http://www.censusindia.gov.in/vital\\_statistics/srs\\_report/9chap%202%20-%202011.pdf](http://www.censusindia.gov.in/vital_statistics/srs_report/9chap%202%20-%202011.pdf)
2. Alisha L. Brosse,1 Erin S. Sheets,1 Heather S. Lett2 and James A . Exercise and the Treatment of Clinical Depression in Adults Recent Findings and Future Directions. Blumenthal2 Sports Med 2002; 32 (12): 741-760
3. MaGPie Research Group. The nature and prevalence of psychological problems in New Zealand primary health care. NZ Med J 2003; 116:1-15.
4. Kuruvilla G, Davidson T, McCabe MP, et al. Treatment of depression in low-level care residential facilities for the elderly. Aust N Z J Psychiatry 2006; 40(Suppl.1): A50.
5. Yesavage JA, Brink TL, Rose TL, Lum O, Huang V, Adey M, et al. Development and validation of a geriatric depression screening scale: A preliminary report. J Psychiatr Res. 1982-83;17: 37-49. [PubMed: 7183759]
6. Nandi DN, Rajkumar S, Padmavathy R, Thara R. The incidence of mental disorders in one year in a rural community in West Bengal. Indian J Psychiatry. 1976; 18:79-87.
7. Beekman AT, Copeland JR, Prince MJ. Review of community prevalence of depression in later life. Br J Psychiatry. 1999;174 :307-11. [PubMed]
8. Blazer D, Williams CD. The epidemiology of dysphoria and depression in an elderly population. Am J Psychiatry. 1980;137: 439-44. [PubMed]
9. Urbina Torija JR, Flores Mayor JM, Garcia Salazar MP, Torres Buisán L, Torrubias Fernández RM. Depressive symptoms in the elderly. Prevalence and associated factors. Gac Sanit. 2007;21: 37-42. [PubMed]
10. Venkoba Rao A. Psychiatry of old age in India. Int Rev Psychiatry. 1993;5: 165-70.
11. Nandi PS, Banerjee G, Mukherjee SP, Nandi S, Nandi DN. A study of psychiatric morbidity in an elderly population in a rural community in West Bengal. Indian J Psychiatry. 1997;39: 122-9. [PMC free article] [PubMed]
12. Djernes JK. Prevalence and predictors of depression in populations of elderly: A review. Acta Psychiatr Scand. 2006;113: 372-87. [PubMed] Fiske Amy, Wetherell Julie Loebach, Gatz Margaret. Depression in Older Adults. Annu Rev Clin Psychol. 2009 ; 5: 363-389