

## A CROSS-SECTIONAL STUDY TO ASSESS DEPRESSION AMONG GERIATRIC AGE GROUP AND ITS ASSOCIATION WITH SOCIAL AND PHYSICAL HEALTH

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Conflicts of Interest: Nil

### ABSTRACT:

#### Introduction:

Depression is affecting 322 million people globally. India is catering 18% of the global estimate for depression<sup>1</sup> depression. India is developing country which is witnessing significant changes like globalization, urbanization, migration and modernization hence depression is estimated to have rising trend in the coming future.

#### Objectives:

1. To study the prevalence of depression in the geriatric age group.
2. To assess association of socio-demographic factors with depression.
3. To assess association of physical and social health with depression

**Material and methods:** A cross sectional study was conducted in two old age home situated in Bilaspur, Chhattisgarh (Kalyan kunj old age home, Mother Teresa old age home) with the approval of institutional ethical committee. The study was conducted during the period of April 2017 to December 2017 among all the elderly residing in the old age home. All the resident of old age home above 60 years who gave consent for the study were included. Data was collected using WHO's patient health questionnaire 9(PHQ-9).

**Results:** The overall prevalence of depression in this study was found to be 54%. In our study 75% of the elderly male participants were having depression. The prevalence of depression was found to increase with increasing age. In our study depression was significantly more among physically unfit participants and the participants who were socially unhealthy. There was statistically significant difference across physical health and social health with depression ( $p < 0.01$ ).

**Conclusion:** Prevalence of depression was high among elderly population residing in old age home in Bilaspur. Physical health and social wellbeing was significantly associated with the depression in elderly. It is necessary to create awareness among society for early diagnosis and treatment.

**Keywords:** Depression, Elderly, geriatric depression

#### Introduction

Depression is affecting 322 million people globally. India is catering 18% of the global estimate for depression<sup>1</sup> depression. India is developing country which is witnessing significant changes like globalization, urbanization, migration and modernization hence depression is estimated to have rising trend in the

coming future.

Depression is a one of the most common psychiatric disorders in the elderly and continues to be under-diagnosed and undertreated. Depression has adverse consequences like poor life satisfaction, poor life quality, loneliness, suicidal tendency and various morbidity and mortality.

Prevalence of depression among elderly is 12-15% but very rarely it is diagnosed and treated. Various etiological factor for depression among elderly age group is genetic susceptibility, chronic disease and disability, pain, frustration with limitations in activities of daily living, personality traits(dependant, anxious and avoidant), adverse life events(separation, divorce, poverty and social isolation) and lack of social support.<sup>2</sup>

With a rapidly aging society, geriatric mental health is emerging as an important public health concern. The heterogeneity of symptoms of depression in the elderly leads to under diagnosis and can be an impediment to the patients being given proper medical care. It is therefore important to study elderly patients in primary care with less severe depression as this condition is far more common than, but qualitatively similar to, major depressive disorder and is associated with functional disability, increased morbidity, and high mortality rates if left without rehabilitation and treatment. Hence this study was carried out to study depression among geriatric age group and the various factors associated with it.

### Objectives

4. To study the prevalence of depression in the geriatric age group.
5. To assess association of socio-demographic factors with depression.
6. To assess association of physical and social health with depression.

### Methodology

A cross sectional study was conducted in two old age home situated in Bilaspur, Chhattisgarh (Kalyan kunj old age home, Mother Teresa old age home) with the approval of institutional ethical committee. The study was conducted during the period of April 2017 to December 2017 among all the elderly residing in the old age home. All the resident of old age home above 60 years who gave consent for the study were included. Data was collected using WHO’s patient health questionnaire 9(PHQ-9). Data was analyzed using the SPSS version 16 software. Descriptive statistics were reported as mean (SD) for continuous variables and frequency (percentage) for categorical variables. Pearson’s Chi-square test was used to find association between two categorical variables. A p value< 0.05 was considered as statistically significant.

### Result

**Table 1: Sociodemographic profile of the respondents (n=100)**

		f	%
Gender	Male	36	36
	Female	64	64
Age (years)	60-69 years	45	45
	70-79 years	32	32
	>80 years	23	23
Previous occupation	Skilled	8	8
	Unskilled	92	92
Education	Literate	56	56
	Illiterate	44	44

Table 1 shows that 36% of the study participants were males and 64 were females with majority being in the age group of 60-69 years. Majority of the respondents were literate (56%) and had previous occupation of unskilled worker.

**Table 2: Distribution of depression among the participants**

PHQ9 SCORE	SEVERITY OF DEPRESSION	FREQUENCY
0-4	NO DEPRESSION	46
5-9	MILD DEPRESSION	15
10-14	MODERATE DEPRESSION	8
15-19	MODERATELY SEVERE DEPRESSION	15
20-27	SEVERE DEPRESSION	16

Table 2 shows that among study participants, 46% were not depressed, 15% were having mild depression, 8% were moderately depressed, 15% were moderately severe and 16% were severely depressed.

**Table 3: Association of depression with gender**

Sex	Depression	No depression	Chi- square	P value
Male(n=36)	27 (75)	9 (25)	9.9864	<0.01*
Female (n=64)	27 (42)	37 (58)		

\*p <0.05 = significant

Table 3 shows that 75% of the elderly male participants were having depression . There was statistically significant difference across the gender regarding depression (p<0.01)

**Table 4: Association of depression with age**

Age	Depression f (%)	No depression f (%)	Chi- square	P value
60-69 (n=45)	16 (35.5)	29 (64.4)	11.21	<0.01*
70-79(n=32)	22 (68.7)	10 (31.3)		
>80 (n=23)	16 (69.5)	07(30.5)		

\*p <0.05 = significant

Table 4 shows that approx 68% of the participants were suffering from depression in the age group of 70-79 years and above 80 years. There was statistically significant difference across the age regarding depression (p<0.01)

**Table 5: Association of depression with previous occupation**

Previous occupation	Depression	No depression	Chi- square	P value
Skilled (n=8)	3 (37.5)	5 (62.5)	0.9531	0.32
Unskilled (n=92)	51 (55.4)	41 (44.5)		

Table 5 shows that majority of the elderly participants who were suffering from depression were working in an unskilled occupation .This difference across occupation was not found to be statistically significant (p=0.32).

**Table 6: Association of depression with education**

Education	Depression	No depression	Chi- square	P value
Literate (n=56)	31(55.4)	25 (44.6)	0.0944	0.75
Illiterate (n=44)	23 (52.3)	21 (47.7)		

Table 6 shows that there was no statistically significant difference seen across depression and education.

**Table 7: Association of depression with physical health (n=100)**

Physical health	Depression	No depression	Chi- square	P value
Physically fit (n=41)	6 (14.6)	35 (85.4)	40.71	<0.01*
Physically unfit (n=59)	48 (81.3)	11 (18.7)		

\*p <0.05 = significant

Table 7 shows that depression was significantly more among physically unfit participants. There was statistically significant difference across physical health and depression (p<0.01).

**Table 8: Association of depression with social health (n=100)**

Social health	depression	No depression	Chi- square	P value
Socially healthy (n=32)	10 (31.3)	22 (68.7)	8.505	<0.01*
Socially unhealthy (n=68)	44 (64.7)	24 (35.3)		

\*p <0.05 = significant

Table 8 shows that prevalence of depression was more among the participants who were socially unhealthy. Statistically significant difference was seen across social health and depression (p<0.01).

## Discussion

The overall prevalence of depression in this study was found to be 54%. Studies done by Swarnalatha N<sup>3</sup>, Hughes et al<sup>4</sup> and Venkoba Rao's etal<sup>5</sup> found prevalence to be 47%, 61.5% and 43.0% respectively. In our study 15% were having mild depression, 8% were moderately depressed while 15% were moderately severe and severely depressed.

In our study 75% of the elderly male participants were having depression. There was statistically significant difference across the gender regarding depression (p<0.01). While Swarnalatha N<sup>3</sup> found that prevalence of depression was significantly more in elderly females (56.5%) than in the male subjects (37.5%).

In the present study approx 68% of the participants were suffering from depression in the age group of 70-79 years and above 80 years. Statistically significant difference across the age regarding depression was seen (p<0.01). This finding shows that the prevalence of depression was found to increase with increasing age. Reason could be increased physical and economical dependency, loss of the spouse, negligence by the family members and loss of self esteem. Similar findings were found in a study done by Jariwala Vishal et al<sup>6</sup> and Raj

Kumar et al<sup>7</sup>.

In the present study majority of the elderly participants who were suffering from depression were working in an unskilled occupation .But this difference across occupation was not found to be statistically significant. There was no statistically significant difference seen across depression and education.

In our study depression was significantly more among physically unfit participants and the participants who were socially unhealthy. There was statistically significant difference across physical health and social health with depression (p<0.01).

## Conclusion

Prevalence of depression was high among elderly population residing in old age home in Bilaspur. Mild, moderate and severe depression was equally prevalent among elderly. Physical health and social wellbeing is significantly associated with the depression in elderly.

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