

# Depression and anxiety among the elderly persons from institutional and noninstitutional settings in the field practice area of a tertiary-care institute, Andhra Pradesh: a comparative study

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## Abstract

**Background:** Among the elderly population, the most common psychiatric conditions include depression and anxiety, which often go untreated or unrecognized, owing to the lack of knowledge and misperceptions about these conditions. As the rise in aging population is the current trend all over the world, these morbidities may result in decreased quality of life among elderly population if left untreated.

**Objective:** To assess and compare depression and anxiety among the elderly people from institutional and noninstitutional settings.

**Materials and Methods:** A total of 112 elderly persons, 56 from old-age home and 56 from the community in the field practice area of a tertiary-care institute, Kuppam, were selected. Geriatric Depression Scale (GDS) and Hamilton Anxiety 14 item rating scale were used to assess the depression and anxiety, respectively.

**Result:** Overall prevalence of depression was 66.1%, and anxiety was 93.8% among the study population. Prevalence of depression was more among institutional elderly persons compared with those from the community, which was statistically significant. Prevalence of anxiety was almost equal among the elderly population from institutional and noninstitutional settings.

**Conclusion:** High prevalence necessitates early screening and management of depression and anxiety, especially among the institutional elderly persons. A multidimensional approach to manage these problems to improving the quality of life of the elderly individuals should be the goal.

**KEY WORDS:** Elderly, depression, anxiety, institutional, Noninstitutional

## Introduction

Owing to decline in fertility rates and increase in life expectancy rates, world's population is aging.<sup>[1]</sup> According to the United Nations Population Division, India's older population

may increase dramatically over the coming years. The percentage of India's population in the age group of 60 years and above is 7.6% in 2000, expected to be 12.5% in 2025, and 20.6% in 2050.<sup>[2]</sup> By the middle of this century, 60 years and older population in India was expected to reach 323 million, a number greater than the total US population in 2012.<sup>[3]</sup>

In India, life expectancy at birth for male subjects increased from 42 years (1951–1960) to 58 years (1986–1990), and it is projected to increase to 67 years for male and 69 years for female subjects by the year 2016.<sup>[4]</sup>

Rise in aging population results in proportionate rise in age-related health conditions. Mental disorders in the elderly persons often go untreated or unrecognized, especially in developing world, owing to the misperceptions that these disorders are a normal part of aging and a natural reaction to

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chronic illness, loss of family members, and social transition occurring with age.<sup>[5]</sup> If left untreated, may result in the onset of physical, cognitive, functional, and social impairments and decreased quality of life among elderly persons. Among the elderly population, the most common psychiatric conditions are depression and anxiety.<sup>[6]</sup>

With this background, this study has been taken up with the objective to assess and compare depression and anxiety among the elderly people from old-age homes and community dwellings (i.e, institutional and noninstitutional settings, respectively).

## Materials and Methods

This cross-sectional study was carried out in the field practice area of PES Institute of Medical Sciences and Research, Kuppam, Andhra Pradesh, between September 2013 and October 2013. A total of 112 elderly (60 years and older) persons were included in the study, 56 from old-age homes using purposive sampling technique and 56 from community dwellings using simple random sampling technique. Ethical clearance was obtained from Institutional ethics committee. Data were collected by interviewing the study subjects after obtaining informed written consent. A pro forma containing a set of pretested, semistructured, validated questionnaire after converting it into local language was used. It has three parts: sociodemographic variables, 15-item Geriatric Depression Scale<sup>[7]</sup> (GDS), and Hamilton Anxiety 14-item rating scale.<sup>[8]</sup>

### Statistical Analysis

The data were entered into MS Excel 2007 version and further analyzed using Epi Info, version 7. The descriptive data consisting of categorical and continuous variables were analyzed by using percentages, mean and standard deviation, respectively. For inferential statistics,  $\chi^2$ -test and independent sample *t*-test were used. A probability value of less than 0.05 was considered as statistically significant.

## Result

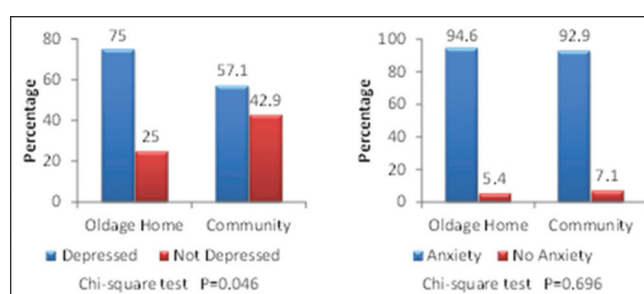
A total of 112 elderly people were included in the study, 56 each from old-age homes and community. Majority of the elderly people were in the age group of 60–69 years. Overall mean age of the elderly population was  $68.55 \pm 6.54$  years. The mean age of people in old-age homes was 69.75 years ( $SD \pm 6.50$ ), whereas in community 67.36 years ( $SD \pm 6.41$ ) [Table 1].

Percentage of female subjects was more in old-age homes, whereas married people were more among the subjects from the community. Illiterates accounted for 85.7% in the community, whereas in old-age homes illiterates were equal to literates.

The overall prevalence of depression and anxiety was 66.1% and 93.8%, respectively, and comparison of depression and anxiety between the two groups is depicted in Figure 1.

**Table 1:** Sociodemographic profile of the study subjects

Sociodemographic factors	Old age home	Community
Age (years) mean $\pm$ SD	69.75 $\pm$ 6.50	67.36 $\pm$ 6.41
Gender		
Male	35.7	53.6
Female	64.3	46.4
Marital status (%)		
Married	62.5	91.1
Others	37.5	8.9
Education (%)		
Illiterate	50	85.7
Literate	50	14.3



**Figure 1:** Comparison of depression and anxiety between the groups

**Table 2:** Profile of depression and anxiety

	Old age home in %	Community in %
Depression		
No depression	25	42.9
Mild	33.9	32.1
Moderate	25	16.1
Severe	16.1	8.9
Anxiety		
No anxiety	5.4	7.1
Mild	80.4	83.9
Moderate	14.2	7.2
Severe	0	1.8

There was a statistically significant difference between the people who are depressed and not depressed, among the subjects from the old-age home.

Prevalence of depression was more among institutional elderly (75%) persons, compared with those from the community (57.1%), and the prevalence of anxiety was almost equal among the elderly persons from institutional and noninstitutional settings. The difference among the groups for depression was statistically significant with  $P < 0.05$ . Among those with depression and anxiety living in old-age home and in the community, milder form is more prevalent, compared with moderate and severe forms (33.9% and 80.4% among elderly persons in old-age home vs 32.1% and 83.9% among those from the community, respectively) [Table 2].

**Table 3:** Sociodemographic variables in relation to depression and anxiety

Sociodemographic variables	Depressed (%)	Not depressed (%)	P	Anxiety (%)	No anxiety (%)	P
Age group (in years)						
60–69	62.6	37.5	0.646	92.2	7.8	0.545
70–79	70.3	29.7		97.3	2.7	
≥80	72.7	27.3		90.9	9.1	
Gender						
Male	58.0	42.0	0.078	92.0	8.0	0.492
Female	72.6	27.4		95.2	4.8	
Marital status						
Married	59.3	40.7	0.006	91.9	8.1	0.133
Others	88.5	11.5		100	0.0	
Education						
Illiterate	67.1	32.9	0.448	94.7	5.3	0.531
Literate	63.9	36.1		91.7	8.3	

From Table 3, it was evident that prevalence of depression increased with age, with the highest percentage being among the 80 years and older age group (72.7%) and was more among female subjects with 72.65%. In marital status, married people showed less (58%) prevalence of depression compared with others, the difference being statistically significant ( $P = 0.006$ ). Although the prevalence of anxiety varied with various factors such as different age groups, gender, marital status, and level of education among the studied subjects, they were not statistically significant.

## Discussion

Psychiatric morbidity is one of the domain which can significantly influence the quality of life of elderly people. Because depression and anxiety are the most common psychiatric morbidity among elderly persons, understanding this issue is vital for comprehensive geriatric assessment and care.<sup>[5,6]</sup>

In this comparative study, 112 elderly people were included, 56 from the community and 56 from old-age home. Mean age of the study population was 68.55 years with a SD of 6.54 years. There was a high prevalence of depression among the institutional and elderly persons living in community (75% and 57.1%, respectively).

There are limited studies which compared institutional and noninstitutional elderly persons. However, among the studies conducted separately on the prevalence of depression among the elderly individuals living in old-age homes, a study from Ahmednagar, Maharashtra,<sup>[9]</sup> reported 53.75%, whereas it was 47.33% and 37.5% in the studies from Kathmandu<sup>[10]</sup> and Cairo,<sup>[11]</sup> respectively. Studies from Kanchipuram, Tamil Nadu<sup>[12]</sup> and Vishakapatnam<sup>[13]</sup> reported prevalence of depression as 42.7% and 31.7% respectively, among the elderly persons in the rural community. Low prevalence of depression (24.46%) was reported among rural elderly persons in Dharwad, Karnataka.<sup>[14]</sup>

From these studies, it was evident that there was a higher prevalence of depression among the elderly persons from institutional setting when compared with those from the community. This can be attributed to the lack of support from their family members, resulting in the feeling of loneliness in the old age homes, as substantiated by the results from this study. In this study, the prevalence of depression was significantly more (88.5%) among the elderly persons, other than married.

Prevalence of anxiety in this study was 94.6% among institutional elderly persons when compared with 92.6% among those living in the community. In a comparative study done on the psychiatric morbidity in the geriatric population,<sup>[15]</sup> prevalence of anxiety was 5% among elderly population living in old-age homes and 6.7% in elderly population in the community. A study done in Pune<sup>[16]</sup> reported that the prevalence of anxiety disorders was 6.4% among the elderly persons aged 65 years and older. Although the levels of anxiety among the elderly people varied from one study to the other, there was no significant difference between the institutional and non-institutional elderly persons.

This study showed high prevalence of depression and anxiety. Variations in the prevalence of depression and anxiety across many studies can be attributed to type of screening tools used. This study is limited owing to operational feasibility that we could access fewer elderly persons from institutional setting in our field practice area; a large sample with a wider coverage can reveal the more realistic scenario.

## Conclusion

To conclude, prevalence of depression and anxiety was high among the elderly persons from both the groups; however, old-age home elderly persons were significantly more depressed compared with those from the community, which needs to be addressed in many perspectives.

Results from this study highlight the need for proper assessment and confirmation of depression and anxiety, especially among the institutional elderly persons. Elderly persons living in the institution need counseling and special attention to address these issues. Early intervention is required to prevent the morbidity and limit the disability. A multi-dimensional approach to manage these problems, with an ultimate goal of improving the quality of life of the elderly persons should be the need of the hour.

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