

Depression among Elderly in a Rural Area of Tamilnadu: A Cross Sectional Study

Malai Ammal. M¹, Vijayalakshmi. M²

¹Assistant Professor, Department of Community Medicine, Government Medical College, Omandurar Government Estate, Chennai, Tamilnadu, ²Professor and HOD, Department of Community Medicine, Government Medical College, Thiruvallur, Tamilnadu.

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Abstract

Background: Depression is a common problem in older adults but it is not a part of normal ageing process. According to Centre for Disease Control and Prevention (CDC), 1% to 5% of the general elderly population are affected by depression. It is often misdiagnosed as many of its symptoms mimic normal age related issues. Depression in older adults may affect their daily activities, reduces their quality of life and increases their suicidal risk. Hence this study is conducted to assess prevalence of depression among elderly people in a rural population.

Methods: A community based cross sectional study was conducted in a rural area of Tamilnadu among elderly people aged 60 and above using a semi-structured questionnaire containing sociodemographic details and Geriatric Depression Scale(GDS)- Short Form after obtaining informed consent from the participants.

Conclusion: Among 166 participants, 42.8% had depression. Depression was more prevalent in elderly who were 80 years and above, female participants, who were economically dependent on others, living alone and widowed/separated. Depression has to be diagnosed early and promptly treated to prevent adverse outcomes.

Key words: Depression, Nutrition, Elderly, Older Adults.

Introduction

The world's population is rapidly ageing. Longevity is an incredible resource for society where elder people contribute as mentors, caregivers, artists, consumers, innovators, entrepreneurs and members of the workforce. Yet the extent of the opportunities that arise from increasing longevity will be heavily

dependent on one key factor - the health of the older populations.¹

Globally, the 60-plus population constitutes about 11.5 percent of the total population of 7 billion. By 2050, this proportion is projected to increase to about 22 percent when the elderly will out-number children (below 15 years of age). By the end of the

Corresponding Author: Malai Ammal. M, Assistant Professor, Department of Community Medicine, Government Medical College, Omandurar Government Estate. Chennai. Tamilnadu.

E-mail: malaisiva08@gmail.com

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century, the elderly will constitute nearly 34 percent of the total population in the country. In Tamilnadu, elderly people constitutes 11.2% of total population according to 2011 census.^{2,3}

Non-clinical depression is a common mental disorder among elderly. Depression plays a major role in physical health, nutritional intake, ADL and quality of life. On the other hand, many recent studies are showing association between mental health and sense of well-being.

The relationship between health and depression is a vicious cycle. Geriatric population, who are more prone for dependency either physically or economically are at the risk of developing depressive disorders.

This study was conducted among older people in a rural area to study the prevalence of depression and its associated risk factors.

Objectives:

1. To assess the prevalence of depression among elderly people.
2. To identify the risk factors contributing to the development of depression

Materials and Methods

This cross sectional study was conducted among 166 community dwelling elders in a rural area of North Tamilnadu.

After obtaining institutional ethical committee approval, the participants were selected using simple random sampling from the list of elders obtained from

the local multipurpose health worker. Information about the study and its purpose were explained. After obtaining written consent from the participants, they were interviewed using a pre-tested questionnaire containing three sections-

- i. Socio-demographic details,
- ii. Depression assessed by Geriatric Depression scale.⁴
- iii. Nutritional status assessed using Mini Nutritional Assessment⁵and

The data were entered in MS excel and analysed using SPSS version 21.

Results

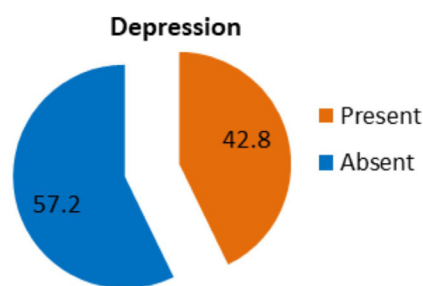


Figure 1: Prevalence of Depression

Depression was found to be present among 42.8% (n=77) of study participants (Figure 1). Among the participants, 8.4%(14) were 80 years and above, 66.9%(n=111) were female and 64.5%(9107) had no formal education. Of the participants, 15.7%(26) were living alone and 63.3%(105) had financial dependency. (Table 1)

Table 1: Sociodemographic profile:

S.No	Characteristics	Percentage(n)	Chi-square value	p-value
1.	Age Group		12.823	0.001
	80 years and above	8.4(14)		
	70 - 79 years	20.5(34)		
	60 - 69 years	71.1(118)		
2.	Gender		10.076	0.002
	Female	66.9(111)		
	Male	33.1(55)		
3.	Education		7.798	0.168
	Illiterate	64.5(107)		
	Literate	35.5(59)		

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4.	Living arrangement			
	Alone	15.7(26)	38.783	<0.001
Lives with Family	84.3(140)			
5.	Financial dependency			
	None	36.7(61)	8.649	0.003
Present	63.3(105)			

About 59.6%(99) had at-least one comorbidity. 12%(20) were underweight and 11.4%(19) were obese.(Table 2)

Nutritional status assessed by MNA scale showed 23.5%(39) were undernourished and 27.1%(45) were at risk of developing undernutrition.(Table 2).

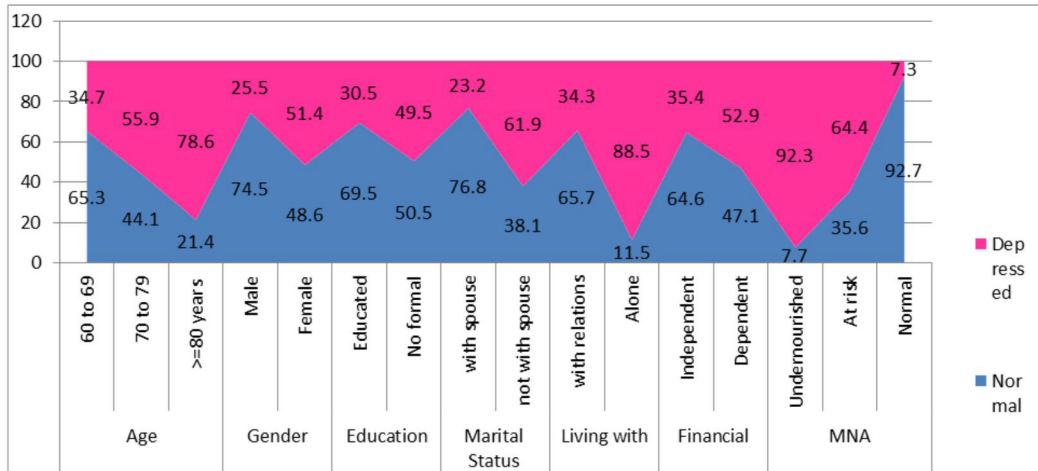


Figure 2: Prevalence of Depression among various factors

Prevalence of Depression was found to be more in elders aged >80 years (78.6%), females (51.4%), with no formal education(49.5%), living alone(88.5%), financially dependent (52.9%) and poor nutritional

status (92.3%) (Figure 2). Statistically significant association was found between depression and age, gender, economic dependency, living arrangement, presence of comorbidity and nutritional status.

Table 2: Association between BMI, Comorbidity and depression.

S.No	Characteristics	Percentage(n)	Chi-square value	p-value
1.	Comorbidity			
	At-least one	59.6(99)	1.143	0.285
None	40.4(67)			
2.	BMI			
	Underweight	12(20)	0.542	0.144
	Normal	49.4(82)		
	Overweight	27.2(45)		
Obese	11.4(19)			
3.	Nutritional status			
	Undernourished	23.5(39)	89.843	<0.001
	At risk of undernutrition	27.5(45)		
Normal	49.4(82)			

Discussion

Prevalence of depression was 42.8% among 166 participants of the study. In a study done in Maharashtra by Kamble et al, the prevalence of depression found to be 31.4%⁶. And in Andhra rural area, the prevalence of depression was found to be 44.7% in a study conducted by Bodhare et al whereas prevalence was 47% in Reddy et al study conducted in Tamilnadu^{7,8}.

In this study, it was observed depression was more prevalent in participants who were of age 80 years and above, female participants, economically dependent, who were living alone, who had no formal education and in undernourished elders. Similarly, Reddy et al noted that depression was more among females, illiterates, lower social class, those living alone, financially and physically dependent elders.

Significant statistical association was found in age >80 years, females, those living alone, economically dependent and poor nutritional status. Similar findings were found in Grover et al review article⁹. Whereas age and female gender were not significantly associated with geriatric depression in a study done by Rajkumaret al¹⁰. The difference in findings might be due to difference in study setting, study population and study tool employed.

Conclusion

This study concludes that psychosocial factors play a major role in depression among elderly people. Comprehensive Geriatric Care incorporating mental health and addressing all domains of ageing must be provided from primary care. Targeted interventions to counteract modifiable risk factors for depression can be planned and implemented. Geriatric gatherings can be promoted in residential areas which will combat depression and improve social life of elderly people.

The study participants with depression were encouraged to get help from the nearest public health facility.

Ethical clearance: Obtained from Institutional Ethics Committee of Madras Medical College,

Chennai, Tamilnadu, India.(Dated-05.12.2017, No - 30122017)

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Conflict of Interest: Nil

References

1. Global strategy and action plan on ageing and health. [Internet] Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO. Available from: <https://www.who.int/ageing/global-strategy/en/>
2. India Ageing Report. New Delhi:United Nations Population Fund;2017. Caring for Our Elders : Early Responses Caring for Our Elders : Early Responses. 2017; Available from: <https://www.india.unfpa.org/en/news/how-much-do-we-care-our-elders>
3. Elderly in India[Internet]. New Delhi:Ministry of Statistics and Programme Implementation, Government of India;2016. Available from:<https://www.mospi.gov.in>
4. Courses O. Geriatric Depression Scale (GDS) Short Form. Clin Gerontol. 1986;5:5-6.
5. Vellas, B; Vilars H; Abellan G et al. Mini Nutritional Assessment. J Nutr Heal Ag. 2006;67200.
6. Kamble, S. V.^{1,*}; Dhumale, G.B.²; Goyal, R.C.³; Phalke, D. B.⁴; Ghodke, Y. D.⁵. Depression among Elderly Persons in a Primary Health Centre Area in Ahmednagar, Maharastra. Indian Journal of Public Health 53(4):p 253-255, Oct-Dec 2009.
7. Bodhare TN, Kaushal V, Venkatesh K, Anil KumarM. Prevalence and risk factors of depression among elderly population in a rural area. Perspectives in medical research 2013; 1: 11-15
8. Reddy NB, Pallavi M, Reddy NN, Reddy CS, Singh RK, Pirabu RA. Psychological morbidity status among the rural geriatric population of Tamil Nadu, India: A cross-sectional study. Indian J Psychol Med 2012;34:227-31.
9. Grover, Sandeep; Malhotra, Nidhi. Depression in elderly: A review of Indian research. Journal of Geriatric Mental Health 2(1):p 4-15, Jan-Jun 2015. | DOI: 10.4103/2348-9995.161376
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 IntPsychogeriatr. 2009;21:372-8.