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Original Research Article

Prevalence and associated factors of geriatric depression among institutionalised senior citizens: a cross-sectional study

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ABSTRACT

Background: Ageing is an inevitable process. As a result of empty nest syndrome, the senior citizens of Kerala, are forced for institutionalization. Prevalence of mental morbidity among institutionalized senior citizens outnumbers those living in families. Depression is one of the most common psychiatric morbidities among senior citizens. The present study aims to determine the prevalence and factors associated with geriatric depression among institutionalized senior citizens of Ernakulam district.
Methods: A cross-sectional descriptive study was conducted over a period of 3 months among 238 institutionalised senior citizens aged 60 years and above using geriatric depression scale- short form (GDS-SF). Data was entered and analysed using SPSS.
Results: Among participants, 23.11% reported mild depression, 4.20% had moderate and 7.14% had severe depression. Chi-square test was used to study the association of various factors with geriatric depression. Previous employment status, source of income, frequency of visit by relatives, contact with relatives through phone, duration of leisure time activities and sleep quality showed a statistically significant association.
Conclusions: The study highlights the need for regular screening activities. Further research is necessary on identification of modifiable risk factors.

Keywords: Geriatric depression, Kerala, Old age homes

INTRODUCTION

Ageing is an inevitable process. It is a gradual, intrinsic, individualized and progressive phenomenon. According to population census 2011, there are nearly 104 million elderly persons in India. As per the report of the technical group on population projections for India and states 2011-2036, an increase of nearly 56 million elderly persons is expected in 2031over the population census 2011. State-wise data on elderly population divulge that Kerala has maximum proportion of elderly people in its population (16.5%), which is projected to be 20.9% in 2036. The growth in elderly population may be due to the longevity of life achieved because of economic well-being, better healthcare and medical facilities and reduction in fertility rates. Migration of youth combined with increased longevity leads to an empty nest syndrome. The deteriorating health poses a serious threat for them to stay alone which finally ends up in institutionalization.[1]

Studies have reported increased prevalence of psychiatric morbidity among senior citizens staying at old age homes than with families. The most common psychiatric morbidity among senior citizens are dementia and depression.[2,3] Even though depression is a common mental health problem in the elderly population, it is undiagnosed in half of the cases.[4] Depression is identified as a factor strongly associated with suicide among senior citizens.[5] It is also associated with disability, increased mortality, and impairment from physical diseases.[6]

The reason for planning this study lies on the fact that very few studies have been conducted on geriatric depression at Ernakulam district, one of the districts with the highest number of senior citizens as well as old age homes.

This study aimed to assess the prevalence of geriatric depression among institutionalised senior citizens of Ernakulam district. The study further aimed to determine the factors associated with geriatric depression.

METHODS

A cross-sectional descriptive study was conducted to assess geriatric depression among senior citizens residing at old age homes of Ernakulam district.

In the current study, adults aged 60 years and above were considered as senior citizens. The study was conducted at five old age homes of Ernakulam district, selected using purposive sampling. The study was conducted for three months between May 2023 and July 2023.

Inclusion criteria

Senior citizens staying at old age homes aged 60 years and above, who are able to follow Malayalam and were willing to participate in the study were included as study participants.

Exclusion criteria

Senior citizens with debilitating illness, uncorrected visual or hearing impairment and those who are unable to communicate were excluded.

Study tools

Depression was assessed using geriatric depression scale-short form (GDS-SF). GDS-SF is a standardised tool consisting of 15 items, developed by Yesavage and Sheikh. Scores of 0-4 are considered normal; 5-8 indicate mild depression; 9-11 indicate moderate depression; and 12-15 indicate severe depression. The translated Malayalam tool was used to collect data from the participants. A self-structured questionnaire was used to assess their sociopersonal data like age, gender, education, marital status, previous employment status, source of income, duration of stay, reason of stay at old age home, frequency of visit by relatives, contact with relatives through phone, duration of leisure time activities and presence of medical problems. Sleep quality was assessed using Pittsburg sleep quality index (PSQI). PSQI is a standardised tool consisting of 19 questions assessing seven components of sleep quality.

Data collection procedure

After obtaining formal permission from the institutional ethics committee and old age home authorities, the investigators explained the purpose of the study to the participants and a written informed consent was obtained. The investigator after collecting sociopersonal data, assessed depression among 238 participants using GDS-SF. The information was collected on one-to-one basis through interview method. Confidentiality and anonymity were maintained during the process of data collection.

Data analysis

Data were coded and statistical analysis was done using IBM Corp. Released 2019. IBM 64 SPSS Statistics for Windows, version 26.0. Armonk, NY: IBM Corp. running on the Windows 95 operating system. All tests were two-tailed, with a significance set at $p<0.05$.

RESULTS

Out of the 238 participants, 65.55% were normal. While 23.11% of study samples reported mild depression, 4.20% and 7.14% reported moderate and severe depression respectively (Figure 1).

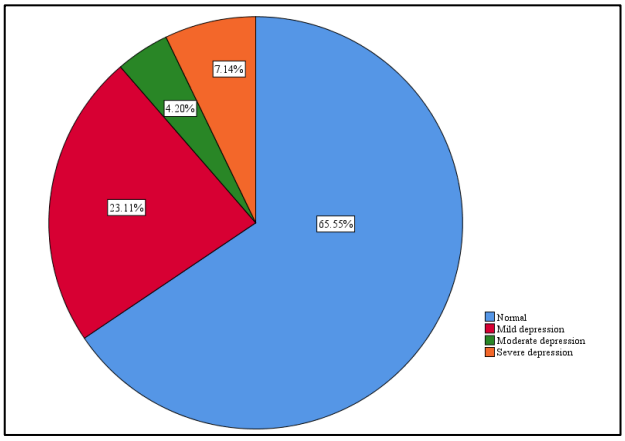

Figure 1: Distribution of study participants based on grades of depression.

A statistically significant association was found between geriatric depression and sociopersonal variables like previous employment status, source of income, frequency of visit by relatives, contact with relatives through phone, duration of leisure time activities and sleep quality. Surprisingly no association was found between geriatric depression and factors like age, gender, education, marital status, duration of stay, reason of stay at old age home or presence of medical problems (Table 1).

Table 1: Association between sociopersonal variables and depression.

Variables	No depression f (%)	Depression f (%)	χ^2 statistic	P value
Age (years)				
≤75	100 (42.02)	50 (21.01)	0.23	0.63
>75	56 (23.53)	32 (13.44)		
Gender				
Male	66 (27.73)	38 (15.96)	0.35	0.55
Female	90 (37.83)	44 (18.48)		
Education (years)				
≤12	134 (56.29)	76 (31.93)	2.38	0.12
>12	22 (9.25)	6 (2.53)		
Marital status				
Single	60 (25.21)	34 (14.29)	0.44	0.80
Widowed/separated	96 (40.33)	48 (20.17)		
Previous employment status				
Unemployed	58 (24.36)	16 (6.72)	14.60	0.012*
Self employed	4 (1.69)	2 (0.85)		
Manual labourer	70 (29.4)	54 (22.68)		
Government employee	4 (1.69)	2 (0.85)		
Private firm employee	20 (8.4)	8 (3.36)		
Source of income				
Nil	98 (41.17)	40 (16.9)	7.60	0.022*
Pension	4 (1.69)	0 (0)		
Relatives	54 (22.68)	42 (17.65)		
Duration of stay in old age home				
<1 year	60 (25.21)	20 (8.4)	5.10	0.78
1-5 year	36 (15.13)	26 (10.92)		
6-10 year	60 (25.21)	36 (15.13)		
Reason for stay at old age home				
Voluntary	40 (16.83)	15 (6.3)	3.94	0.27
No caretakers	88 (36.96)	45 (18.9)		
Quarrel with family members	24 (10.08)	17 (7.14)		
Chronic illness	4 (1.69)	5 (2.1)		
Frequency of visit by relatives				
Once a month	26 (10.92)	6 (2.52)	16.88	0.002*
Once in three months	16 (6.73)	2 (0.85)		
Once in 6 months	14 (5.88)	4 (1.69)		
Once in a year	20 (8.4)	6 (2.52)		
Never	80 (33.6)	64 (26.89)		
Contact with relatives through phone				
Daily	18 (7.56)	4 (1.69)	10.9	0.049*
Twice a week	6 (2.52)	0 (0)		
Weekly once	10 (4.2)	6 (2.52)		
Once in 2 weeks	5 (2.1)	2 (0.85)		
Monthly once	23 (9.66)	6 (2.52)		
Never	94 (39.49)	64 (26.89)		
Presence of medical problems				
Yes	80 (33.62)	50 (21.01)	2.04	0.153
No	76 (31.93)	32 (13.44)		
Duration of leisure time activities				
<15 minutes	72 (30.26)	22 (9.25)	16.81	0.001*
15-30 minutes	32 (13.44)	12 (5.04)		
31-60 minutes	18 (7.56)	10 (4.2)		
>60 minutes	34 (14.29)	38 (15.96)		
Sleep quality				
Poor	76 (31.93)	62 (26.05)	15.95	0.00*
Good	80 (33.62)	20 (8.4)		

*Statistically significant.

DISCUSSION

Prevalence of geriatric depression

In this study, the prevalence of depression among institutionalised senior citizens was 34.45%. Systematic reviews and metanalysis have reported similar prevalence rates, both globally as well as nationally.[4,7-8]

Meanwhile studies comparing geriatric depression among those staying at old age homes and at community, have reported a higher prevalence rate for those staying at old age homes. A comparative study conducted at Gujarat reported a slightly higher prevalence rate among senior citizens staying at old age homes (46.6%) than in community (32.2%).[9] A study conducted among both community dwelling and institutionalised senior citizens reported an overall prevalence rate of 59%.[10] Meanwhile, comparative study conducted at Visakhapatnam, reported a much higher prevalence of 80%.[11]

Studies conducted at old age homes have shown wide variation in prevalence rates of geriatric depression. A cross-sectional study conducted at Tumkur using GDS-30 reported a prevalence of 62.16%.[12] Another study reported a prevalence rate close to the present study findings (47.8%).[13] On the contrary a pilot study conducted among old age home residents of northern Kerala reported a lower rate of 25%.[14]

Community based studies conducted at south India mostly reported higher prevalence rates. Vincent et al reported that 77.56% of senior citizens are suffering from geriatric depression at Tamil Nadu.[15] Another study by Thilak et al reported a prevalence rate of 72.4% among senior citizens of rural Kannur.[16] A study conducted among senior citizens staying at a rural community in Kerala reported a prevalence of 52.4%.[17] Another study conducted at three districts of Kerala reported a prevalence rate close to the present study (44.4%).[18]

Associated factors of geriatric depression

Similar to the current study findings, Thomas et al also identified employment status as an associated factor for geriatric depression.[17] Study conducted by Anil and Chacko contradicted this finding.[18] This contradiction in findings might be due to the methodological issues (differences in sampling method, sample size and setting). As identified by current study, many other studies also identified income as a factor associated with depression.[8,10,15-17]

Similar to current study, family support was found to be associated with depression, by Thomas et al.[17] This points to the need of frequent contact between the residents of old age homes and their relatives (at least through phone). Leisure time activities are identified as a protective factor against geriatric depression, by many studies.[9,13,17] This highlights the need for implementing regular leisure activities for senior citizens. It must also be noted that, many reviewed studies failed to study leisure activity as a factor associated with geriatric depression.

Another factor that has a practical implication is the sleep quality.[9] This study shows light that measures to improve sleep quality not just improves sleep, but also prevents depression.

Though the present study couldn't find any association between age and geriatric depression, reviewed studies have reported that depression is more prevalent among advanced ages.[8,9,11,13,15-18] Few studies have reported higher preponderance among females for depression, which the present study failed to identify.[7,9,11,13,15-18]

Though education was identified as a factor associated with geriatric depression by previous studies, studies by Joseph et al, and Anil and Chacko along with the current study findings couldn't identify this association.[10,13,15-18] The supportive studies were conducted at old age homes, while others were community-based studies.[10,13,15-18]

Most studies, supported the present study findings by stating no significant association between marital status and geriatric depression.[10,11,18] Meanwhile, few studies contradicted this finding.[15,16] In contrary to the present study, Banerjee et al, Sahu et al, Vincent et al, Thilak et al and Thomas et al reported presence of physical illness as a predictor of geriatric depression.[9,10,15-17] Meanwhile, Karini et al supported the current study findings.[11]

CONCLUSION

The present study showed that almost, a quarter of institutionalised senior citizens had depression. This highlights the need for regular screening by health workers, especially those working at grassroot levels. Mental health of institutionalised senior citizens needs to be given utmost importance and measures need to be taken to prevent depression among them. The current study also identified factors (sleep, leisure activities and contact with relatives) associated with geriatric depression. More research needs to be conducted on the influence of modifiable risk factors on geriatric depression among institutionalised individuals, based on which policy reforms can be initiated.

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REFERENCES

1. Elderly in India. National statistical office, Ministry of Statistics and Programme implementation, Government of India, New Delhi; 2021.
2. Akbar S, Tiwari SC, Tripathi RK, Pandey NM, Kumar A. Prevalence of psychiatric illness among residents of old age homes in Northern India. J Neurosci Rural Pract. 2018;09(02):193-6.
3. Sree Sudha TY, Naga Saritha C, Ramana Rao GV, S. Krishna Sasanka KSB, Thangaraju P. A comparative study on psychiatric morbidity among elderly population residing in old-age homes and community. J Fam Med Prim Care. 2022;11(1):53.
4. Zenebe Y, Akele B, W/Selassie M, Necho M. Prevalence and determinants of depression among old age: a systematic review and meta-analysis. Ann Gen Psychiatr. 2021;20(1).
5. Suresh Kumar PN, Anish PK, George B. Risk factors for suicide in elderly in comparison to younger age groups. Indian J Psychiatr. 2015;57(3):249.
6. Kvalbein-Olsen LC, Aakhus E, Haavet OR, Werner EL. Unrecognised depression among older people: a cross-sectional study from Norwegian general practice. BJGP Open. 2023;7(1):BJGPO.2022.0135.
7. Pilania M, Yadav V, Bairwa M, Behera P, Gupta SD, Khurana H, et al. Prevalence of depression among the elderly (60 years and above) population in India, 1997-2016: a systematic review and meta-analysis. BMC Public Health. 2019;19(1).
8. Cai H, Jin Y, Liu R, Zhang Q, Su Z, Ungvari GS, et al. Global prevalence of depression in older adults: a systematic review and meta-analysis of epidemiological surveys. Asian J Psychiatr. 2023;80(103417):103417.
9. Banerjee A, Zalavadiya D, Sheth A, Rangoonwala M, Mitra A, Kadri A. A comparative study of depression and associated risk factors among elderly inmates of old age homes and community of Rajkot: A Gujarati version of the geriatric depression scale-short form (GDS-G). Indian J Community Med. 2017;42(4):204-8.
10. Sahu D, Sahoo S, Kaur V, Panda U, Nath B, Parija P. Depression and quality of life among elderly: Comparative cross-sectional study between elderly in community and old age homes in Eastern India. J Educ Health Promot. 2022;11(1):301.
11. Karini D, Lotheti SK, Bhimarasetty DM. A comparative study of depression among the elderly living in old age homes and community in Visakhapatnam, India. Int J Community Med Public Health. 2019;6:1482-7.
12. Roopa GB, Eshwar MK, Ramu K, DivyaDarshan BP. Geriatric depression among elderly people residing in old age homes. RGUHS J Nurs Sci. 2018;8(2):67-72.
13. Joseph S, Kumar S, Abraham A. Prevalence of depression amongst the elderly population in old age homes of Mangalore city. J Fam Med Prim Care. 2021;10(5):1868.
14. Kavana GV, Sparshadeep EM, Shiyas MA, Sheeba DKP. Assessment of depression and social support in elderly subjects residing in an old age home: A pilot study. J Clin Diagn Res. 2018;12(12):10-4.
15. Vincent V, Shanmugam J, Duraisamy S, Loganathan P, Ganeshkumar V, Balakrishnan V. Prevalence of depression among elderly population in rural South India. Int J Community Med Public Health. 2020;7:2377-80.
16. Thilak SA, Sarada AK, Neloopant SA. Prevalence and factors associated with depression among the elderly in rural areas of Kannur, north Kerala, India-a cross sectional study. Int J Community Med Public Health. 2016;3:1986-91.
17. Thomas AM, Susan B, Kalliath JD, Cherian V, Rose BM, Kizhatil A, et al. Prevalence and correlates of geriatric depression in a rural community in Kerala, India. J Ideas Health. 2021;4(Special2):395-401.
18. Anil CS, Chacko AT. Psycho-social wellbeing of older persons in Kerala. Janasamkhya. 2021;38(1):44-60.

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