Original Article

Psycho-Social Morbidity and its Determinants among Geriatric Population in a Rural Field Practice Area: A Cross–Sectional Study

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How to cite this article: D. Sivakumar, S. Suganthi, P. Parthiban et. al. Psycho-Social Morbidity and its Determinants among Geriatric Population in a Rural Field Practice Area: A Cross–Sectional Study. Indian Journal of Public Health Research and Development / Vol. 16 No. 1, January-March 2025.

Abstract

Introduction: One in four older adults worldwide, suffer from mental health disorders such as depression, anxiety, and dementia, according to the WHO. Studies indicate high rates of depression, anxiety, and dementia among older adults, emphasizing the need for comprehensive healthcare strategies. Addressing psychosocial morbidities through early identification and intervention is crucial for improving the quality of life for elderly individuals in India. The objective of the present study is to study the prevalence and determinants of psychosocial morbidity in elderly patients in the geriatric clinic.

Methodology: This is a cross-sectional community based study conducted in a rural field practice area of Government Vellore Medical College, Vellore, Tamil Nadu, India. The study population constituted of individuals aged >60 years. The study used a sample size of 91. P value ≤ 0.05 was considered as the level of significance for the statistical tests. Depression and dementia were screened using standardized scales, and data analysis was performed using SPSS.

Results: About 39 (42.8%) were habituated to alcohol. 47 (51.65%) sometimes faced social maladjustment and 3 (3. 2%) always live with social maladjustments. 41[45.1%] reported anxiety. Dementia was diagnosed in 25.3% and 56% of the people reported depression according to a psychological assessment.

Conclusion: Early identification and intervention for mental health conditions, along with programs promoting social engagement and healthy lifestyles, are crucial in enhancing the quality of life for the growing elderly population.

Keywords: Psycho-social, Depression, Geriatric, Dementia, social security, social Maladjustment.

Introduction

The National Policy on Elderly Persons adopted by the Government of India in January 1999 defines an elderly person as a person aged 60 years or above. Life expectancy at birth also increased from 67.36 to 70.15 from 2011 to 2020[1,2]. The population

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Submission date: Jun 21, 2024 **Revision date:** July 27, 2024 **Published date: December 28, 2024:**

demographic is increasing due to better health control of communicable diseases, better treatment options for such diseases and better nutrition, resulting in longer life expectancy leads. According to the WHO, one in four older adults suffers from a mental health disorder, such as depression, anxiety and dementia. Nearly 17.13 million Indian elderly suffer from mental health problems in India[4]. The most common psychosocial problems include memory impairment, reduced intelligence, anxiety, depression, fixed attitude, addiction, loneliness, dissatisfaction with family, death of close people, job income, unpleasant thoughts dominated by negative feelings [3]. Psychiatric morbidity, which increases with age, is 4.66% more common in the geriatric group than in the non-geriatric group[4]. The prevalence of depression, the most common problem, is between 13 and 22%. Over 20% of adults over 60 years of age suffer from mental disorders, accounting for 6.6% of total disabilities in this age group[5].

Joshi PC et al. found that the prevalence of depression, the most common problem, is between 13 and 22 percent[17]. Due to urbanization and modernization, major changes occurred in family structure and values, as well as in the care and support of the elderly. Improved health care promises longevity, but social and economic conditions such as poverty, broken families and poor services for the elderly pose a social threat to them. They rely on their families as many would need assistance with activities of daily living. Bruce et al. found that 13.5% of nursing home patients suffered from severe depression[6]. Ritchie et al. found a lifetime prevalence of 26.5% and 30% of depression and anxiety disorders in geriatric patients [7]. Tiwari and Srivatsava conducted a study in the rural population in Uttar Pradesh and found that the prevalence of psychiatric disorders is higher in the older age group [42.21%] than in the non-geriatric population 3.97% [8]. In South Asia, the prevalence of dementia was 1.9% in 2005 and is expected to increase to 3.6 million by 2020 and 7.5 million by 2040[10]. According to several epidemiological studies, the prevalence of dementia in India ranges from 2/1000 to 35/1000 people [11,12]

Older adults are more likely to experience events such as bereavement or physical disability, which can impact emotional well-being and lead to poor mental health. Psychosocial morbidities also result from a lack of independence and autonomy. Social exclusion has far-reaching consequences of psychosocial morbidity that go beyond regular activities and access to resources and knowledge. Social exclusion is an important social determinant of health [9]. Furthermore, identifying psychological morbidity and treating it appropriately at its earliest stages shortens the duration of suffering and improves quality of life [5]. The objective of the present study is to study the prevalence and determinants of psychosocial morbidity in elderly patients in the geriatric clinic. Despite a high morbidity pattern among the elderly in India, very few and limited studies have been conducted in Indian states.

Methodology

This is a cross-sectional community based study conducted in a rural field practice area of Government Vellore Medical College, Vellore, Tamil Nadu, India. The study population constituted of individuals aged >60 years and residents of study area were participating in the study. Those who were sick, ill, not giving consent and those who could not complete the questions were excluded from study. The study was conducted over a 3-month period from March 2023 to May 2023. The study was carried out by interview using pre-tested, semi-structured questionnaire. The purpose of the study, along with informed consent and confidentiality, was explained to the participants.

Taking the prevalence of depression among the geriatric population as 40.7%[20], precision to be 11%. Using the formula $4pq/d^2$ the sample size was 77. The total sample size was taken as 91. House to house visits were conducted and a complete enumeration of elderly individual in selected area was done. Then, a sample was taken using systemic random sampling. P value ≤ 0.05 was considered as the level of significance for the statistical tests.

Depression and Dementia were screened using Geriatric Depression scale and Mini Mental state examination respectively[18,19]. The data was entered in MS EXCEL and analyzed using SPSS (16). Central tendency and dispersion were calculated for continuous variables and proportions were calculated for categorical variables. Univariate

analysis using chi-square tests was conducted to check for association.

Results

Total of 91 respondents were interviewed. Among the respondents, 51 (56%) were male and 40 (44%) were female. Among the respondents, 24 (26.3%) were semi-skilled and 20 (21.9%) were semi-professional. The majority of 44 [48.3%] were between 60 and 70 years old and 8 [8.8%] were >80 years old. The results are shown in the table below.

Table 1: Sociodemographics

GENDER	**N (%)**
Male	51(56%)
Female	40(44%)
PREVIOUS OCCUPATION	
Unemployed	17(18.60)
Unskilled	10(10.9)
Semi-skilled	24(26.3)
Skilled	3(3.3)
Clerical	4(4.4)
Farmer	11(12.1)
Semi-professional	20(21.9)
Professional	2(2.2)
AGE in Years	
60-70	44(48.3)
70-80	39(42.8)
>80	8(8.8)

Most of the respondents, 90 (98.9%) lived with family and 1 (1.1%) lived alone. About 39 (42.8%) were habituated to alcohol. Of the respondents, 47 (51.65%) sometimes faced social maladjustment and 3 (3. 2%) always live with social maladjustments. The results are shown in the table below.

Table 2: Social Determinants and Social Morbidity

SOCIAL MALADJUSTMENTS	**N (%)**
Always	3(3.2)
Sometimes	47(51.6)
Never	10(10.5)
SOCIAL LIVING	
Living with spouse/children	90(98.9)
Alone	1(1.1)

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SUPPORT FROM FAMILY	
Yes	74(81.3)
No	17(18.7)
LEISURE ACTIVITY	
Gardening	35(38.5)
Physical interaction	25(27.5)
TV watching	31(34.1)
HABITS	
Alcoholic	39(42.8)
Tobacco abuse	38(41.7)
Nose stuffing	2(2.2)
LOCAL GROUP	
Formal group	39(42.8)
Informal group	46(50.5)
Nil	6(6.6)

The most common comorbidities are high blood pressure, followed by asthma, diabetes mellitus and ENT problems. Among the respondents, 34 [33.3] had hypertension, 23 (25.35%) had asthma, 1 (1.1%]) had oral cancer and 1(1.1%) heart disease, 6 (6.6%) had no comorbidities. The results are shown in the table below.

Table 3: Comorbidity

COMORBIDITY	**N(%)**
Asthma	23(25.3)
ENT related issues	1(1.1)
Diabetes mellitus	11(12.1)
kidney disease	4(4.4)
Eye disease	9(9.9)
Heart disease	1(1.1)
Hypertension	34(33.3)
Oral cancer	1(1.1)
None	6(6.6)

Of the respondents, 41[45.1%] reported anxiety. The results are shown in the table below. Dementia was diagnosed in 25.3% of those surveyed according to a psychological assessment, 3 (3.3%) self-reported it, 56% of the people reported depression according to a psychological assessment, and 32 (36.6%) of the people admitted them self is suffering from depression. Dementia and depression were assessed using a mini-mental state examination and a geriatric depression scale, respectively[18,19]. The results are shown in the table below

Table 4: Psychiatric Morbidity

Age Related	Self Reported	Psychological Assessment
Anxiety	41(45.1)	-
Dementia	3(3.3)	23(25.3)
Depression	32(36.4)	51(56.04)

Approximately 10 (10.9%) visit a health facility weekly. Majority 75 (82.4%) spent Rs 1,000-5,000 per month on medical expenses. About 16 (17.6%) had health facilities within a radius of more than 10 km. 43 (47.2%) received a state pension.

Table 5: Health Seeking Behaviour

FREQUENCY OF VISITS	N (%)
Weekly/Frequent visits	17(18.7)
Monthly	38(41.8)
Yearly	8(8.8)
Rarely	28(30.8)
MEDICAL EXPENDITURE	
Government supply	2(2.2)
1000-5000	75(82.4)
>5000	4(4.4)
No expenditure	4(4.4)
MEDICAL SERVICES AVAILABILITY	
5-10km	20(21.9)
<5 km	56(61.5)
>10 km	16(17.6)
GOVERNMENT SCHEME	
Pension	43(47.2)
No pension	48(52.7)

Associations have been found between psychiatric morbidity and gender, family type. The results are shown in the table below. From the above analysis, it appears that dementia is more common in the nuclear family, although this is not statistically significant. Depression and dementia are more common in women, but are not statistically significant. People living with children are more likely to suffer from dementia, but this is not statistically significant.

Dementia and its Association with Selected Social Factors:

FAMILY	INTERPRETATION		P VALUE
	DEMENTIA	NORMAL	
THREE GENERATION FAMILY	2(28.6%)	5(71.4%)	0.62
JOINT FAMILY	3(14.3%)	18(85.7%)	
NUCLEAR FAMILY /LIVING ALONE	18(29.5%)	44(70.5%)	
GENDER			
FEMALE	11(27.5%)	29(72.5%)	0.665
MALE	12(23.5%)	39(76.5%)	
LIVING WITH CHILDREN			
NO	10(35.7%)	18(64.3%)	0.458
YES	13(20.9%)	49(79.0%)	
NO CHILDREN	0	1(100%)	

Depression and its Association With Gender

GENDER	INTERPRETATION		P VALUE
	DEPRESSED	NORMAL	
FEMALE	23(57.5%)	17(42.5%)	0.31
MALE	28(54.9%)	23(45.1%)	

Discussion

In my study, 67 (73.6%) individuals had significant psychosocial morbidity. Dementia was diagnosed in 25.3% of those surveyed, 56% of the people had depression according to a psychological assessment .Similar to our results from Nirmalya manna et al. Kolkata, reported 72 (69.3%)[14] and

K. Seby et al. (2011) reported different degrees in around 30(14.9%)[15]. In my study, 51 (56.1%) people were diagnosed with depression. In contrast, a cross-sectional study in Kamrup by Ankumoni et al. over 83 (27.6%)[13] and k.seby et al. reported 33 (16.3%)[15]. In my study, most of them were habituated to alcohol, 39 (42.8%). In contrast to our study, the cross-sectional study in Kamrupbyankumoni et al. 73 (24.3%)[13] and k.seby et al. reported 6.4%[15]. In contrast to our study, a cross-sectional study in Kamrup by Ankumoni et al. found that 68 (22.7%) lived with spouse and 103 (34.3%) lived with spouse and children[13]. Similar to our study, a cross-sectional study in Calcutta by Nirmalya Manna et al. reported diabetes 12 (11.54%) and in contrast to our study, hypertension 50 (40.08%) and ischemic heart disease 20 (19.23%) as well as COPD 28 (26.92%) [14]and in contrast to our study Purnasinghk et al. (2012) reported DM 87 (29.0%), HTN 163 (54.3%), vision loss 63 (21%) and hearing loss 14 (4.2%)[21]

Conclusion

This study highlights the significant prevalence of psychological morbidity among the elderly population. Nearly half of the studied elderly population exhibited co-occurring condition like depression, anxiety and dementia. Social factors like maladjustment, lack of social security and Unhealthy habits such as alcohol and tobacco use further compounds these challenges. These findings empathize the critical need for comprehensive health care approaches that address both the psychological and social well being of older adults. Early identification and intervention for mental health conditions, along with programs promoting social engagement and healthy lifestyles, are crucial in enhancing the quality of life for the growing elderly population.

Conflict of interest: None Declared

Funding: No funding sources

Ethical Approval: The study was approved by Institutional Ethics Committee

EC Reg. No. ECR/825 /Inst./TN /2023 /RR 83, Dated 12/01/2023

References

1. Statistics WHO. Life expectancy at birth. WHO:2019 (cited 10.01.2024) available from https://www.statista.com/statistics/271334/life-expectancy-in-india/
2. Statistics WHO. Ageing and health. WHO:2015 (cited 10.01.2024) available from https://data.who.int/countries/356
3. Srivastava K. Gupta SC, Kaushal SK, Chaturvedi M; Morbidity profile of elderly a cross sectional study of urban Agra, India J Community Health., 2010; 22(1):51-5
4. Oralingaiah P, Bettappa P, Kashyap S. prevalence of psychosocial problems among elderly in urban population of Mysore city, Karnataka, India. Indian journal psychosocial medicine 2012;34(4):360-364
5. Sucheta Singh et al psychological health and its determinants among elderly in prayagraj 2022;13(3) :309-314
6. Tiwari SC, Pandey NM, Singh I. Mental health problems among inhabitants of old age homes: A preliminary study. Indianjournel Psychiatry2012;54(2):145-148
7. Itchie K et al prevalence at DSM IV psychiatric disorder in French elderly population. British Journal psychiatry 2004;vol.184(4):147-52
8. Tiwari SC Geropsychiatric morbidity in rural UP, Indian journal psychiatry 1998;40(3) :266-273
9. Bruce ML et al Major depression in elderly home health care patients Am journal psychiatry 2002;vol.159(2);1367-74
10. Ferri CP etal Global prevalence of dementia: A Delphi consensus study ; Lancet 2005;vol.366(3):2112-7
11. Rajkumar S etal prevalence of Dementia in a rural setting : A report from India . International journal of geriatric psychiatry 1997;vol72(6):702-706.
12. Lee J etal Prevalence of dementia in India: National and state estimates from a nationwide study. Alzheimers Dement. 2023 Jul;19(7):2898-2912.
13. Ankumonisaikiaetal Prevalence of mental health, morbidity and its association with psychiatric illness among urban elderly. International journal of science and research 2021, vol 10[6]; 575-79.
14. Nirmalya Manna etal : An epidemiological study on assessment of dementia and general health pattern among geriatric population in the rural field practice area of MC and hospital, Kolkata. National journal of physiology, pharmacy and pharmacology.2023,vol13[4],820-825.

15. K. Sebyetal: Prevalence of psychiatric and physical morbidity in an urban geriatric population. April-June 2011 Volume 53(2):121-127

16. Rajesh Kumar Seth. Morbidity pattern and psychosocial problems of the elderly in a rural population of Uttar Pradesh, India: a cross sectional study, International journal of research in medical sciences. 2017 Jan; vol5 (1):162-65

17. Joshi PC etal Health issues of the elderly; Seminar2000. vol488(2); 40-43

18. CGA Toolkit. Mini-Mental State Examination (MMSE) [Internet]. Ottawa (ON): CGA Toolkit; [cited 29 May 2024]. Available from: https://cgatoolkit.ca/Uploads/ContentDocuments/MMSE.pdf

19. University of Missouri Geriatric Education Center. Geriatric Depression Scale (Short Form) [Internet]. Columbia (MO): University of Missouri; [cited 29 May 2024]. Available from: https://geriatrictoolkit.missouri.edu/ cog/GDS_SHORT_FORM.PDF

20. Sahni B, Bala K, Kumar T, Narangyal A. Prevalence and determinants of geriatric depression in North India: A cross-sectional study. J Family Med Prim Care. 2020 May 31; 9(5):2332-2336. Doi: 10.4103/jfmpc.jfmpc_357_20.

21. Purnasinshketal; psychiatric morbidity in geriatric population in old age homes and community; practice study Indian journal of psychosocial medicine Jan – March 2012 VOL 3(4); 39-43.