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Psychological Health and Its Determinants among Elderlies of Prayagraj

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Abstract

Background: The definition of health by World Health Organization acknowledges mental wellbeing as one of the important component of healthy life. At present around 17.13 million older adults are suffering from mental health problems in India. Hence, in order to determine the current scenario of psychological health issues faced by people in their old age and the factors associated with various problems in Prayagraj, this study was taken up.

Objective: To determine prevalence of psychological health Illness and their associated factors in elderly population.

Material and Method: This cross-sectional community based study was done on 483 elderly population of Prayagraj. The data was collected using interview method by pretested structured questionaire. The psychological problems were accessed using validated GHQ-H scale. The data was analysed on epi info version 7 and chi-square test was used at p value < 0.05 significance.

Results: The prevalence of definitive Psychiatric morbidity among the elderly population was found at 13.7%. Gender, marital status, education status and certain physical morbidities like oro-dental problems, hearing impairment and respiratory problems were found to be significantly associated with psychological health in elderly age group.

Conclusions: psychological illness among the elderly population in the community is rather prevalent which goes unnoticed and it was found to be significantly associated with Female gender, Living without spouse, and having some physical morbidities.

Keywords: Elderly population, Definitive psychiatric morbidity, determinants.

Introduction

The demographic transition and population projections of India indicates that the growth rate of the Indian elderly population (60 years and above) is comparatively faster than other countries of the World. The life expectancy at birth has also increased from 62.5 years to 66.8 years from 2000 to 2011.[1] Rapid advances in medicine, public health, nutrition and sanitation have led to large cohorts advancing to old age accounting for more than 100 million, and projections predict a figure of 324 million, i.e., 20% of the total population, by 2050.[2] The working population who supports the dependents such as elderlies in the population is decreasing while the old people themselves are experiencing continued degeneration and deterioration of both physical and mental health. As a result, these individuals are experiencing feelings of a lack of wellbeing.

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'National Policy on Older Persons' adopted by the government of India in January, 1999 defines 'senior citizen' or 'elderly' as a person who is of age 60 years or above.[3] In most of the Indian studies, the cut-off age for the elderly is found to be 60 years as compared to 65 years in international studies. Traditionally, the primary source of care and material support for the elderly individuals has been the family but due to urbanization and modernization there have been major transformations in the family's structure and values. As a result of socio-demographic changes, older adults at times become weak due to health-related problems including psychosocial ones. According to WHO data, one in four older adults experiences some mental disorder, such as depression, anxiety, or dementia globally. At present around 17.13 million older adults are suffering from mental health problems in India[1].

Psychosocial problems are needed to be probed and addressed because they are of vital importance especially in old age as it is accompanied by feelings of loneliness, concerns of death, unpleasant thoughts and it is also dominated by negative feelings. Furthermore, detection of psychological morbidity and its appropriate management at earlier stage shortens the duration of suffering and improve the overall quality of life. Viewing it, to assess mental health among the elderly, exploring the psychological problems is of utmost importance. Hence, in order to determine the current scenario of psychological health issues faced by people in their old age and the factors associated with various problems in Prayagraj district, this study was conducted.

Material and Method

Study Design: Cross-Sectional community based study.

Study Setting: Urban and rural areas of Prayagraj district.

Study Duration: The study was conducted from March 2020 to October 2021.

Study Population: All elderly population (age 60 years and above) of Prayagraj district.

Study Unit: Individual of age 60 years and above

Inclusion Criteria

- Elderly population of age 60 and above.
- Residents of the study area.
- Subjects willing to participate in the study

Exclusion Criteria

- Those who refused to participate in the study or those who were unable to answer the assessment questionnaire due to serious hearing problems or severe communication disorder.
- Guests visiting the household.

Objective: To determine prevalence of psychological health Illness and their associated factors in elderly population.

Sample Size Calculation: The sample size was calculated to be 436 considering the prevalence as 3.4% from previous study [3], then adding 10% of non-response error, the sample size was estimated to be 480.

Sampling Technique: Multistage Random sampling was done.

Total sample size was divided into rural and urban proportionately. So, it was decided to select 109 elderly subjects in urban and 327 in rural areas for the same depending upon the average population and composition of Prayagraj district. It was estimated that elderly population from a total four randomly selected urban colonies (from two randomly selected urban wards) and six randomly selected villages of randomly selected blocks will complete the sample size.

Data collection: After obtaining clearance from institutional ethical committee, the randomly selected villages and colonies were visited and individuals aged 60 years and above were approached. First individual in each village or ward was selected randomly. House-to-house visit was done and complete enumeration of elderly individual in the selected areas was done. A total of 121 elderly from urban and 362 from rural were enumerated. The sampled population was further evaluated for exclusion criteria. The participants were briefed about the study and its purpose of doing. After informed consent and assuring full confidentiality to the study participants, interview was carried out using pre-structured, coded questionnaires.

Tools Used

- GHQ-H[4]: a standardized Hindi version of Goldberg's General Health Questionaire containing 60 items was used for evaluating the overall psychological status in elderly population. The questionaire has been proved to be helpful in the identification of patients with minor psychiatric illnesses and also serves the epidemiologists as a screening device. A score of 1 has to be given for any item present in column 3rd and 4th and the sum total is to be calculated.
- Chi square test was used at significance to established the relation between various cofactors of psychological illness.
- Epi info version 7 for analysis of data.

Results

A total of 483 subjects (rural and urban) were enrolled in the study. The socio-demographic profile of study participants is shown in table 1. There were 288 male and 195 female participants in the study. Out of total 483 participants, 405 elderly were living with spouse (married) and 78 were not living with spouse (unmarried/ divorced/ widow-widower) and there were 71.8% of the study participants living in a joint family. Around half i.e., 56.5% of the study participants were formally educated. In the present study, based on employment, two groups were created. Retired, homemakers and those who were not working due to their ill health or disability were included in non-employed group. Three hundred and ninety four participants were non-employed and remaining 89 participants were employed. Majority of the elderly participants were found in the lower-lower socioeconomic class and very few (20.4%) were in the upper class of Revised Modified BG Prasad classification.

Table 1: Sociodemographic Profile of the Elderly Participants

		N=483	%
Age	60-74 years	407	84.2
	75 years and above	76	15.8
Gender	Male	288	59.6
	Female	195	40.4
Religion	Hindu	402	83.2
	Muslim	75	15.5
	Christians	6	1.3
Marital Status	Married	405	83.8
	Unmarried/ divorced/widow-widower	78	16.2
Type of family	Nuclear family	136	28.2
	Joint family	347	71.8
Educational status	Formally educated	273	56.5
	Not formally educated	210	43.4
Employment status	Employed	89	18.4
	Non-employed	394	81.5
Socioeconomic Status	Upper	99	20.4
	Upper Middle	39	8
	Lower Middle	41	8.4
	Upper Lower	95	19.6
	Lower-Lower	209	43.2

In the sample population of 483, 66 (13.7%) were found to have definitive psychiatric morbidity. The presence of psychiatric morbidity was 18% among females and 10.4% among male participants and this was found to be significant. The prevalence of psychiatric morbidity was found to be low among the married individuals (10.6%) compared to those who were unmarried/ divorced/ widow-widower (29.48%). Definitive psychiatric morbidity was found to be more prevalent among individuals who did not have formal education (17.61%) compared to those having formal education (10.62%). Psychiatric morbidity was present among 12.35% of employed and 13.95% of non- employed elderly participants. The prevalence of psychiatric morbidity was 14.14%, 10.25%, 12.19%, 24.21% and 9.56% among the socioeconomic class I, II, III, IV and V. Gender, marital status, presence or absence of formal education was found to have association with definitive psychiatric morbidity among the elderly participants. This association was found to be statistically significant at p value < 0.05. using chi-square test. As depicted in table 3 most of the elderly were found to be suffering from eye problems i.e., 124 (25.6%) were having refractory errors in their eyes, 47 (9.7%) were found to have cataract and there were 94 (19.5%) individuals having both cataract with refractory errors. There were 205 elderlies with oro-dental problems and 56 were having mild or moderate form of hearing impairment. In the study, 99 individuals were found to have hypertension and 92 (19%) were having Diabetes. There were 44 (9.1%) elderly participants found to have respiratory illnesses. Physical morbidities such as hearing impairment, respiratory problems, and oro-dental problems were found to

have statistically proven significant association with definitive psychiatric morbidity.

Table 2: Psychological Illness and Its Determinants

		N= 483	Definitive Psychiatric morbidity (%)	p - value
Age	60-74 years	407	54 (13.2)	0.5568
	75 years and above	76	12 (15.7)	
Gender	Male	288	30 (10.4)	**0.01155**
	Female	195	36 (18.5)	
Marital Status	Married	405	43 (10.6)	**0.001174**
	Unmarried/ divorced/ widow-widower	78	23 (29.48)	
Type of family	Joint family	136	43 (12.3)	0.193348
	Nuclear family	347	23 (16.9)	
Educational status	Formally educated	273	29 (10.62)	**0.026474**
	Not formally educated	210	37 (17.61)	
Employment status	Employed	89	11 (12.35)	0.69146
	Non employed	394	55 (13.95)	
Socioeconomic Status	Class I	99	14 (14.14)	0.789053
	Class II	39	4 (10.25)	
	Class III	41	5 (12.19)	
	Class IV	95	23 (24.21)	
	Class V	209	20 (9.56)	

Table 3: Relation between Psychological Illness and Physical Illnesses

Physical Illness	N=483	Definitive Psychiatric Morbidity		p - value
		Present	Absent	
Visual impairment	265 (54.9%)	38	14.33	0.633927
Hearing Impairment	56 (11.5)	14	25	**0.008624**
Oro-Dental problems	205 (42.4)	39	19.02	**0.00323**
Hypertension	99 (20.4)	12	12.12	0.616071
Diabetes	92 (19)	14	15.21	0.629843
Respiratory problems	44 (9.1)	13	29.54	**0.001295**

Discussion

In the present study, 84.2% of the elderlies were in the age group of 60-75 years and remaining 15.8% were in the age group of 75 years and above. Similar age distribution pattern was observed by the study done by **Seby et al.**[5] and **Manaf et al.** [6] where majority i.e., 66.3% and 78.3% of the study participants were in the age group of 60-74 years. In the present study, 16.2% were divorced/unmarried/widow/widower. Study by **Datta et al.**[7], **Suwamanee et al.**[8] and **Bandla et al**.[9] on elderly population has revealed comparatively higher percentage of widowed individuals. This discrepancy could be due to the reason that in our study, very few were in the age-group of 75 years and above.

In the present study, 71.8% of the elderly were living in a joint family and remaining 28.2% were living in a nuclear family. In terms of educational status of the population studied, 43.4% elderlies were not formally educated whereas 56.5% of the elderlies were found to be formally educated. Other studies by **Patel et al.**[10] done on elderlies in Jodhpur revealed 53.6% of the participants to be illiterate. The percentage of literacy quoted by **Seth et al.**[11] in their study was as low as 12.5% in the elderly population of Uttar Pradesh. In our study, majority (81.5%) of the participants were non-employed and only 18.4% were engaged in some kind of employment. The percentage of non-employed participants in other studies done on elderlies by **Seth et al.**[11] and **Manhas et al.**[12] was reported to be 50.7% and 61.6% respectively. In the present study, 62.8% of the study participants were from class IV and class IV socioeconomic status. In the present study, more than half i.e., 54.9% of the participants were found to be suffering from visual impairment. The findings are similar to the study by **Seby et al.**[5] where the most common physical illness among elderlies was visual impairment (41.5%). In our study, Oro-dental problems was prevalent in 42.4% of the sample population and 9.1% were found to be suffering from respiratory illness. The prevalence of Hypertension and Diabetes in our study was found to be at 20.4% and 19% respectively. Similarly, **George et al.**[13] and **Das et al.**[14] in their study reported prevalence hypertension at 21.3% and 27.2% and diabetes was reported at 17.4% and 21.7% respectively.

In our study, when assessed through GHQ-H scale, 66 out of 483 participants scored > 17 and hence the prevalence of psychiatric morbidity was established at **13.7**%. Other studies done on elderly have found

the prevalence of psychological illnesses to be much higher than the present study. **Suwanmanee et al.**[8] conducted a study among geriatric population of Thailand using GHQ-28 scale and found the prevalence of poor mental health at 20.8%. In other studies, the prevalence of psychiatric morbidity reported by **Nair et al.**[15], **Singh et al.**[16], **Bandla et al.**[9], and **Seby et al.**[5] was 33.9%, 34.2%, 59.2% and 26.7% respectively. The reason for comparatively low prevalence of psychiatric morbidity among elderly population in our study may be because other studies included cognitive impairment including dementia in psychiatric illnesses which were assessed using different scales and might have led to increased prevalence of psychiatric illness. Other reasons could be due to socio-demographic picture of the present study where majority of the participants were from rural areas, lower socioeconomic class, and male participants outnumbering female participants. Moreover, the study was done during the pandemic when school going children were attending online classes at home, employed ones were following work from home, son and daughter living far in foreign countries came home. Staying with family members throughout day made elderly person feel more emotionally secure compared to other days when school children were busy with their school routine, others were busy in workplace when whole day elderly person used to spend time alone feeling more lonely.

The prevalence of psychiatric morbidity was found to be significantly higher among the females (18.5%) compared to males (10.4%). This association of psychiatric morbidity with the female gender was found to be statistically significant. This could be due to lack of social support, financial constraints, more family responsibilities and delay in help seeking behavior. Datta et al.[7] also revealed similar findings where higher percentage of females (42.9%) compared to male (30.1%) were found to have mental illness. Psychiatric morbidity was found more prevalent among those living in a nuclear family (16.9%). Those participants who were either widow, unmarried or divorced were found to higher prevalence of definitive psychiatric morbidity (29.48%) compared to the married ones (10.6%). Similarly other studies [17, 18, 19] have found marital status to be one of the determinant for poor psychological health in old age. In the present study, 10.7% of formally educated individuals were found to be suffering from definitive psychiatric morbidity whereas 17.1% of those who were not formally educated were suffering from definitive psychiatric morbidity. This difference in prevalence among these two groups was found to statistically significant. Similarly, Pilania et al.[18] and Sengupta et al.[17] had reported higher prevalence of one of the psychiatric problem i.e., depression among those who were illiterate. Bandla et al.[9] and Nagoor et al.[20] also reported in their study that psychiatric morbidity was more prevalent among illiterates compared to those who were literate. In our study, psychiatric morbidity was seen more among individuals having some or the other physical illness. Physical illnesses such as oro-dental problems, hearing impairment and respiratory problems were found to have significant association (at p value= 0.00323, 0.008624, 0.001295 respectively) with psychiatric morbidities in old age. This could be due to the fact that inconvenience and despair due to physical illness brings elderly more prone for stress, fear of being burdened and emotionally unhappy. Similarly Pruchno et al.[21], Suwanmanee et al.[8] and Garatachea et al.[22] reported that elderlies who had good physical health or those with no chronic illness were found to have good mental health.

Conclusion

The present study focused on psychological aspects of the health in old age. It can be stated that psychological illness among the elderly population in the community is rather prevalent and it goes unnoticed most of the time. Various factors like being married and staying with spouse, having formal education and living in a joint family were found to be protective factors against psychiatric morbidities. Female gender and physical illnesses such as respiratory problems, hearing impairment and oro-dental problems were found to have significant association with definitive psychiatric morbidity in old age.

Recommendations

Awareness about mental health should be enhanced in the community by involving ASHA, voluntary health workers, and Camps by mental health professionals. Mass media, newspaper and radio can also be used. Early detection at community level can be done by increasing credibility for health care system among community. Awareness about geriatric health clinic in medical colleges and its utilization should be made.

Ethical Clearance: received from Institutional Ethics Committee of Moti Lal Nehru Medical College,

Prayagraj.

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Conflicts of Interest- Nil

References

1. Tiwari SC, Pandey NM, Singh I. Mental health problems among inhabitants of old age homes: A preliminary study. Indian J Psychiatry 2012; 54(2):144–148.
2. Phoebe SL, Irudaya RS. An aging India: perspectives, prospects and policies. J Aging Soc Policy. 2003;15(2-3):1-9.
3. Boralingaiah P, Bettappa P, Kashyap S. Prevalence of Psycho-Social Problems among Elderly in Urban Population of Mysore City, Karnataka, India. Indian J Psychol Med. 2012; 34(4):360–364.
4. Gautam S, Nijhawan M, Kamal P. Standardisation of Hindi version of Goldbergs's General health Questionnaire. Indian J. Psychiat.1987;29 (1):63-66.
5. Seby K, Chaudhury S, Chakraborty R. Prevalence of psychiatric and physical morbidity in an urban geriatric population. Indian J Psychiatry. 2011;53:121-7.
6. Manaf MRA, Mustafa M, Rahman MRA, Yusof KH, Abd Aziz NA. Factors Influencing the Prevalence of Mental Health Problems among Malay Elderly Residing in a Rural Community: A Cross-Sectional Study. PLoS ONE.2016;11(6):e0156937.
7. Datta PP, Gangopadhyay N, Sengupta. Association of psychological morbidity with socio-demographic characteristics among elderly: A cross-sectional study from Eastern India. Int J Med Public Health. 2013;3(2):94-99.
8. Suwanmanee S, Nanthamongkolchai S, Munsawaengsub C, Taechaboonsermsak P. Factors Influencing the Mental Health of the Elderly in Songkhla, Thailand. J Med Assoc Thai. 2012;95(6):8-15.
9. Bandla S, Gopalan S, Nappinai NR, Mathumathi S, Sivachidambaram B. A study of psychiatric morbidity in geriatric population living in old age home and community. AP J Psychol Med. 2016;17(2):90-4.
10. Patel V. Mental health in low- and middle-income countries. Br Med Bull. 2007;81–82(1):81–96.
11. Seth RK. Morbidity pattern and psychosocial problems of elderly in a rural population of Uttar Pradesh, India: a cross-sectional study. Int J Res Med Sci. 2016;5(1):162.
12. Manhas RS, Manhas GS, Manhas A, Thappa JR, Akhter R, Sharma R. Psychiatric Morbidity among Geriatric Patients Attending Psychiatric OPD of Tertiary Care Hospital. JMSCR. 2019;7(6):491-497.
13. George LS, Deshpande S, Krishna Kumar MK, Patil RS. Morbidity pattern and its sociodemographic determinants among elderly population of Raichur district, Karnataka, India. J Family Med Prim Care. 2017;6(2):340–344.
14. Das S, Arun P, Rohilla R, Parashar K, Roy A. Anxiety and depression in the elderly due to COVID-19 pandemic: a pilot study. Middle East Curr Psychiatry. 2021;28(1):67.
15. Nair SS, Raghunath P, Nair SS. Prevalence of Psychiatric Disorders among the Rural Geriatric Population: A Pilot Study in Karnataka, India. Cent Asian J Glob Health. 2015;4(1):138.
16. Singh AP, Kumar KL, Reddy CMPK. Psychiatric Morbidity in Geriatric Population in Old Age Homes and Community: A Comparative Study. Indian J Psychol Med. 2012;34(1):39–43.
17. Sengupta P, Benjamin AI. Prevalence of depression and associated risk factors among the elderly in urban and rural field practice areas of a tertiary care institution in Ludhiana. Indian J Public Health. 2015;59(1):3-8.
18. Pilania M, Bairwa M, Khurana H, Kumar N. Prevalence and predictors of depression in community-dwelling elderly in rural Haryana, India. Indian J Community Med 2017; 42(1):13-18.
19. Alam MN, Singh SP, Gupta VS, Bhawnani D, Soni GP. A study on mental health status and its determinants in elderly people of Raipur city, Chhattisgarh, India. Int J Community Med Public Health. 2016;3(11):2982-2986.
20. Nagoor K, Darivemula SB, Reddy N B, Patan SK, Deepthi C S, Chittooru CS. Prevalence of mental illness and their association with sociodemographic factors in the rural geriatric population in Chittoor, Andhra Pradesh, India: A community-based study. J Edu Health Promot. 2018;7:165.
21. Pruchno RA, Wilson-Genderson M, Heid AR. Multiple Chronic Condition Combinations and Depression in Community-Dwelling Older Adults. J Gerontol A Biol Sci Med Sci. 2016; 71(7):910-915.
22. Garatachea N, Molinero O, Martinez-Garcia R, Jimenez-Jimenez R, Gonzalez-Gallego J, Marquez S. Feelings of well-being in elderly people: Relationship to physical activity and physical function. Arch Gerontol Geriatr. 2009;48(3):306-312.