ORIGINAL RESEARCH ARTICLE

ARE ELDERLY PEOPLE LIVING IN OLD-AGE HOME, LESS DEPRESSED THAN THOSE OF COMMUNITY? FINDINGS FROM A COMPARATIVE STUDY

H Ghimire[1], PK Pokharel[2], PM Shyangwa[2], DD Baral[2], A Aryal[3] and AK Mishra[4]

[1]Department of Community Medicine and Public Health, Chitwan Medical College (P) Ltd, Bharatpur-10, Chitwan, Nepal.
[2]BP Koirala Institute of Health Sciences, Dharan;
[3]CARE Nepal, Kathmandu;
[4]International Organization for Migration, Damak

Correspondence: *Harishchandra Ghimire, Department of Community Medicine and Public Health, Chitwan Medical College, Bharatpur,*
e-mail: insightmetoo@yahoo.com

ABSTRACT

The increasing elderly populations are prone to depression. Its magnitude should be identified to address the problem. The objective of the study was to compare the prevalence of depression between elderly people living in old-age home and community setting. The old-age home of Devghat, Chitwan, Nepal and its adjacent communities were selected as study area. The duration of cross-sectional study was Jun to Sep 2007. Total sample size was 110. Elders living in old-age home (n=55) were compared with elders from community (n=55). A standard Geriatric Depression Scale and socio-demographic interview schedule was employed for data collection. Depression was dependent variable whereas age, sex, caste, religion, marital status, spousal status, education, pension, number of children, monthly family income, social support, family size, and domicile were independent variables. Prevalence rate of depression was 52.73% in old-age home and 25.45% in community. Females had higher prevalence rate of depression than male in old-age home (93.1% vs. 6.9%), whereas in the community group, it was higher in males (64.3% vs. 35.7%). Logistic regression analysis revealed non-social support (P=0.017), illiteracy (P=0.035), female sex (P=0.036) and low income (P=0.049) as the predictors of depression. Results of this relatively small-sized study resembled with other larger studies. The high prevalence rate of depression among the elderly in old-age homes and community lowers their productivity and places burden to family and society. For this reason, concerned authorities should timely address depression in elderly people.

Keywords: *Geriatric Depression Scale, community, depression, old-age home.*

INTRODUCTION

Ageing population has been increasing in Nepal by 6.5% per annum.[1] Ageing population will be a huge problem in the days to come. Several mental disorders are more common among elderly people. Depression is one of them. In Nepal, official data on prevalence of depression among elderly either in old-age home or in the community setting are not available. Few research reports have found diverse figures on prevalence of depression among elderly people.

According to the World Health Report 1999, an estimated 10% of the burden from non-communicable diseases (NCDs) in 1998 was accounted for by neuropsychiatric conditions in low and middle-income countries. Five of the ten leading causes of disability worldwide are accounted for mental disorders (unipolar depression, schizophrenia, manic-depressive disorder, alcoholism, and obsessive-compulsive disorder). This situation will soon apply to developing countries including South East Asian Region member countries like Nepal.[2]

Depression in elders lowers the productivity and increases health care financial burden to the family members. Finding out depression prevalence rate among elders living in old age home and community provides the information about the impetus we should give on mental health care. For this reason, it was imperative to study the prevalence of depression among elderly people in Nepal.

MATERIALS AND METHODS

Study design: This was a population-based cross-sectional study. A face-to-face interview was conducted with the respondents of old-age home and community dwellers in two weeks period.

Sample size: All elderly people living in old-age homes of Devghat were considered as study population, and control group members were selected by purposive sampling from

surrounding communities. There were 55 elders staying in old-age home; 55 elders were recruited in the control group from the surrounding communities. Thus the total sample size of the study was 110 elderly people.

Inclusion and exclusion criteria: Elderly people who had been staying for at least two weeks in old-age home and respective community households were considered eligible. Those suffering from severe mental and physical illness e. g., psychosis, dementia, hearing impairment, and dumbness were excluded. Elderly persons living alone at home in community setting were also excluded.

Tools used: A standard Geriatric Depression Scale (GDS)[3] duly translated into local language was employed for data collection. The GDS is a comprehensive scale that consists of 30 questions to measure depression and takes 10-15 minutes to complete. It includes items on lowered affect, inactivity, irritability, withdrawal, distressing thoughts, and negative outlook on past, present, and future. The questionnaire included two single yes/no questions measuring the condition within past 2 weeks.

Data analyzing procedure: Collected data were entered in Microsoft Excel and analyzed by SPSS 10.0. The association between dependent and independent variables was analyzed. Chi-square test was done for categorical variables and Student t test was used for numerical variable to find out the level of significance.

RESULTS

Each group consisted of 55 elders. There was significant difference in age group of elderly people living in community and old-age home (p=0.03). Mean age of elders in old-age home was 76.02 years (SD 7.9) and mean age of elders in the community group was 72.73 (SD 8.1). Prevalence rate of depression was higher in elderly people living in old-age home than in their counterparts in community (table 1).

Table 1: Prevalence of depression among elderly people living in old-age home and at home in community (n=110)

Domicile	Depression	
	Male	**Female**
Community	14 (25.45%)	41 (74.55%)
Old-age home	29 (52.73%)	26 (47.27%)
Total	43 (39.09%)	67 (60.91%)

In old-age home, prevalence rate of depression was higher among females than males. However, among those living in the community, males had higher prevalence rate of depression than female counterparts (table 2).

Table 2: Prevalence of depression among elderly people by their sex and domicile (n=110).

Domicile Pattern	Depression	Sex	
		Male	**Female**
Community Setting	Present	9 (64.3%)	5 (35.7%)
	Absent	34 (82.9%)	7 (17.1%)
Old-age home	Present	2 (6.9%)	27 (93.1%)
	Absent	10 (38.5%)	16 (61.5%)

Univariate analysis showed following observations (Table 3). Low-income group had significantly high prevalence of depression than high-income group (p=0.001). Depression was significantly more prevalent in females than males (p< 0.001). By caste, Brahmin/Chhetry elders had significantly higher rate of depression than Janjati/Dalit people (p=0.021). Elders living with their spouse had significantly lower depression scores than those without spouse (p=0.03). Depression was also significantly higher among non-pensioners than pension-getting elders (p=0.046); illiterates than literate elders (p<0.001); and elders without social support than those with social support (p<0.001).

Table 3: Association of depression with socio-demographic variables (n=110)

Variables	Category	Depression			Odds ratio	P value (at 95% CI)
		Yes	No	%		
Age Group	60 – 69 years	8	19	29.63	-	0.431
	70 – 79 years	25	33	43.10		
	≥ 80 years	10	15	40.00		
Number of children	≤ 3	29	32	47.54	0.441	0.067
	>3	14	35	28.57		
Monthly income	≤ 1500 NRs.	28	21	57.14	0.245	0.001*
	> 1500 NRs.	15	46	24.59		
Sex	Female	32	23	58.18	0.180	<0.001*
	Male	11	44	20.00		
Caste	Brahmin/Chhetry	39	47	45.35	4.149	0.021*
	Janajati/Dalit	4	20	16.67		
Religion	Hindu	42	58	42.00	6.515	0.102
	Others	1	9	10.00		
Marital status	Married	16	38	29.63	0.452	0.072
	Unm/Wid/Div/Sep#	27	29	48.21		
Spousal status	No	31	33	48.44	0.376	0.030*
	Yes	12	34	26.09		
Pension	No	42	56	42.86	0.121	0.046*
	Yes	1	11	8.33		
Education	Literate	7	37	15.91	0.158	<0.001*
	Illiterate	36	30	54.55		
Social support	No	19	6	76.00	0.124	<0.001*
	Yes	24	61	28.24		
Residence	Home	14	41	55	3.266	0.006*
	Old-age home	29	26	55		
Occupation	Agriculture	34	54	38.64	0.909	1
	Others	9	13	40.91		
Family size	≤ 6 members	7	23	23.33	1.278	0.932
	> 6 members	7	18	28.00		
Family type	Extended	13	36	26.53	0.59	0.978
	Joint	1	5	16.67		

Unm/Wid/Div/Sep = Unmarried/Widow(er)/Divorced/Separated.

The sign (*) indicates significant value.

The mean family size of elders of the community group was 3.53 (SD7.11). The average number of family members in Nepal is 5.44 according to Central Bureau of Statistics, Nepal, 2001. Family size was not considered for elders of the old-age home. Income group was categorised into two– monthly income less than Nepalese Rs. 1500.00 and more than 1500.00. It was categorised based on per capita income of Nepal i.e., $ 239.48 per year.[4] The mean monthly income was significantly higher in families of the community

elders (11,105.45± 14,757.66) than elders of old-age homes (1,777.5±1,287.8, p=0.006).

DISCUSSION

The old-age home in Devghat a "central part of Nepal" was selected purposively as residing elders came from across the country. The control group was from Bharatpur municipality, Chitwan which also consisted of families that migrated from across the country. Thus, the samples were representative and reliable. To our knowledge, there is lack of other studies with similar objectives and study groups in Nepal.

Throughout the world, research works studying depression prevalence in elderly have different findings. In a study of 1500 sample size, Chong et al[5] have reported a depression prevalence rate from of 21.2% in Taiwanese community. They used Geriatric Mental State Schedule-Automated Geriatric Examination for Computerized Assisted Taxonomy and the Life Events and Difficulties Schedule. Our result is based on GDS scoring and has found a prevalence rate of 25.45% in community setting. Our findings regarding increased prevalence of depression in females, widows, and low literacy resemble that of Chong et al. However, Kulaksizoglu et al[6] have reported a GDS score of 14 or more in 16% (n=163) in their study comprising 1067 elders, whose mean age was 74.8 years. Schulman et al7 found prevalence of depression ranging from 10% to 38% among older community residents. In context of Nepal, depression prevalence of 53.2% has been reported by Khattri and Nepal8 in a 100 sample size, hospital-based study. This prevalence rate is equal to our finding in elders of old-age homes. However, one communitybased study conducted in Chitwan by Shrestha9 in 1998 has reported a very high prevalence of 63.5%. Noticeably, this study consisted of 96 individuals aged 55 or more and employed a different tool CES-D (Centre for Epidemiologic Studies Depression Scale).

Al-Shammari et al[10] have reported 39% prevalence of depression among elderly people by using the GDS out of 7970 samples. The mean age was 68.8 years (SD7.7). Similar to our findings, this study also reported significant relationship of depression prevalence with various personal characteristics such as poor education (p=0.001), divorced or widowed status (p=0.001), old age and being a female (p=0.001).

One objective of our study was to compare the prevalence rate of depression among elderly people living in old-age home and community group living at their own home. The null hypothesis was rejected with the significantly high rate depression prevalence in old-age home as compared to community setting. However, a small sample size and significant age different between the groups may caution against generalization of the findings. Future studies should consider a larger and more suitably matched groups.

CONCLUSION

Depression is more common among elders in old-age home than in community. Depression is more prevalent among elders with poor social support, low income, having no spouse, non pensioner, low educational status, Brahmin/Chhetry caste. Also, it is more prevalent among elderly women than men. Addressing these issues may contribute to improve the quality of life for the elders and decrease burden on family, society, and the nation.

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