

Depression among Elderly Residing in Old-age Homes in Devghat, Nepal

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ABSTRACT

Introduction: Depression among elderly is a common phenomenon that is increasing in an alarming rate in the recent years. Depression among elderly leads to various physical and psychological problems and consequently poor quality of life.

Objective: This study was aimed at assessing prevalence of depression among elderly residing in old-age homes in Devghat, Tanahun, Nepal.

Methods: A cross sectional analytical study design was adopted to assess depression among elderly residing in old-age homes of Devghat town in Tanahun district of Nepal. Non-probability enumeration sampling technique was used to collect the data. The validated Nepali translation of Geriatric Depression Scale-15 was used to assess depression. Collected data were entered in SPSS version 22 and analyzed by using Chi-square test.

Results: Out of 155 respondents, 45.8% had mild depression followed by 36.8% who had moderate depression. A statistically significant association was found between level of depression and marital status, educational status, having asthma and habit of smoking.

Conclusions: This study showed that prevalence of depression in old-age homes was very high. This necessitates provision of regular screening and adequate support and initiatives from concerned authorities to uplift the mental status of these elderly people so that it does not affect their overall health and quality of life.

Keyword: Depression; elderly; old-age homes.

INTRODUCTION

Globally, the growth in elderly population is exponential. According to WHO, the proportion of the world's elderly population is estimated to double between 2015 to 2050 AD with predominance in low- and middle- income countries.¹ This shift in demography is expected to pose significant challenges for social and health services with substantial increase in chronic illness, physical disabilities and mental health problems such as depression.¹⁻² A hospital-based study conducted in Jammu, India to

assess psychiatric morbidities among elderly have shown that 53.9% elderly patients were suffering from depression.³ Another similar study conducted in old-age homes in North India among 306 elderly revealed that 43.1% had some psychiatric illness with depression being the most common (53.7%).⁴

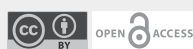
The government of Nepal has declared the elderly citizens as people of age 60 years or more.⁵ Like other developing countries, population ageing is a major public health concern in Nepal too.⁶

Elderly people generally live with and are looked after by their children specially sons in Nepali culture. However, the number of old-age homes has been increasing in recent times with more number of elderly residing in them than ever before as a result of migration of children to urban cities and foreign countries as well as nucleation of families.

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According to a study done in 2015, there were around 1,500 elderly residing in 70 organizations registered across the country.⁷ Furthermore, previous studies conducted in Nepal have shown high rates of depression among elderly residing in old-age homes with prevalence ranging from 57.8% to 80.7%.^{6,8,9} A study done in Kathmandu valley have revealed depression among elderly living in old-age homes to be nearly double (74.6%) as compared to those living in community (41.8%).¹⁰

The number of elderly living in old-age homes is ever increasing and very less consideration is given about their mental health status. Thus, this study was undertaken to assess depression among elderly living in old-age homes in Devghat, Tanahun, Nepal.

METHODS

A cross-sectional analytical research design was adopted to measure the prevalence of depression among elderly living in old-age homes of Devghat, Tanahun.

Data was collected from elderly residing in three Old-age homes namely Devghat Area Development Committee Briddashram, Shree Galeshwor Ashram and Devghat NRN Briddhashram which had 38, 75 and 52 elderly respectively at the time of data collection. Data collection period was from 18th January to 1st February 2021.

Three major old-age homes were selected purposively. Census enumeration technique was used. All the elderly living in the premises and under direct supervision of these three old-age homes were approached to be included in this study.

This study included all elderly (both male and female) aged 60 years and above, who had been living for at least 6 months in these old-age homes and were willing to participate. We excluded the elderly who were unable to speak, hear, and could not complete the interview process. Out of 165 elderly, 10 were excluded. Hence, 155 respondents who fulfilled the inclusion criteria were included in the study.

Data was collected by a face-to-face interview schedule, using semi-structured questionnaire. The tool consisted of three parts: 1) Part I: Questions related to socio-demographic information prepared by the researchers themselves 2) Part II: Questions related to associated factors of depression prepared by the researchers themselves. We used a structured questionnaire to assess the following variables: socio-demographic variables (age, sex, ethnicity, marital status, type of family, literacy status, financial support, previous occupation) and associated factors (history of medical illness, length of stay, living with spouse, worries, and habits). 3) Part III: Geriatric Depression Scale Short Form 15 developed by Sheikh & Yesavage (1986)¹¹ was used by the researcher to measure the depression. In this study, depression refers to the score ≥ 5 obtained by the elderly as assessed through the Geriatric Depression Scale Short Form 15 (GDS SF=15). A previous study carried out in Nepal has already proved that GDS was a reliable tool to screen depression in the Nepalese patients which showed Cronbach's Alpha= 0.79.¹²

Ethical approval was taken from Shree Medical and Technical College Institutional Review Committee (Ref: SMTC-IRC-20201230-05). Permission was also taken from the concerned authorities of old-age homes of Devghat, Tanahun. Each respondent was allowed to have a voluntary choice for participation. Written informed consent was obtained from each respondent by clarifying the purpose of the study prior to data collection. Respondents' dignity was maintained by giving right to reject or discontinue from the research study at any time. Confidentiality of the information was maintained by not disclosing the information and using the information solely for the research purpose.

The collected data was checked, reviewed, and organized for clarity, accuracy and completeness. Then all the collected data was entered in MS. excel, analyzed in SPSS (Statistical Package for the Social Sciences) version 22 and was interpreted by using descriptive analysis (percentage, mean and standard

deviation) and inferential statistics (chi-square test) to find out association. Statistical significance was set at a P value < 0.05.

RESULTS

Sociodemographic Characteristics of the Respondents

Table 1 shows that out of 155 respondents, most (39.3%) of the respondents were in the age group of 70 to 79 years, followed closely by age group of 80 to 89 years (32.3%). Mean age was 78.21 with standard deviation of 8.22. More than half (56.1%) of the respondents were females. Regarding ethnicity, three fourth (74.9%) of the respondents were Brahmin/Chhetri. With regard to marital status, most (63.9%) of the respondents were widowed. Slightly more than three fourth were illiterate (77.4%) and had no financial support from their families (76.1%).

Medical history, length of stay, emotional health and habits

Table 2 illustrates the distribution of respondents regarding medical history, length of stay, emotional health and habits. Regarding the history of chronic illness 127(81.9%) respondents had a history of chronic illness. Among them, most (28.4%) of the respondents had hypertension followed by asthma (21.9%) and arthritis/joint pain (16.8%). Regarding the duration of stay, nearly half (47.1%) of the respondents were staying since less than 60 months. Little more than half (56.7%) of the respondents were worried about lack of social relations. Respondents with habit of smoking and chewing tobacco were 56.4% and 43.6% respectively while none of them had habit of alcoholism.

Table 1: Distribution of sociodemographic characteristics of respondents (n=155).

Characteristics	Category	Frequency(%)
Age group (in years)	60 to 69	33(21.3)
	70 to 79	61(39.3)
	80 to 89	50(32.3)
	90 to 99	11(7.1)
Mean: 78.21; Standard deviation: 8.22		
Sex	Female	87(56.1)
	Male	68(43.9)
Ethnicity	Janjati	27(17.4)
	Brahmin/Chhetri	116(74.9)
	Others(Thakuri, Sanyasi)	12(7.7)
Marital status	Unmarried	19(12.2)
	Married	37(23.9)
	Widow/widower	99(63.9)
Educational status	Literate	35(22.6)
	Illiterate	120(77.4)
Financial support from family	Yes	37(23.9)
	No	118(76.1)

Table 2: Distribution of Respondents regarding medical history, length of stay, emotional health and habits.

Associated Factors	Category	Frequency(%)
History of medical illness	Yes	127(81.9)
	No	28(18.1)
*If Yes, (n=127)	Diabetes	24(15.5)
	Asthma	55(43.31)
	Hypertension	44(28.4)
	Cardiac Disease	16(10.3)
	Arthritis/ Joint pain	26(16.8)
Length of Stay	Less than 60 months	73(47.1)
	60 to 120 months	64(41.3)
	Above 120 months	18(11.6)
Worries	Lack of social relation	98(56.7)
	Dissatisfaction with the environment of old-age home	12(6.9)
	Lack of favorite activities	63(36.4)
*Habits	Chewing tobacco	34(43.6)
	Smoking	44(56.4)

*Answer by multiple response

Distribution of respondents on Geriatric Depression Scale:

Table 3: Distribution of respondents on Geriatric Depression Scale.

Scale questions	Yes	No
Are you basically satisfied with your life?	98(63.2)	57(36.8)
Have you dropped many of your activities and interests?	83(53.5)	72(46.5)
Do you feel that your life is empty?	74(47.7)	81(52.3)
Do you often get bored?	78(50.3)	77(49.7)
Are you in good spirits most of the time?	104(67.1)	51(32.9)
Are you afraid that something bad is going to happen to you?	28(18.1)	127(81.9)
Do you feel happy most of the time?	92(59.4)	63(40.6)
Do you often feel helpless?	76(49)	79(51)
Do you prefer to stay at home, rather than going out and doing new things?	73(47.1)	82(52.9)
Do you feel you have more problems with memory than most?	63(40.6)	92(59.4)
Do you think it is wonderful to be alive?	91(58.7)	64(41.3)
Do you feel pretty worthless the way you are now?	57(36.8)	98(63.2)
Do you feel full of energy?	50(32.3)	105(67.7)
Do you feel that your situation is hopeless?	66(42.6)	89(57.4)
Do you think that most people are better off than you are?	82(52.9)	73(47.1)

Table 4: Distribution of Respondents according to severity of depression.

Level of Depression	Frequency	Percentage
Normal	27	17.4
Mild	71	45.8
Moderate	57	36.8

Level of depression among elderly:

Table 4 shows the level of depression among elderly. Out of total respondents, 71(45.8%) had mild depression, 57(36.8%) had moderate depression, 27(17.4%) had no depression (Normal), while none of them had severe depression. From this data, we can say that the prevalence of depression was 82.6% among the elderly living in old-age homes.

Association between level of depression and socio-demographic characteristics:

There was statistically significant association between level of depression and marital status with p value 0.00001. However, there was no statistical

significant association between level of depression and other sociodemographic factors such as age, sex, ethnicity, type of family, educational status, and financial support from family.

Likewise, there was statistically significant association between level of depression and having asthma ($p=0.004$), habit of smoking ($p=0.0017$). Whereas, there was no association between level of depression and history of chronic illness, having diabetes, having hypertension, having heart disease, having arthritis/back pain, length of stay, worries about lack of social relations, worries about dissatisfaction with environment and worries about lack of favorite activities.

Table 5: Association between level of depression and sociodemographic variables and other factors.

Variables	Categories	n	No depression n(%)	Depression n(%)	Chi Square	p value
Age (years)	60-79	94	16(17.0)	78(83.0)	$\chi^2=0.026$ df=1 NS	0.87
	80-99	61	11(18.0)	50(82.0)		
Sex	Male	87	12(13.8)	75(86.2)	$\chi^2=1.81$ df=1 NS	0.18
	Female	68	15(22.1)	53(77.9)		
Ethnicity	Brahmin/Chhetri	116	18(15.5)	98(84.5)	$\chi^2=1.16$ df=1 NS	0.28
	Non Brahmin/Chhetri	39	9(23.1)	30(76.9)		
Type of family	Nuclear	49	6(12.2)	43(87.8)	$\chi^2=1.33$ df=1 NS	0.25
	Joint/ extended	106	21(19.8)	85(80.2)		

Marital status	Married	37	16(43.2)	21(56.8)	$\chi^2=30.3$ df=2 S	0.00001
	Unmarried	19	6(31.6)	13(68.4)		
	Widow/widower	99	5(5.1)	94(94.9)		
Educational status	Literate	35	5(14.3)	30(85.7)	$\chi^2=0.31$ df=1 S	0.5
	Illiterate	120	22(18.33)	98(81.67)		
Financial support from family	Yes	37	8(21.6)	29(78.4)	$\chi^2=0.6$ df=1 NS	0.4
	No	118	19(16.1)	99(83.9)		
History of medical illness	Yes	127	22(17.3)	105(82.7)	$\chi^2=0.005$ df=1 NS	0.95
	No	28	5(17.9)	23(82.1)		
If yes,						
	Diabetes	24	4(16.7)	20(83.3)	$\chi^2=0.006$ df=1 NS	0.94
	Asthma	55	23(41.8)	32(58.2)	$\chi^2=12.37$ df=1 S	0.0004
	Hypertension	44	8(18.2)	36(81.8)	$\chi^2=0.02$ df=1 NS	0.90
	Heart disease	16	4(25)	12(75)	$\chi^2=0.56$ df=1 NS	0.45
	Arthritis/Joint pain	26	6(23.1)	20(76.9)	$\chi^2=0.48$ df=1 NS	0.49
Length of stay	Less than 60 months	73	11(15.1)	62(84.9)	$\chi^2=1.63$ df=2 NS	0.44
	60-120 months	64	11(17.2)	53(82.8)		
	Above 120 months	18	5(27.8)	13(72.2)		
Worries about lack of social relations	Yes	98	17(17.3)	81(82.7)	$\chi^2=0.001$ df=1 NS	0.97
	No	57	10(17.5)	47(82.5)		
Worries about dissatisfaction with environment	Yes	12	4(33.3)	8(66.7)	$\chi^2=2.29$ df=1 NS	0.13
	No	143	23(16.1)	120(83.9)		

Worries about lack of favorite activities	Yes	63	14(22.2)	49(77.8)	$\chi^2=1.70$ df=1 NS	0.19
	No	92	13(14.1)	79(85.9)		
Habit of smoking	Yes	44	1(2.3)	43(97.7)	$\chi^2=9.80$ df=1 S	0.0017
	No	111	26(23.4)	85(76.6)		

DISCUSSION

The main aim of this study was to determine the prevalence and level of depression among elderly living in old-age homes. The course of data analysis of the present study showed that the prevalence of depression was alarmingly high i.e. 82.6%. The above finding was in line with that of old-age home based cross-sectional study done in Nepal (80%),⁴ and India(80%).¹⁰ A similar study in Egypt showed a prevalence of 75%.¹¹

However, the prevalence was almost half in the study conducted in Nepal by Kafle et al., (2017) which showed the prevalence of depression to be only 47.3%.¹² Likewise, lower prevalence has been revealed by study conducted in India by Goud and Nikhade (53.75%)¹³ and Kumar, Joseph & Abraham (47.8%).¹⁴ The differences in findings could be due to use of different measuring tools, time of data collection and variations in sample size.

In community settings, previous studies have shown the prevalence of 53.1% in Nepal,¹⁵ India (41.6%)¹⁶ and Ethiopia (45.9%).¹⁷ The higher prevalence in old-age homes may be due to loneliness, lack of family support and consequently lack of family care and affection.

The overall prevalence of depression in the present study was 82.6%, out of which 45.8% had mild depression which is similar to the finding of Chalise (2014) with 46.7% elderly having mild depression.⁵ In this study, none of the respondents had severe depression while study of Kafle et. al showed that 13.3% had severe depression.¹²

Present study showed a significant association between level of depression and marital status of respondents ($p=0.00001$). This finding is similar to that of the study by Subba et al ($p=0.019$),¹⁸ Sangma et al($p=0.0001$)¹⁹ and Thilak et al.($p=0.0001$).²⁰ Studies have shown that unmarried, divorced and widow/widower respondents are more likely to have depressive symptoms.²¹⁻²² This may be due to decreased social support and loneliness, caused by loss or absence of spouse, ultimately leads to depression. The above finding was contradicted by the study Muhammad et al., (2019) where there was no significant association between level of depression and marital status ($p=0.34$).²³

Present study showed a significant association between level of depression and history of asthma among respondents ($p=0.041$). Asthma is a chronic and debilitating condition which results in activity limitations and sleep problems and is also associated with poor quality of life in elderly in various previous studies.²⁷⁻²⁸ This finding is supported by the study conducted by Subramaniam et al. (2016) where significant association between level of depression and asthma was shown ($p=0.003$).²⁹ Whereas, this finding was contradicted by the study conducted by Bhuvnesh Kumar et al. in 2019 ($p=0.79$).³⁰

Present study showed a significant association between level of depression and habit of smoking among respondents ($p=0.002$). This is explainable by the fact that nicotine present in tobacco disrupts certain brain pathways that regulate mood. The interconnectedness between depression and smoking behavior are well established.³¹⁻³² This finding is supported by the study of Babatsikou et

al. ($p=0.010$),³³ whereas it was contradicted by the study of Muhammad et al. ($p=0.59$).²³

Elderly people are important to any society. With the skills, knowledge, experience and wisdom they possess, they can continue to contribute effectively to the society. Their role should not be looked down upon and consider them as a burden.

Since features of old age are more or less similar to that of depression, signs of depression may be mistaken as part of normal ageing thus diagnosis of depression may be missed or remain undiagnosed. Also, many old-age home related factors as well as personal factors may be contributing to this disorder. By regular screening of mental health problems among elderly residing in old age homes, we can detect depression early and initiate prompt interventions.

The current study has several limitations. First, this is a cross-sectional study so the temporal link between the various factors and depression cannot be measured as they are both examined at the same time. Also, data regarding physical mobility and

history of mental illness was not elicited from the respondents. Further, using purposive sampling technique to select the study area may have led to selection bias and limit the generalizability of the findings.

CONCLUSIONS

The current study showed that the prevalence of depression was extremely high. Among the depressed elderly, mild to moderate depression was identified while none of the respondents had severe depression. There was significant association between level of depression and marital status, educational status, having asthma, and habit of smoking. The findings of this study highlight the need for regular screening as well as provision of regular mental health services and support programs for the elderly living in the institutions to mitigate the negative effects of depression on their health as well as quality of life.

Conflict of Interest: None

NJHS

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