

# Physical and Mental Health Problems among Elderly in Selected Geriatric Homes of Makawanpur District

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## ABSTRACT

**Introduction:** With the advancing age, there comes increased risk of medical illness, psychiatric problems and use of medication, all of which may adversely impact on the physical and mental health status of the elderly. Studies investigating physical and mental health problems among elderly in geriatric homes are rare in Nepal.

**Objective:** The objective of this study was to assess the physical and mental health problems among elderly of selected geriatric homes of Makawanpur district.

**Methods:** A descriptive cross-sectional research design was carried out among the old people of three geriatric homes of Makawanpur district. Data was collected through structured interview schedule consisting of demographic, medical history and social information including geriatric depression scale and geriatric anxiety scale. Data was analyzed by using SPSS version 16 using descriptive statistics.

**Result:** A total of 82 respondents in the study, 90.2% of the respondents having physical symptoms. Among them pain (90.2%), weakness (26.6%), fatigue (18.3%) were the common symptoms. Furthermore, 76.8% of elderly were having physical health problems and more common problems were hypertension (55.55%), Diabetes (33.33%) and asthma (25.57%). Similarly 36.4% of the respondents had depression and 39% have anxiety.

**Conclusion:** Based on the findings, it is concluded that hypertension, diabetes and asthma were more common physical problems and depression, anxiety were more common mental health problems among old people. Therefore, provision of regular health check-up program for elders can enhance their physical as well as mental health so that complications can be prevented in time.

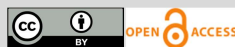
**Key Words:** Anxiety; depression; elderly; physical health problems.

## INTRODUCTION

Globally the elderly population is increasing rapidly. It is estimated that the proportion of the older adult will double from about 12% to 22% from 2015 to 2050.<sup>1</sup>

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As age increases, physical and mental health diminished. The ability to walk, think, and remember as well as vision and hearing is affected by disease conditions, injury and general age-related changes.<sup>2</sup>

Hypertension, arthritis, and diabetes were the most common chronic disease among elderly.<sup>3</sup>

The most commonly seen mental disorders among

the elderly population are dementia, depression, and anxiety disorders<sup>1</sup>. Mental illness increases the risk factor for developing physical comorbid conditions among elderly in middle-income country.<sup>4</sup>

Elderly people in Nepal mostly suffered from joint pain, GI problems, Hypertension, heart disease and diabetes.<sup>5</sup> Most of the elderly were suffered from chronic health problems such as COPD, hypertension, diabetes, cardiovascular disease as well as dementia.<sup>6</sup> Regarding the mental health issues, depression is the common problem faced by elderly in Nepal ranges from 53.1% to 80.7%<sup>7, 8, 9</sup> and as compared to residing in the community, it is found high among elderly residing in geriatric home i.e. 74.6%.<sup>8</sup> Poor family support, educational status, marital status, duration of stayed in geriatric homes<sup>10</sup> poor socio-economic status, large family size, non-availability of service provider for elderly<sup>11</sup> as well as smoking, tobacco chewing and consumption of alcohol<sup>12</sup> were the contributing factors of poor physical and mental health status among the old people.

Poor physical health status found strongly associated with lower life satisfaction.<sup>13</sup> Approximately 21% of elderly were dissatisfied with life because of their age related physical changes.<sup>14</sup> Similarly 48% of elderly felt that they are not happy in their life because of chronic physical problems and loneliness. Most of the

elderly felt they were neglected by the family and 36.2% felt they were burden to the family.<sup>15</sup> So the elderly people shifted to geriatric homes. These people are one of the high risk group for suffering from different physical and mental health problems. So the present study was conducted to assess the physical and mental health problems among elderly in the geriatric homes of Makawanpur district.

## METHODS

A Descriptive cross sectional research design was adopted among the old senior citizen residing in 3 geriatric homes of Makawanpur district. There are total 6 geriatric homes in Makawanpur District. Out of that, 3 geriatric homes were selected by using simple random sampling method. The total population of elderly and location of geriatric homes were traced with the help of focal person of the respective geriatric homes. Complete enumerative sampling technique was used and the total sample size was 82. Data was collected from 18<sup>th</sup> April 2023 to 10<sup>th</sup> May 2023 at Selected Geriatric homes of Makawanpur district. The response rate of the study was 100%. Both male and female old people aged  $\geq 60$  years currently residing in the geriatric home and who were willing to participate in the study were included in this study and those elderly who suffered from serious illness, deaf and who were unwilling to participate in the study were excluded.

A structured interview schedule consisting of demographic, medical history and Geriatric depression scale (GDS-15)<sup>16</sup>, where 1-5 denotes no depression, 6-10 is mild and 11-15 denotes severe depression. Geriatric anxiety scale (GAS-10)<sup>21</sup> was used to collect demographic, physical health problems information as well as depression and anxiety related data where Minimal anxiety (score <53), Mild anxiety (score 54-59), Moderate anxiety (score 60-65) and Severe Anxiety (score >66) accordingly from selected elderly peoples. For reliability the tool was translated to Nepali language and back translation to English language was done. Reliability of the instrument was maintained by pretesting of the Nepali version of instrument among 10 elderly residing in Sarbeshwor Geriatric home of Makawanpur necessary modification was done in the questions related to medical history of respondent.

Internal consistency was maintained by calculating the Cronbach's alpha value. The Cronbach's alpha coefficient for the Geriatric depression scale 0.80 Geriatric Anxiety Scale was 0.91.

Ethical approval was obtained from Institutional Review Committee (IRC-31/ 079-080), Madan Bhandari Academy of Health Sciences. Written approval letter for data collection was obtained from the in-charges of the respective elderly homes. Informed verbal and written consent were obtained from the respondents prior to data

collection. Confidentiality was maintained by not disclosing the information given by them. Anonymity was maintained by using coding system. In order to confirm the diagnosis of chronic illness and current use of medicine, the researcher checked the medical prescription and the medicine taken by the respondents.

The collected data was checked, reviewed and organized for accuracy, completeness and consistency. All collected data were analyzed by using SPSS-16 version. Frequency, mean and standard deviation were used to calculate the finding.

## RESULTS

Out of the 82 respondents, 42.7% of the respondents were in the group of 70-79 years. The overall mean and standard deviation of age in years was 77.72+8.250. Regarding the gender, 64.6 percent of the respondents were male. Majority of the respondents i.e. 95.1% were Hindu. Similarly 51.2 percent respondents were married. Concerning educational status, 57.3 percent respondents were illiterate. More than half (68.3%) of the respondents were financially dependence on others whereas only 51.2 percent of the respondents received senior citizen allowances. Likewise, 39% of elderly were in geriatric home for more than 2 years. The 40% elderly were in geriatric home because of no one to take care at home and 9.8% were abandoned by

child. Majority of the respondents i.e. 85.4% were not guilty to stay in geriatric home (Table 1).

**Table- 1: Demographic and socio-economic characteristics of the respondents**

n=82

Variables	Number	Percent
<b>Age in Years</b>		
60- 69	29	35.4
70-79	35	42.7
80 and above	18	22.0
Mean age±SD = 73.72±8.250		
<b>Gender</b>		
Female	29	35.4
Male	53	64.6
<b>Religion</b>		
Hindu	78	95.1
Buddhist	4	4.9
<b>Marital Status</b>		
Married	42	51.2
Widow/Widower	30	36.6
Unmarried	10	12.2
<b>Educational Status</b>		
Illiterate	47	57.3
Primary level	26	31.7
Secondary level	4	4.9
Certificate level	4	4.9
Above certificate level	1	1.2
<b>Financial Dependency on Others</b>	56	68.3
<b>Received of Senior Citizen Allowance</b>	42	51.2
<b>Duration of Stay in old age home</b>		
0-6 months	14	17.1
6-12 months	22	26.8
12- 24 months	14	17.1
More than 24 months	32	39.0
<b>Reason of Stay in old age home</b>		
No one to take care home	33	40.2
Child abroad	18	22.0
Home Conflict	13	15.9
Unwillingness to stay at home	10	12.2
abandoned by Child	8	9.8
<b>Guilt to stay at old age home</b>		
Yes	12	14.6
No	70	85.4

Most of the elderly (90.2%) having physical symptoms at present. Regarding the physical symptoms, 67.1%, 25.6% and 18.3% of elderly had the pain, weakness of extremities and fatigue respectively. Similarly 76.8% of elderly have chronic disease. Hypertension (55.55%), Diabetes (33.34%) are the common chronic disease found among the respondents. Majority of the respondents were under medication and more than half of the respondents were in antihypertensive therapy. (Table 2)

**Table 2: Respondents' information regarding physical health problems n=82**

Variables	Number	Percent
<b>Physical symptoms currently present</b>		
Yes	74	90.2
No	8	9.8
<b>Current Physical Symptoms<sup>#</sup></b>		
Pain	55	67.1
Weakness of Extremities	21	25.6
Fatigue	15	18.3
Poor Appetite	14	17.1
Shortness of Breath	12	14.6
Urinary Frequency	10	12.2
Dizziness	5	6.1
Constipation	5	6.1
<b>Chronic disease at present</b>	<b>63</b>	<b>76.8</b>
<b>Types of chronic disease (n=63)<sup>#</sup></b>		
Hypertension	35	55.55
Diabetes Mellitus	21	33.34
Asthma	18	28.57
Gout/Arthritis	8	12.69
COPD	5	7.93
Others <sup>*a</sup>	4	6.34
<b>Numbers of chronic disease</b>		
< 2 diseases	37	58.73
≥ 2 diseases	26	41.26
<b>Medicine use at Present</b>		
Yes	66	80.5
No	16	19.5
<b>If Yes (n=66)<sup>#</sup></b>		

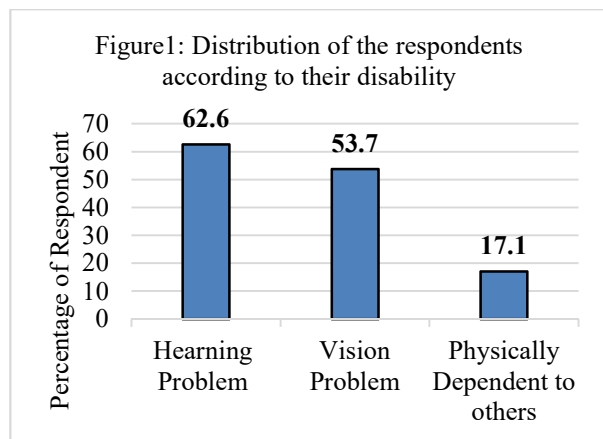
Anti-Hypertensive Drugs	34	53.96
Bronchodilators	22	34.92
Anti-Diabetic Drugs	21	33.33
Anti-Gastritis Drugs	14	22.22
NSAIDs	10	15.87
Others <sup>*b</sup>	2	3.12

# =Multiple Response

\*\*a= Hypothyroidism, Hyperlipidemia

\*\*b= Vitamin C, Vitamin B complex, Calcium, Thyroxin

Regarding the respondent’s disability, Majority of the respondents (62.6%) stated that they are having hearing problems, 53.7% have hearing problems and 17.1% of the respondents were physically dependent to others. (Figure 1)



Regarding the status of depression, 36.4% of the elderly have depressive symptoms. Among them, 32.92% have the symptoms of mild depression and 3.65% have indicative symptoms of depression. (Table 3)

**Table 3: Depression among respondents n=82**

Depression	Number	Percent	95% CI
Depression	30	36.4	0.25-0.47
No Depression	52	53.8	
<b>Status of Depression (n= 30)</b>			
Mild Depression	27	95	
Severe Depression	3	5	

Regarding the status of anxiety, Majority of the respondents (61%) have minimal anxiety whereas 8.5% of the respondents have severe anxiety. (Table 4)

**Table 4: anxiety among respondents n=82**

Anxiety Status	Number	Percent
Minimal anxiety	50	61.0
Mild anxiety	11	13.4
Moderate anxiety	14	17.1
Severe anxiety	7	8.5
<b>Total</b>	<b>82</b>	<b>100</b>

## DISCUSSION

The study was conducted to assess the physical and mental health problems among the elderly residing in old aged home of Makawanpur district. Data was obtained from 82 respondents (Om Briddhashram- 40, Divya Sewa Niketan- 30 and Aama Ghar- 12), yielding a 100% response rate. The elderly people including in the study were 60-95 years. The mean age was 73.72 and SD was 8.250. Proportion of male (64.6%) was greater than female (35.4%). Majority of the respondents (95.1%) followed Hinduism and most of the respondents i.e. 42.7% were literate.

More than half of the respondents (51.2%) had received senior citizen allowance and most of the respondents (68.3%) were economically dependent on others. Most of the respondents (40.2%) came to old aged home because of no one to take care of them and few of respondents i.e. 9.8% stated that they were abandoned by their children. Minority of the respondents i.e. only 14.6% felt regret of coming to geriatric home.

The current study has shown that majority of the respondents i.e. 90.2% were having some kind of physical problems and among them pain (67.81%), weakness (25.6%) and fatigue (18.3%) were more common. The finding is supported by the study conducted among the elderly people of pashupati Bridhhashram showed majority of the respondents have some sort of physical problems and common problem were pain (75%) followed by Weakness and fatigue.<sup>16</sup> The present study finding is contrary with the study conducted in Lalitpur District of Nepal which yielded that 79.7% were having physical problems and more common problems were headache, weakness, dizziness and back pain.<sup>17</sup>

The present study found that 76.8% of respondents have at least one chronic disease. Among them hypertension (55.55%) and Diabetes Mellitus (33.34%) were the more common. This finding is similar to other study<sup>18</sup> showed 81.8% of the elderly have chronic disease and hypertension, asthma and DM were more

common problems. Similarly the studies conducted by Sharma et al (2017)<sup>19</sup> and Kaphle et al. (2014)<sup>12</sup> showed that 84% and 84.1% of elderly suffered from chronic disease. Contrast to the present study finding, common health problems that old people suffered were musculoskeletal problems and hypertension<sup>19</sup>, arthritis/ osteoarthritis, cardiovascular disorders and gastrointestinal disorders<sup>12</sup>. The contrast on the findings may be because of sample size, study population, duration of the study, environmental as well as life style factors and high prevalence of chronic disease among the respondents.

The present study found that 62.6% of the respondents have hearing problems and 53.7% have vision problems. Similarly 83% of respondents were physically independent. The findings is in contrast with the community based study conducted in Egypt<sup>20</sup> showed that among the total respondents about 21.9% and 30.9% have vision problem and hearing problem respectively. Similarly 51.1% of the respondents were physically independent.

The present study found that 36.4% of elderly have depression. The present finding is in contrast with the finding of other studies.<sup>18,21</sup> The contrast on the finding may be because of sample size and study population as well as study area of the respondents.



The present study found that most of the respondents (61%) have minimal anxiety, 13.4% have mild anxiety, 17.1% have moderate anxiety and 8.5% of respondents have severe anxiety. The present study finding is supported by the study (2021) <sup>21</sup> and contrary to the findings of Barakat et. Al (2019) <sup>22</sup>.

## CONCLUSIONS

The study concluded that physical problems and mental problems are high among elderly. Regarding the physical problems, most of the elderly have pain, fatigue, weakness and gastritis.

Majority of the respondents were suffered from at least one chronic disease, among them hypertension and diabetes are more common among elderly. More than one third of elderly are having anxiety; some of them with anxiety symptoms are having in severe intensity. Similarly, depression is also prevalent in some elderly. So the Provision of regular health checkup program for elders can enhance their physical as well as mental health so that complications can be timely prevented.

**Conflict of interest:** None.

## FUNDING

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