

# Health Status of Senior Citizens Residing in Tarakeshwor Municipality, Kathmandu, Nepal

Uma Devi Ranjitkar<sup>1</sup>, Raj Devi Adhikari<sup>1</sup>, Ambika Chand<sup>2</sup>

<sup>1</sup>Associate Professor, <sup>2</sup>Lecturer of Maharajgunj Nursing Campus, Kathmandu, Nepal

Corresponding Author: Uma Devi Ranjitkar

## ABSTRACT

**Introduction:** Worldwide, in the 21<sup>st</sup> century, the numbers of senior citizens are increasing due to better facilities and advancement in medical science and technologies, increasing life expectancies, reducing morbidity rates, decreases in the fertility rate and the gradual ageing of the world's population increasing [1] thus, the morbidity patterns of senior citizens which required more health attention among them. Old age is associated with physical and mental health problems. Studies reported that non communicable diseases like cardiovascular diseases, chronic respiratory diseases, diabetes are common in old age adding the diseases burden in both developed and developing countries. [2] The objective of the study is to find out the health status of senior citizens.

**Methodology:** A descriptive cross sectional research design was used for conducting this research study among 462 senior citizens 70 and above, residing in Tarakeshwor Municipality, were included in a study by using non-probability purposive sampling technique. Health status problems of senior citizens was assessed by team members of faculty research from December 25<sup>th</sup> 2017 to March 23<sup>rd</sup> 2018 through individual interview method by using pretested structured interview guideline in Nepali version. Data was analyzed by using the descriptive and inferential statistics (chi-square test) data was analyzed by using SPSS version 16.

**Results:** Findings of this study shows that out of 462 senior citizens, majority (77.9%) of them belonged to age group of 70-80 years, with male female ratio is about 1:1 (50.2% male), 68.6% were married and living with spouse and 80.7% of them were unable to read and write. Regarding the source of income, 95.2% had other source of income including senior citizen allowance, and 58% of their needs were partially meet by the family income. Likewise, 69% of them lived with their spouses, among them 85.3% of them were supportive. Majority (82.7%) of them were independent, where as 14.3% were partially dependent and 3% were fully dependent with their family on performing basic daily living activities. Regarding physical health status, among 462 respondents, only 2.6% had no any physical problems where as 97.4% of them had some physical problems and almost all (90%) were suffering from at least four health problems. The most common physical health problems were musculoskeletal (87.4%), gastrointestinal (82.9%), dental (82.3%), eyes (68.4%), genitourinary (65.6%) and neurological problems (58.9%). Regarding psychological status, more than half (52.8%) of them had no depression where as 30.3%, 8.4% and 8.4% had mild, moderate and severe level of depression respectively. Study shows there is statistically significant association between physical health problems and ethnicity, educational status and

main source of income ( $P < 0.05$ ). Similarly, there is statistically significant association between psychological health problems with gender, ethnicity, marital status, type of family, educational status, current occupation, main source of income and economic status ( $P < 0.05$ ).

**Conclusion:** Based on these findings, this study concluded that almost all of the senior citizens were suffering from multiple physical problems. Nearly half of them had some levels of depression. Thus, Tarakeshwor Municipality needs to plan and implement regular proper health programme for maintaining physical health status and improving psychological health status of senior citizens.

**Keywords:** Senior Citizens, Physical Health Status, Psychological Health Status

## INTRODUCTION

World Health Organization (WHO) has defined 60 years as a cutoff point for initiation of old age. Many developing countries considered individuals of 60 years and most of the developed countries considered age 65 year and above as a cutoff time period for defining old age. [3,12,13] Ageing society means that people would be at an increased risk of developing debilitating diseases and functional disability and may be expected to suffer with the problems of dependency and disability leading to increased burden to the society. [4] The effective management of population of senior citizens is a major challenge to modern societies as they have major influence on a disability trend. Various biological, demographical, psychological and social factors contribute to mental health problems like depression and cognitive impairment among senior citizens. Factors like decreased functional independence, morbidities, chronic illness, loneliness, low education and poor economic condition result in poor mental health among senior citizens. [3] They are highly prone to mental morbidities due to aging of the brain, multiple physical health problems, cerebral pathology, decreasing family supports and economic dependency. [6]

## METHODOLOGY

A descriptive cross sectional research design was used for conducting this research study to assess the physical and psychological health status of senior citizens aged 70 and above residing in Tarakeshwor

Municipality. In this study, 462 senior citizens were included by using non-probability purposive sampling technique. Health status of senior citizens was assessed by using pretested semi-structured interview guideline in Nepali version from December 25<sup>th</sup> 2017 to March 23<sup>rd</sup> 2018 by team members of faculty research through individual interview method. Data was coded and entered into SPSS version 16. Data was analyzed by using descriptive statistics and inferential statistics. After getting formal approval from University Grants Commission as a faculty research grant, ethical approval was obtained from Institutional Review Board of Institute of Medicine, Kathmandu. After getting written permission from the authority of Tarakeshwor Municipality, data was collected after obtaining written permission from each senior citizen.

## RESULTS

Table 1 shows that out of 462 respondents, 77.9% of them were age group of 70-80 years; 50.2% were male and 49.8% were female; 52.8% belonged to Brahmin / Chhetri. Similarly, 92.4% were following Hinduism; 68.5% were married and livings with spouse and 28.4% were widows/widowers. Similarly, 85.3% of them were from joint family; 80.7% were not able to read and write and 94.1% were unemployed. Likewise, 95.2% had other source of income including senior citizen allowance and 65.8% were in the category of having income sufficient only for 6 months.

**TABLE 1: Socio-demographic Characteristics of the Respondents n=462**

Characteristics	Frequency	Percentage
<b>Age in years</b>		
70 – 80	360	77.9
81 and above	102	22.1
<b>Sex</b>		
Male	232	50.2
Female	230	49.8
<b>Ethnicity</b>		
Brahmin and Chhetri	244	52.8
Newar	180	39.0
Janajati	25	5.4
Mangolian	13	2.8
<b>Religion:</b>		
Hinduism	427	92.4
Buddhism	32	6.9
Christianity	3	0.6
<b>Marital status:</b>		
Married living with spouses	317	68.6
Widow/ Widower	145	31.4
<b>Type of family</b>		
Joint	395	85.5
Single	67	14.5
<b>Educational status:</b>		
Unable to read and write	373	80.7
Able to read and write	89	19.3
<b>Current occupation</b>		
Unemployed (unable/inactive)	435	94.1
Employed (business/agriculture/priest)	27	5.8
<b>Main source of income</b>		
Having other sources of income	440	95.2
Only depend on old age allowance	22	4.8
<b>Economic status</b>		
Sufficient for less than 6 months	52	11.3
Sufficient for 6 months	304	65.8
Sufficient for 1 years	106	22.9

**TABLE 2: Respondents' Habits and Status of Daily Living Activities n=462**

Variables	Frequency	Percentage
<b>Habits of the respondents</b>		
<b>Food Habit</b>		
Non – vegetarians	303	65.6
Vegetarians	159	34.4
<b>Smoking</b>		
Never smoke	220	47.6
Ever or currently smoking	242	52.4
<b>Alcohol</b>		
Never drink	251	54.3
Ever or currently drinking	211	45.7
<b>Status of Daily Living Activities</b>		
<b>Basic activities</b>		
Independents	382	82.7
Partially dependents	66	14.3
Dependent with others	14	3.0
<b>Moderate activities</b>		
<b>Walking in stairs</b>		
Walk independently	375	81.2
Walk with support	57	12.3
Unable to walk up and down	30	6.5

Table 2 shows that 65.6% of the respondents were from non-vegetarian group. Nearly half (47.6%) of them were never smoke and 52.4% were ever or currently smoking. Similarly, 54.3% of them were never drink and 45.7% were

currently or ever drink. Similarly, 82.7%, 14.3% and 3% of them were independent, partially dependent and fully dependent with their family members on performing basic daily living activities respectively. Regarding moderate activities, 81.2% could walk in stairs independently where as 12.3% and 6.5% only walk with support and unable to walk in stairs respectively.

**TABLE 3: Health Status of the Respondents n=462**

Health Status	Number	Percent
<b>Physical health status</b>		
No any health problem	12	2.6
Musculoskeletal problems*	404	87.4
Gastrointestinal problems*	383	82.9
Dental problems*	380	82.3
Eye problems*	316	68.4
Genitourinary problems*	303	65.6
Neurological problems*	272	58.9
Blood or cardiac problems*	220	47.6
Ear problems*	191	41.3
Respiratory problems*	179	38.7
Endocrine problems*	95	20.6
Skin problems*	36	7.8
<b>Perceived comorbid status (n=450)</b>		
4 or more than 4 health problems	405	90.0
1-3 health problems	45	10.0
<b>Psychological Health Status=</b>		
Absence of depression	244	52.8
Mild depression	140	30.3
Moderate depression	39	8.4
Severe depression	39	8.4

\*Multiple Responses, =Assessed by using 15 item short form Geriatric Depression Scale, Score 0-4=no depression, 5-8=mild depression, 9-11=moderate depression and 12-15=severe depression.

Table 3 depicts that out of 462 respondents, only 2.6% of the respondents reported that they had no any physical problems where as 97% (450) of them had some physical problems. Among 450 respondents, 90% were suffering from at least four health problems where as 10% of them were suffering from 3 or less. The most common health problems were musculoskeletal (87.4%), gastrointestinal (82.9%), dental (82.3%), eyes (68.4%), genitourinary (65.6%) and neurological problems (58.9%). The less common health problems were cardiovascular (47.6%), ears (41.3%), respiratory (38.7%), endocrine (20.6%) and skin problems (7.8%). Regarding psychological status, more than half (52.8%) of them had no depression where as 30.3%, 8.4% and 8.4% had mild, moderate and severe level of depression respectively.

**TABLE 4: Association of Physical Health Status with Socio-demographic Variables**

Variables	Presence of Health Problems		Chi Square value	P value
	Yes	No		
<b>Age in years</b>				
70 – 80	349	11	1.353	0.245
81 and above	101	1		
<b>Sex</b>				
Male	224	8	1.334	0.381
Female	226	4		
<b>Ethnicity</b>				
Brahmin and Chhetri	240	4	1.876	0.171
Others	210	8		
<b>Religion:</b>				
Hinduism	417	10	1.454	0.228
Others	33	2		
<b>Marital status:</b>				
Living with spouses	308	9	0.233	0.629
Single	142	3		
<b>Type of family</b>				
Joint / Extended	386	9	1.095	0.295
Single	64	3		
<b>Educational status:</b>				
Unable to read and write	365	7	3.866	0.049
Able to read and write	85	5		
<b>Current occupation</b>				
Unemployed (unable/inactive)	424	11	0.139	0.710
Employed (business/agriculture/priest)	26	1		
<b>Main source of income</b>				
Having other sources of income	411	6	22.714	0.000
Only depend on old age allowance	39	6		
<b>Economic status</b>			0.118	0.943
Sufficient for less than 6 months	51	1		
Sufficient for 6 months	296	8		
Sufficient for 1 years	103	3		

(\*P<0.05, significant at 95% CI)

**TABLE 5: Association of Psychological health Status and Socio-demographic Variables**

Variables	Psychological health status				Chi Square value	P value
	Absence of depression	Mild Depression	Moderate	Severe		
<b>Age in years</b>						
70 – 80	199	105	30	26	5.464	0.141
81 and above	45	35	9	13		
<b>Sex</b>						
Male	135	70	18	9	14.301	0.003
Female	109	70	21	30		
<b>Ethnicity</b>						
Brahmin & Chhetri	128	64	25	27	9.056	0.029
Others	116	76	14	12		
<b>Religion:</b>						
Hinduism	229	125	38	35	4.480	0.214
Others	15	15	1	4		
<b>Marital status:</b>						
Living with spouses	189	89	27	12	36.462	0.000
Single	55	51	12	27		
<b>Type of family</b>						
Joint / Extended	227	122	25	21	57.388	0.000
Single	17	18	14	18		
<b>Educational status:</b>						
Unable to read and write	184	122	32	34	9.138	0.028
Able to read and write	60	18	7	5		
<b>Current occupation</b>						
Unemployed (unable/inactive)	227	132	37	39	3.021	0.388
Employed (business/agriculture/priest)	17	8	2	0		
<b>Main source of income</b>						
Having other sources of income	229	125	35	28	18.870	0.000
Only depend on old age allowance	15	15	4	11		
<b>Economic status</b>						
Sufficient for less than 6 months	6	19	12	15	63.787	0.000
Sufficient for 6 months	175	92	20	17		
Sufficient for 1 years	63	29	7	7		

(\*P<0.05, significant at 95% CI)

Table 4 shows association of physical health status and selected socio demographic variables. It shows that there is statistically significant association with physical health problems and educational status and main source of income ( $P < 0.05$ ).

Table 5 shows the association of psychological health problems and socio demographic variables. It shows that there is statistically significant association between psychological health problems gender, ethnicity, marital status, type of family, educational status, main source of income and economic status ( $P < 0.05$ ).

## DISCUSSION

The findings of this study showed that almost all (97.8%) were suffering from one or more physical problems. This study finding is supported by study done by Chalise & Rai (2013) [11] showed more than ninety percent (93.9%) older adults had some health problems. The studies conducted by Sharma et al. (2017), [5] Kaphle et al. (2014) [7] and Shankar et al. (2007) [8] showed that 84%, 84.1% and 88.8% of the senior citizens suffered from one or more health related problems respectively.

In this study, the most common problems of senior citizens were musculoskeletal (87.4%), gastrointestinal (82.9%), dental (82.3%), eyes (68.4%), genitourinary (65.6%) and neurological problems (58.9%). The less common health problems were cardiovascular (47.6%), ears (41.3%), respiratory (38.7%), endocrine (20.6%) and skin problems (7.8%). In contrast, the study conducted by Kaphle et al. (2014) [7] in geriatric homes of western Nepal, was carried out among 190 elderly showed the main health problems were arthritis/osteoarthritis (30.5%), cardiovascular problems (27.9%), gastrointestinal problems (20%), COPD/asthma (15.3%) and neurological problems (14.2%). In contrast, the study conducted by Bista & Joshi (2015) [10] in Kathmandu Nepal, was carried out among 100 elderly showed the main health problems were

hypertension (22%) COPD (19%) diabetes mellitus (15%) and arthritis/osteoarthritis (11%).

This study finding is contradict of a study conducted by Adhikari & Rijal (2014) [14] on factors affecting health seeking behavior of senior citizens of Dharan among 400 elderly, based on household survey found that the most frequently reported illness were hypertension (29.3%), diabetes mellitus (8.3%), arthritis/joint pain (24.8%), eye problems (19.0%), hearing problems (3.3%), oral health problems (17.5%), digestive system problems (17.8%), respiratory problems (11.0%), and least common diseases (<7%) are heart disease, renal problem, skin diseases, tuberculosis, liver disease, mental illness, fracture, and Gynecological problems.

This study showed that 52.8% had no depression, 47.2% of them had depression among which 30.0% mild, 8.4% moderate and 8.4% severe respectively measured by short form geriatric depression scale. This finding was supported by a study done on depression among geriatric population by Khatri & Nepal [5] as the finding of that study was 53.2% had depression. One of the study conducted by Simkhada, Wasti & Lee AC [9] in Kathmandu, on prevalence of depressive symptoms and its associated factors in older adults showed that 60.6% of the senior citizen had some form depression in which 27.7%, 21.1% and 11.8% of them had mild, moderate and severe depression respectively. Likewise, this study finding was also supported by a study done by Bista & Joshi [10] in Kathmandu in which 86% had no depression, 10% had mild and 2% had moderate and severe depression.

## CONCLUSION

The findings of the study concluded that the number of senior citizens having physical problems is high. The most common physical health problems were musculoskeletal, gastrointestinal, dental, eyes, genitourinary and neurological problems. The findings of this study reveal

that most of the senior citizens were self-dependent on basic and moderate activities of daily living. Regarding family relationship, most of them had good relationship with spouses; children; and grandchildren and had good communication with their family members. Similarly nearly half of the senior citizens had mild to severe level depression. There is statistically significant association of physical health problems and ethnicity, educational status and main source of income ( $P < 0.05$ ) and there is statistically significant association of psychological health problems and gender, ethnicity, marital status, type of family, educational status, current occupation, main source of income and economic status ( $P < 0.05$ ) of senior citizens. So the municipality needs to make regular health camps and provide special activities for addressing these problems.

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#### Limitations

This is a cross sectional study and results may change over time. The study is confined to Tarakeshwor only which made it difficult for the researchers to generalize the findings. Physical health problems were recorded by respondent's self-reported responses without any expertise examination. Senior citizens who cannot communicate properly during interview were excluded in this study.

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