

ORIGINAL ARTICLE

HEALTH STATUS OF ELDERLY PEOPLE LIVING IN DIFFERENT OLD AGE HOMES OF KATHMANDU

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ABSTRACT

Background: Old age can be broadly characterized by time- altered changes in an individual's biological, psychological and health related capabilities and its implication for the consequent changes in the individual's role in the economy and the society. The rising geriatric population is facing significant health problems in the developing world that are impacting the quality of their lives. The study aimed to assess health status of elderly people living in different oldage homes of Kathmandu and identify medications used by them.

Method: A descriptive cross-sectional study was carried out in three old age homes of Kathmandu targeting the people aged 60 years and above. The data for the study was collected from the elderly people and health care professionals through face-to-face interview with structured questionnaire and reviewing medical records of residents of last one year.

Results: Majority of residents were females (62.3%). The major part of the elderly population was in the age group of 71-80 years (50.9%). Regarding ethnicity, 34% were Brahmin followed by Newar and Chhetri (26.4% and 22.6%). 81.1% were illiterate and 50.9% were widow. The most common self reported health problem was pain and discomfort (88.7%). Regarding health, the most common diagnosed health problem was gastritis (69.8%) followed by hypertension (54.7%) and respiratory problems (30.1%). In general, female residents had more health problems compared to males. Pantoprazole was most commonly used medication (58.9%) followed by amlodipine (43.5%) and salbutamol sulphate (18.9%) . Medication compliance of elderly people was found to be good (87%).

Conclusion: This study revealed that gastritis was most common health problem and pantoprazole was most commonly used medication by elderly people living in old age homes of Kathmandu.

Keywords: *Old age homes, elderly people, health problems, medication*

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INTRODUCTION

Ageing is a process of a gradual change in a person's physical and mental state. A prior study "Senior Citizens and the Elderly Homes" revealed that elderly people who were suffering from health problems include chronic diseases like blood pressure, blood sugar, asthma, uric acid, gastric etc; all these were common to most of the old people¹. World Health Organization (WHO) defines senior citizens as people 60 years and above. Old age can be broadly characterized by time-altered changes in an individual's biological, psychological and health related capabilities and its implication for the consequent changes in the individual's role in the economy and the society². It is the common, natural and continuous process³. According to WHO, Health status is defined as "A description and/or measurement of the health of an individual or population at a particular point in time against identifiable standards, usually by reference to health indicators"⁴. A cross sectional study in elderly people of Bhaktapur found that common felt problems by elderly as pain and swelling of joints, back pain, indigestion, excessive tiredness, and hypertension. Pain and swelling of joints and indigestion were higher in males, and hypertension, back pain, and chronic bronchitis/asthma were higher in females⁵. There are many old age homes which have a common interest over the care of elderly citizens especially around urban areas. There are about 1500 elderly people living in 70 organizations registered all over the Nepal⁶. The rationale of our study is that population ageing is expanding worldwide including developing countries like Nepal. The worldwide population aged 60 years and older will surpass from approximately 770 million in 2010 to an

estimated one billion in 2020, and 20.0% of these people will be concentrated in developing countries⁶. Thus, it needs to be addressed and proper attention should be given to the elderly people. The geriatric problem has been viewed as growing health issue since, elderly people are more likely to develop physical, mental as well as other health problem. The main objective of our study was to assess the health status of elderly people living in different old age homes describing the pattern of diseases and to identify medications used by them.

METHODOLOGY

A descriptive cross-sectional study was done to find out the health status of elderly people living in three different old age homes in Kathmandu. The convenient sampling technique was adopted to collect the data from Asahaya Jestha Nagarik Aashram, Himalayan Biriddhaashram Kendra and Samaj Kalyan Kendra Briddhashram data. A total of 53 elderly people who consented were interviewed using semi-structured questionnaire in November 2022. In order to collect information about disease and medication, medical records of each resident were thoroughly reviewed covering a period of one year (December 2021 to November 2022). In addition, health professionals and authorized persons of old age homes were also interviewed to gain better understanding about health management system in the homes. The collected data and information were analyzed using Microsoft Excel and SPSS.

RESULTS AND DISCUSSION

Table No. 1 showed that the majority of the respondents (50.9%) were in the age group of 71-80 years. Likewise, 62.3% of the elderly people were female, and more than one-third (34.0%) belonged to the Brahmin ethnic group. All these results were similar with the study conducted by Khanal S et al which found that majority of the residents (54%) belong to 70-79 years age group and number of female residents was much higher compared to males (64% and 36% respectively). Similarly, most of the residents belonged to the caste groups such as Brahmin, Chhetri and Newar ⁷. This study found that 81.8% of residents were illiterate. A study conducted by Gupta AA et al in hilly areas of Pakhribas, Kosi zone, Nepal showed that 72% of residents were illiterate⁸. This study showed that 50.9% of residents were widow.

Table 1: Socio-demographic Characteristics of the Respondents

Characteristics	Number	Percent
Age Groups (in Years)		
60-70	15	28.3
71-80	27	50.9
81-90	10	18.9
>90	1	1.9
Sex		
Male	20	37.7
Female	33	62.3
Ethnicity		
Brahmin	18	34.0
Chhetri	12	22.6
Newar	14	26.4
Tamang	2	3.8
Others	7	12.2
Religion		
Hindu	50	94.3
Buddhist	2	3.8
Christian	1	1.9
Educational Status		
Illiterate	43	81.1
Primary	6	11.3
Secondary	2	3.8
Higher Secondary	1	1.9
Bachelors	1	1.9
Marital Status		
Married	10	18.9
Single	11	20.8
Divorced	5	9.4
Widowed	27	50.9
Pain/Discomfort		
Yes	47	88.7
No	6	11.3

Table 2: Physical activities of Elderly People

Activities	Independent (%)	Intermediate (%)	Dependent (%)
Feeding	53(100.0)	0(0.0)	0(0.0)
Walking	52(98.1)	0(0.0)	1(1.9)
Toileting	51(96.2)	0(0.0)	2(3.8)
Transferring	49(92.5)	2(3.8)	2(3.8)
Dressing	48(90.6)	3(5.7)	2(3.8)
Bathing	45(84.9)	2(3.8)	6(11.3)
Do household work	12(22.6)	25(47.2)	16(30.2)

A study conducted by Mishra et al found that 67.6% of widow were living at private old age home in Nepal ⁹. Self-reported health problem by elderly people was pain and discomfort (88.7%). A study conducted by Kshetri Dan BB et al in Bhaktapur showed that common felt problems by elderly people were pain and swelling of joints (65.7%) and indigestion (63.7%) ⁵.

Table 2 showed that all the elderly people independently performed their feeding activities, 96.2% can perform toileting, 92.5% can perform transferring, 90.6% can perform dressing, 84.9% can perform bathing, 22.6% can do household work. Table 4 showed that female residents suffered more from different health problems compared to males.. This was consistent with a similar study conducted by Khanal, et. al in Kathmandu⁷.

Table 3: Diagnosed Health Problems of the Elderly People

Health problem	Number	Percentage (%)
Gastritis	37	69.8
Hypertension	29	54.7
Respiratory problem	16	30.2
Asthma	8	15.1
COPD	6	11.3
Infection	2	3.8
Diabetes Mellitus	12	22.6
Tuberculosis	2	3.8
Psychosis	2	3.8
Depression	2	3.8
Gout	2	3.8
Thyroid disorder	1	1.9
Hyperlipidaemia	1	1.9

Table 3 showed the diagnosed health problems of the elderly people. The most common diagnosed health problems were gastritis (69.8%) followed by hypertension (54.7%) and respiratory problems (30.2%). This result is consistent with study done by Khanal et al which showed that the residents were found suffering from a number of diseases with gastritis and hypertension most common ⁷ In addition, study conducted by Gupta AA et al⁸ also revealed that gastritis (36%) was the most diagnosed medical condition among elderly people; and gastritis is a quite common health problem for the people of Nepal ⁸.

Table 4: Health Problem of Respondent According to sex

Health problem	Male (%)	Female (%)
Gastritis	15(40.5)	22(59.5)
Hypertension	13(44.8)	16(55.2)
Respiratory problem	6(37.5)	10(62.5)
Asthma	4(50)	4(50)
COPD	2(33.3)	4(66.7)
Infection	0(0.0)	2(100.0)
Diabetes Mellitus	7(58.3)	5(41.7)
Tuberculosis	1(50.0)	1(50.0)
Psychosis	2(100.0)	0(0.0)
Depression	1(50.0)	1(50.0)
Gout	1(50.0)	1(50.0)
Thyroid disorder	1(100.0)	0(0.0)
Hyperlipidaemia	0(0.0)	1(100.0)

Table 5: Medication Used by Elderly People

Types of Drugs	Category	Number	(%)
Proton Pump Inhibitors	Pantoprazole	31	58.9
	Omeprazole	2	3.8
Antihypertensive drugs	ARB (Losartan)	5	9.5
	CCB (Amlodipine)	23	43.5
Drugs for Respiratory Problem	Salbutamol Sulphate	10	18.9
	Salmeterol and fluticasone	4	7.6
	Tiotropium Bromide	3	5.7
	Doxofylline	1	1.9
Antidiabetic drugs	Biguanides (Metformin)	9	17
	DDP-4(Dipeptidyl-peptidase Inhibitor) (Linagliptin)	1	1.9
	Sulfonylureas (Glimepiride)	2	3.8
Anti-gout	Colchicine	2	3.8
Anti-tuberculosis	Rifampicin and Isoniazid	2	3.8
Drugs for thyroid disorder	Thyroxine sodium	1	1.9
Anti-depressant drugs	Amitriptyline	1	1.9
	Imipramine	1	1.9
Antipsychotic drug	Haloperidol	2	3.8
HMG-Co reductase	Rosuvastatin	1	1.9

Table 5 showed that, 58.9% of respondent were taking pantoprazole for gastritis, 43.5% were taking amlodipine for hypertension, 18.9% were taking salbutamol sulphate for respiratory problems, and 17.01% were taking metformin for diabetes. Other medications used by respondents were losartan, salmeterol and fluticasone, tiotropium bromide, glimepiride, rifampicin and isoniazid, omeprazole, colchicine, haloperidol, amitriptyline, imipramine, doxofylline, rabeprazole, linagliptin, rosuvastatin, thyroxine sodium. Besides these medications, more than 50% of elderly people took vitamins and calcium supplements in alternative days.

Table 6: Medication Compliance of Elderly People

SN	Response	Yes(%)	No(%)	Compliance percent
1	Do you forget to take your medication	19(35.8)	34(64.2)	64.2
2	Are you careless at times about taking your medication	11(20.8)	42(79.2)	79.2
3	When you feel better, Do you sometimes stops taking medicine	17(32.1)	36(67.9)	67.9
4	Sometimes, if you feel worse when you take the medicine, do you stop taking it?	6(11.3)	47(88.7)	88.7
5	I take my medication only when I am sick	6(11.3)	47(88.7)	88.7
8	It is unnatural for my mind and body to ne controlled by medication	0(0.0)	53(100.0)	100.0
7	I feel wired, like a 'Zombie' on medication	0(0.0)	53(100.0)	100.0
8	Medication makes me feel tired and sluggish	12(22.6)	44(83.0)	83.0
9	My thoughts are clearer on medication	53(100.0)	0(0.0)	100.0
10	By staying on medication, I can prevent getting sick	53(100.0)	0(0.0)	100.0

By applying the Medication Adherence Rating Scale (MARS) method, if the patient responds 'no' to questions number from 1 to 8 and responds 'yes' to questions number 9 and 10, then it is 100% medication compliance. Medication Adherence Rating Scale (MARS) method was used to calculate medication compliance rate from above questions 1 to 10, and found to be 87 %.

CONCLUSION

The study showed that females were more in number in old age homes in compare to males. The study revealed that gastritis and hypertension were most common diagnosed health problems in elderly people and Pantoprazole and Amlodipine were mostly used medications by them.

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AUTHOR CONTRIBUTIONS

Principle investigator BM took the overall responsibility for the study, including conceptualization, methodology development, analysis, and finalization of the manuscript. DS contributed to methodology design and tool preparation, data collection, analysis and manuscript preparation.

COMPETING INTERESTS

All the authors declare no competing interests