Common Health problems and Satisfaction of Health Services among Elderly in Nepal

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ABSTRACT

Introduction: Every country in the world is seeing an increase in the number and proportion of elderly people. Aging is on pace to be one of the most major societal changes of the twenty-first century which affects all sectors of society. The aim of the study was to assess factors affecting the utilization of health services among the elderly of Koshi Province, Nepal.

Methods: A quantitative descriptive cross-sectional study was conducted among 357 elderly. A multistage sampling technique was used for the selection of eight municipalities and wards for obtaining a representative sample from each ward. A semi structured interview schedule was used for data collection procedure. Descriptive statistics and inferential statistics were used after the normality test to measure the association of selected variables and utilization of health services.

Results: The study finding revealed that more than two-third (70.3%) of the respondents was young old age. More than half of the respondents were female. Less than half (44.0%) of the respondents were hypertensive. Less than one-thirds (27.1%) and (16.8%) of the respondents had hypertensive in urban and rural respectively. More than half (57.4%) of the elderly people were neutral (satisfactory satisfied) whereas one-tenth (8.7%) of the elderly were highly satisfaction.

Conclusions: The study concludes that two-thirds of the elderly were satisfied with health care services facilities. Although one-thirds of elderly were still not satisfied with the health care facility; so enhance to provide quality service to elderly is essential.

INTRODUCTION

Living longer lives, most individuals may expect to live into their sixties and beyond. The world's population of people aged 60 and more is predicted to reach 2 billion by 2050 than previous. Today, 125 million individuals are 80 years of age or older. By 2050, there will be nearly as many increasing trends (120 million) in China, and 434 million in the rest of the globe. By 2050, low- and middle-income nations will live 80% of all elderly people. The rate of aging of the global population is likewise rapidly growing. Similarly, France had a 10% to 20% increase in the proportion of the older population.[1]

Every country globally is seeing an increase in the number and proportion of elderly persons in its population. Aging stands on the brink of becoming a highly impactful societal transformation in the twenty-first century, influencing almost every sector, encompassing labor and financial markets, the demand for goods and services like housing, transportation, social

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protection, and even family structures.[2]

Similarly in Nepal, the total aging population is 2.5 million (2,521,000) which is almost 8.7% of the country's total population. The magnitude of aging people is predicted to two-fold to 18.6% in 2050 with 6.5 million (6, 568000) people aged up to 60 years.[3] Projections of the population for urban and rural areas are increasing day by day, life expectancy people is increasing day by day and the estimated male is 69.8 years and female be 73.8 years in 2031. The trends of urban population increased (by 4,523,821 (17.07%), in 2011, 6,559.945 (19.53%) in 2016, and 10,316, 197 (30.18%) in 2031 respectively. Rural population was 21,970,683 (82.93%) in 2011, 22,909,515 (80.47%) in 2016 and 23,867,616 (69.82%) in 2031. The estimated percentage of the 65 years and over population has increased from 5.43% in 2011 to 6.68% in 2031.[4]The aim of this paper was to identify the common health problems of aging people of Koshi Province and to insight into the satisfaction of health services among aging people.

In Nepal, most elderly people have at least one or more than one chronic health problems. However, a recent study suggested that only more than three-fourths of the elderly people had visited health facilities. Merely more than four-fifths of the elderly were satisfied with their health state.[5]

METHODS

Study Design: A quantitative descriptive cross-sectional study was conducted to assess the factors affecting the utilization of health services among the elderly of Koshi Province. Koshi Province is in the easternmost part of Nepal. It is divided into 14 districts and districts are subdivided into municipalities (urban and rural). It has one metropolitan city, two sub-metropolitan cities, 46 municipalities, and 88 rural municipalities. The population of Province 1 is 4834943 which comprises 18% of the total population of Nepal and the population of the elderly in this province is 393031 among them 196513 are male and 196518 are female.[4]

Sampling Procedure: For this study, a multistage sampling technique was used for the selection of the setting. At first, a total of 4 districts (Jhapa, Morang, Ilam, and Dhankuta) were selected among the 14 districts following the quota sampling (for the inclusion of both the hilly and Terai regions). Among four, two districts were selected from the Hilly region and two districts were from the Terai region. In the 2nd stage, two municipalities (one urban and one rural) were selected from each district via a simple random sampling method. A total of eight municipalities were

recruited. One ward (administrative division of a city) from each municipality was selected randomly by lottery method from those assigned municipalities considering the samples (i. e. 45 from each ward) needed. This final selection of individuals was based on the purposive sampling technique. To make the sample more representative, the chosen ward was visited, a bottle was turned in the center direction, and the first household in the direction indicated by the bottle was selected. The sample was then repeated on each alternate house until the target sample size was met. If there was more than one old person in a dwelling, the sample was picked randomly using a lottery system. If there are no seniors in the selected family, the data was collected from the neighboring household according to sample requirements.

Sample size: $n = z^2pq/d^2 = 323$;

Total sample size =356 (including 10% non-response rate)

Sample Size was calculated at 95% confidence interval and 80% power taking the 70% prevalence of utilization of health care services in a study done in Pokhara Lekhnath Municipality, Nepal.[6] The total calculated sample size is 356 but taken 357. Purposive sampling was done to obtain a representative sample.

Inclusion criteria: The study included individuals aged 60 years and older who expressed a willingness to participate. However, those with diagnosed mental health issues receiving medication and individuals with severe illnesses requiring emergency care were excluded from the study.

Instrumentation: A semi-structured interview schedule was developed by researchers based on the objectives of the study. The questionnaire was divided into three parts. Semi-structured interview-based questionnaires were designed as such to collect information regarding socio-demographic personal and other factors. A structured questionnaire was adopted by the researcher as per the Study of Global Aging and Adult Health (SAGE)'s questions on "Health Care Utilization".[7] The questionnaire was divided into three parts. Part I: It consisted of questionnaires related to socio-demographic and psycho-social factors of the elderly. The researchers developed this after the literature review. Part II consisted of questionnaires related to the present health problems of the elderly. The researchers developed this after the literature review. Part III consisted of questionnaires related to the utilization of health services by the elderly. It was a structured questionnaire that was adopted by the researcher as per the Study of Global Aging and Adult Health (SAGE)'s questions on "Health Care Utilization".

The tool was originally developed in English, then translated into Nepali, and subsequently back-translated into English. To ensure its appropriateness, a pretest was conducted among 10% (36) of older adults in a specific ward of Biratnagar Metropolitan City. Notably, this particular ward was designated for exclusion during the random selection of settings. After the pretest, any essential revisions to the tool were implemented.

Ethical Consideration: Ethical clearance was obtained from the Institutional Review Committee (IRC) of Tribhuvan University Institute of Medicine (TU, IoM) Maharajgunj and Ref. No (68(C-11) E² 078/079). Verbal and written permissions were obtained from the Ward chairman of selected areas prior to carrying out the data collection procedure. Written informed consent was obtained from each participant before the interview. The confidentiality of their information was censured by coding the interviews. Precautions were taken in every step of the study to safeguard the rights and welfare of the participants throughout and after the study.

Data Collection Procedure: Data was collected through face-to-face interviews using a structured interview schedule from November 29 to January 2021 by visiting every door-to-door step of each household. The nature and objective of the study were communicated to each participant. Before doing the face-to-face interview, informed consent (both verbal and written) was obtained. Each participant had 15-20 minutes to complete a face-to-face interview. Face-to-face interviews were done individually with each respondent to reduce data contamination. The collected data was reviewed for completeness and edited on the same day to avoid recollection bias and assure the study's quality and accuracy.

Data Analysis Plan: At the end of the interview, the questionnaire was quickly assessed for completeness and accuracy. The collected data was then edited, classified, coded, and then entered into Microsoft Excel, and exported to the statistical package for Social Sciences (SPSS) version 20 for analysis. Descriptive statistics (frequency, percentage, mean, standard deviation, and range) were used to describe the independent (socio-demographic and psycho-social) and dependent (utilization of health services by the elderly).

RESULTS

Table 1 shows that more than two-thirds (70.3%) of the respondents were young old age whereas 6.4% of the respondents were old-old age. More than half (47%) of the respondents were female. Likewise, less

than half of the respondents were illiterate whereas 2% of the elderly were bachelors and above. Less than half (48.1%) of the respondents were Brahmin/Chhetri whereas only 1.7% were Muslim. Similarly, three-fourths (77.5%) of the respondents were Hindus whereas 1.1% of the respondents were Christian.

Table 1: Socio- demographic Characteristics of Elderly n=357

Characteristics	Frequency (f)	Percentage (%)
Age		
Young old	251	70.3
Mid-old	82	23.0
Old-old	23	6.4
Mean ± SD	70.89±8.35	
Sex		
Male	168	47.0
Female	189	52.9
Education level		
Illiterate	166	43.69
Literate	111	31.1
Primary	16	4.5
Secondary	16	4.5
SLC	24	6.7
I A	17	4.8
Bachelor and above	7	2.0
Ethnicity		
Brahmin/Chhetri	172	48.1
Janajati	129	36.1
Madhesi	33	9.2
Dalit	17	4.8
Muslim	6	1.7
Religion		
Hinduism	277	77.5
Buddhism	26	7.3
Kiratism	44	12.3
Christianism	4	1.1
Muslim	6	1.7

Table 2 revealed that more than half (50.4%) of the respondents resided in urban places, more than half (82.4%) of the respondent's monthly income was Rs. 4000-9000 whereas only 17.3% of the respondent's monthly income was Rs. 10,000-14,000. Less than half of the respondent's occupations were farmers whereas only 1.7% of the respondent's occupations were carpenter/ meson.

Table 2: Place Resident, Income & occupation of the Respondents n=357

Variables	Frequency	Percentage
Pace of Resident		
Urban	180	50.56
Rural	177	49.57
Income (NRS)		
4000-9000	295	82.4
10000-14000	62	17.3
median (Q1 -Q3)	5000 (4000-8.500)	
Occupation		
Service	69	19.4
Business	67	18.8
Farmer	164	46.1
Carpenter/ Meson	6	1.7
Daily worker	18	5.1
Homemaker	34	9.0

Table 3 revealed that less than half (44.0%) of the respondents were hypertensive. Less than one-fourth (21.8%) of the respondents were diabetes. Less than one-fifth (18.2%) of the respondents were having difficulty breathing. Nearly eleventh percent (10.6%) of the respondents had arthritis. Ten percent (10.1%) of the respondents had eye problems whereas only 5.9% of respondent's problems had heart disease. Nearly ten percent (9.8%) of the respondents had a dental problem whereas only 7.6% had gastritis. Nearly four (3.9%) of respondents had Cholesterol whereas only 3.6% had depression. Two percent of the elderly had hypothyroidism whereas only 1.1% of the elderly had anxiety. More than one-fourth (29.1%) of the elderly complain of others' problems such as body aches, backaches, headache etc.

Table 3: Common Health problems of elderly (n=357)

Characteristics	Frequency (f)	Percentage(%)
Health Problem of the Elderly		
Hypertension	157	44.0
Diabetes	78	21.8
Difficulty in breathing	65	18.2
arthritis	38	10.6
Eye Problem	36	10.1
Dental problem	35	9.8
Heart disease	21	5.9
Gastritis	27	7.6
Hypothyroidism	14	3.9
Cholesterol	14	3.9
Depression	13	3.6
Anxiety	4	1.1
Others	104	29.1

Table 4 revealed that less than one-thirds (27.1%) and (16.8%) of the respondents had hypertensive in urban and rural respectively. Less than one-fifth (12.6%) and 9.24% of the urban and rural respondents had diabetes problem. Less than one tenth (8.6%) and nearly one tenth (9.5%) of the urban and rural respondents were having difficulty breathing. Nearly eleven percent (10.6%) of the urban and rural respondents had arthritis. Less than one-tenth (5.6%) and 4.4% of the urban and rural respondents had eye problems whereas only 3.6% and 1.6% of urban and rural respondents had heart disease. Nearly ten percent (5.3%) and 4.2% of the urban and rural respondents had a dental problem whereas. Less than one twentieth (2.2%) and 1.6% of urban and rural respondents had cholesterol whereas only 1.9% and 1.6% of the urban and rural respondents had depression. Two percent of the elderly had hypothyroidism whereas only 1.1% of the elderly had anxiety. More than one tenth (12.8%) and less than one-fifth 16.2% of the urban and rural elderly complained of others problems such as body ache, backache, headache etc.

Table 4: Common Health Problems of Elderly Living in Urban and Rural Areas (n=357)

Variables	Urban (%)	Rural (%)
Hypertension (n=157)	97 (27.1)	60 (16.8)
Diabetes (n=78)	45(12.6)	33 (9.24)
Difficulty in Breathing (n=65)	31(8.6)	34 (9.5)
Dental problem (n=34)	19 (5.3)	15 (4.2)
Heart Disease (n=21)	13(3.6)	7(1.9)
Gastritis (n=27)	10(2.8)	17(4.7)
Cholesterol (n=14)	8 (2.2)	6(1.6)
Depression (n=3)	7(1.9)	6(1.6)
Anxiety (n=4)	3(0.8)	1(0.2)
Others (n=104)	46 (12.8)	58(16.2)

Table 5 revealed that less than (47.5%) of respondents had received good service as wished. In terms of respectful care, (51.8%) of respondents answered well done by health care workers. In terms of talking with clients, more than half (52.7%) of the respondents were given a good response. In terms of gaining quick service, 55.2% of respondents responded well. In terms of quick attention to health service, more than half (58.0%) of the respondents answered well by health care workers. In terms of respect during care by doctors, 56.6% of respondents agreed. In terms of respect by administrative staff, 56.6% answered well whereas only 9.5% answered very good by health care workers. More than half of the respondents (55.7%) had good answers that were done to

maintain privacy during physical examination and treatment. More than two-fourths (54.3%) of the respondents answered to maintain dignity during care. More than half of respondents (54.3%) replied that it is good to take concern and listen to healthcare workers. Less than one-third (8.7%) of the respondents agreed to a very good frequency of explanations by Drs and nurses. More than half (52.7%) of the respondents agreed it was a good opportunity to ask questions about the problem. More than half (52.7%) of the respondents urban and rural respondents agreed to good involvement in decision-making during care. Less than one-third (29.1%) of the respondents agreed to weak permission taken by doctors during care. More than half (52.7%) of the respondents agreed to good participation in decision-making during treatment

and care. More than half (52.7%) of the respondents agreed that good privacy was maintained during a discussion with doctors. In terms of maintaining privacy according to patients' needs, Dr. more than half (54.9%) of the respondents agreed. In terms of maintaining the confidentiality of information, more than half (52.4%) of the respondents agreed. In terms of a problem contact with a doctor and happy to service, more than half (54.7%) of the respondents agreed to good. In terms of problem occurs, less than half (49.3%) %) of the respondents agreed to good. In an evaluation of the cleanliness of health facilities, more than half (53.5%) of the respondents agreed. In an evaluation of cleanliness, fresh air, and accommodation of health facilities more than half (53.5%) of the respondents agreed.

Table 5: Patient Satisfaction on Utilization of Health Service (n=357)

Characteristics	Poor (f) (%)	Weak (f)(%)	Good (f)(%)	Very good (f)(%)
Service as wish	6 (1.7)	123(34.5)	170 (47.5)	18 (5.0)
Respectful care	9(2.5)	102(28.6)	185 (51.8)	28 (7.8)
Talking with client	7 (2.0)	99 (27.7)	188 (52.7)	30 (8.4)
Gain quick service	7 (2.0)	88 (24.6)	197 (55.2)	32 (9.0)
Quick attention on health service	6 (1.7)	78 (21.8)	207 (58.0)	33 (9.2)
Respect during care by Dr	8 (2.2)	80 (22.4)	202 (56.6)	34 (9.5)
Respect by administrative staffs	7 (2.0)	82 (23.0)	201 (56.3	34 (9.5)
Maintain privacy during physical examination and treatment	6 (1.7)	92 (25.8)	199 (55.7)	27 (7.6)
Maintain dignity during care	6 (1.7)	91 (25.5)	196 (54.9)	31 (8.7)
Take concern and listen by health care workers	3 (0.8)	95 (26.6)	194 (54.3)	32 (9.0)
Frequency of explanation by Drs and nurses	4 (1.1)	95(26.6)	194 (54.3)	31 (8.7)
Opportunity to asked question about the problem	3 (0.8)	104(29.1)	186 (52.1)	31 (8.7)
Involvement in decision making during care	5 (1.4)	105(29.4)	183 (51.3)	31 (8.7)
Permission taken by Drs during care	2 (0.6)	104(29.1)	186 (52.1)	32 (9.0)
Participation in decision making during treatment and care	2 (0.6)	105(29.4)	188 (52.7)	29 (8.1)
Privacy maintained during discussion with Dr.	4 (1.1))	101(28.3)	191 (53.5)	28 (7.8)
Take concern and listen by health care workers	3 (0.8)	95 (26.6)	194 (54.3)	32(9.0)
Frequency of explanation by Drs and nurses	4 (1.1)	95 (26.6)	194 (54.3)	31 (8.7)
Involvement in decision making during care	5 (1.4)	105(29.4)	183 (51.3)	31 (8.7)
Permission taken by Drs during care	2 (0.6)	104(29.1)	186 (52.1)	32 (9.0)
Participation in decision making during treatment and care	2 (0.6)	105 (29.4)	188 (52.7)	29 (8.1)
Privacy maintained during discussion with Dr.	4 (1.1)	101 (28.3)	191 (53.5)	28 (7.8)
maintain privacy according to patients needs by Dr.	3 (0.8)	100 (28.0)	196 (54.9)	25 (7.0)
Maintain confidentiality of information	3 (0.8)	109(30.5)	187 (52.4)	25 (7.0)
Problem for contact with Dr and happy to service	2 (0.6)	108 (30.3)	188 (52.7)	27 (7.5)
Problem occurs	3 (0.8)	116 (32.5)	176 (49.3)	29 (8.1)
Evaluation on cleanliness of health facility	2 (0.6)	103 (28.9)	191 (53.5)	28 (7.8)
Evaluation on cleanliness, fresh air, accommodation of health facility	2 (0.6)	107 (30.0)	193 (54.1)	22 (6.2)

Table 6 illustrated that more than half (57.4%) of the elderly people were neutral (satisfactory satisfied) whereas less than one-thirds (33.9%) of the elderly were unsatisfied only for care provided by doctors, nurses and overall care and hospital facility. Likewise, less than one-tenth (8.7%) of the elderly were highly satisfaction.

Table 6: Level of Satisfaction of elderly on health care facilities n=357

Level of Satisfaction	Frequency (f)	Percentage (%)
Unsatisfied	121	33.9
neutral (satisfactory satisfied)	205	57.4
satisfied	31	8.7

DISCUSSION

This study assessed the factors affecting the utilization of health services among the elderly of Koshi Province. This study finding revealed that the mean age of respondents was 70.89±8.35 and more than half (52.9%) of respondents were female whereas a similar finding by Safstrom et al[8] argued that patient's mean age was 82.5 (±6.8), as well as 49%, were women. The study shows that less than half (43.69%) of the respondents were illiterate and nearly three fourth (74.5%) of respondents were married and 19.6% of respondents were widows whereas contract findings revealed that a study[9] argued that only 28.7% had received no formal education and 75.8% were married, 21.6% were widowed and. This might be the differences in socio-demographic variables and settings. A similar finding shows that the mean age is 70.2 ± 8.0 for the elderly and had reported by a variety of preexisting circumstances for example hypertension (37.7%), gastritis (28.4%), asthma (25.4%), and arthritis (23.4%) reported in the past one year.[6]

This study finding showed that more than half (52.5%) of the respondents' monthly income was Rs. 4000-9000 and less than half (82.4%) of the respondents were hypertensive, and less than one-fourth (21.8%) of the respondents were diabetes, contradicting finding show that a study conducted among 2000 elderly in claims that the health services[11] used by pension income level 1000-2000 RMB, source of income, poor self-reported health status, sensation disorders, feeling lonely and/or nervous, poor satisfaction with life, limitation to activities of daily living (ADLs), health status changing for the worse, and having a chronic disease like heart disease, cataracts, cerebrovascular disease, and gastroenteritis were particularly more likely to use outpatient health services. This might be

differences in the socio-demographic characteristics of respondents and the setting of the study.

This study finding revealed that most (90.7%) of the respondents visited (utilized) health service facilities whereas only (9.5%) did not utilize health facilities. More than three fourths (78.9%) of the respondents were visited a government hospital or health facility whereas only 5.6% of the respondents were visited a private hospital which contradicts the finding revealed that about one-third (76.5%) of respondents reported physical health issues, 14.6% claimed some physical handicap, and 52.6% indicated a mental health issue. Gender disparities in marital status, literacy, living arrangements, pensions, physical health issues, and mental health problems were found to be significant (p < 0.01)[10] Likewise, another contradicting finding[11] by argued that most aged patients used public health services when they needed medical care (70.4%). Similarly, another study argued contradicting findings[12] that nearly seventy-five (74.5%) in the past three months, including 59.4% from general practitioners, 18.4% from nursing staff, and 16.5% from specialists. 39.2% had laboratory tests conducted, and 24.9% had radiographic examinations, 2.4% were emergency visits, and 2.9% were hospitalizations. Likewise, other contradicting findings revealed that half of the patients had not visited any health care institution in the month preceding their hospitalization, and 79% went to the emergency department without a referral. One-third felt unsafe after being admitted to the hospital and had no idea who to talk with or contact in the case of worsening or difficulties.[8]

Present study findings revealed that more than three fourths (78.9%) of the respondents visited government hospitals or health facilities whereas only 5.6% of the respondents visited private hospitals. Furthermore, contradicting findings revealed that those living in rural regions with university education used public primary care more frequently, but richer people used private practitioners more frequently.[13]

CONCLUSIONS

Over two thirds of the participants were elderly individuals. The majority of those surveyed were female. Likewise, less than half of the respondents were illiterate, on the other hand, Muslims made up the minority among the respondents, with less than half being Brahmin/Chhetri. In a similar vein, Hindus made up three quarters of the respondents. The study found that diabetes, hypertension, heart disease, eye, dental, and anxiety disorders were the most prevalent health issues among the elderly. The majority of senior citizens went to (used) healthcare facilities. Less than ten percent of respondents visited

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private hospitals, compared to four out of every five who visited government hospitals or other health facilities. Similarly, more than half of the respondents have been admitted to the hospital whereas more than one-fourth of the respondents were in OPD service. Almost three- fifths of the respondents were visited by their daughter. Hypertension, diabetes, dental problems and heart disease are higher in urban than rural. Less than half of respondents indicated that they would prefer good service and most of the elderly were satisfied with the care they received from healthcare facilities.

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