Health Service Utilization by Elderly Population in Urban Nepal: A Cross-Sectional Study

Abstract

Background

The elderly population is in increasing trend all over the world. Elderly people experience many physiological, biological and psychological changes. The general objective of the study is to assess the utilization of health care services among the elderly population of Butwal sub-metropolitan city.

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Methods

A quantitative descriptive-cross sectional study, with a total number of 212 elderly people residing in Butwal sub-metropolitan city, was selected for the study purpose. The study period was from March to October 2015. The samples were randomly selected from the sampling frame of 3 different wards of Butwal sub-metropolitan city. Information was collected using an interviewer administered semi-structured questionnaire. Chi-square test was used to identify the factors associated with the utilization of health care services among elderly population.

Results

Our findings reveal that 84.4% of elderly people visited to the health facility during past 1 year. There were more females (50.9%) than males (49.1%). Majority of elderly people were diagnosed with one of the chronic ailment; were under regular medication. More than 4/5th (84.9%) of older adults rated "satisfactory" to their health condition. Monthly family income, chronic disease, elderly on medication and self-rated health status are statistically significant with utilization of health care services at 95% level of confidence.

Conclusions

The finding suggests that monthly family income, chronic disease, elderly on medication and self rated health are strongly associated with utilization of health care services by elderly people. Thus the study suggests further interventions to improve the health care service utilization by elderly people.

Keywords: Elderly, Utilization of health care, Butwal

1. Introduction

Ageing is a natural phenomenon and an inevitable process in life. Ageing refers to the increasing inability of the body to maintain itself and to perform the functions it once did. Ageing is a process of gradual change in physical appearance and mental situation that cause a person to grow old.[1] The elderly who are incapable of doing any work need to be specially understood because of their dependence upon others for physical, emotional and medical care.[2] Previous studies in Nepal revealed that the older population is increasing both in terms of absolute numbers and in percentage.[3] At the population level, overall health care utilization would appear to increase significantly with age.[4]

The Senior Citizen Acts of Nepal 2063 defines the senior citizen as "people who are 60 and above". Elderly population increased by 43% during 2001 to 2011.[5] The elderly are one of the most neglected groups in Nepalese society.[6] Elderly people are physically disabled, financially weak; their need, interests, wishes are not fulfilled in the family and community due to which they face more health problems.[7] In a country like Nepal, a marginal increase in the proportion of older people poses serious problem where people are characterized by greater spatial inequalities, poverty, stagnant economy, illiteracy and poor health status.[8] Growing numbers of elderly people are suffering problems in different aspect, but there are limited studies in relation to general morbidities as well as specific in this group of people.[9]

The individual aged 60 years and above were considered as elderly which is accepted globally as a lower chronological age threshold for older persons.[10] This paper attempts to assess the utilization of health care services among the elderly population of Butwal sub-metropolitan city.

2. Methods

2.1 Study design and participants:

Butwal sub-metropolitan city, a city located in Western region of Nepal was selected as the site of the study. A quantitative descriptive cross-sectional study design was used to assess the utilization of health care services and to identify factors associated with utilization of health care services by elderly population of Butwal. Total of 212 elderly people were calculated to participate in study based on following assumptions: prevalence (p) =48.5%, sampling error (d) =10%, 95% C.I and 10% of non-response rate. The samples were randomly selected from the sampling frame of the 3 different wards of 22 wards of Butwal sub-metropolitan city. Cluster random sampling was adopted to collect the information through the use of an interviewer administered semi-structured questionnaire. The inclusion criterion was all adults' aged 60 years or older living in the selected wards. The exclusion criteria were being cognitively impaired, deaf and who refuse to participate.

2.2 Data collection and study variables

Data collection was performed in April, 2015. The interview questionnaire was pretested with 15 elder people residing in the homogenous non-sampling area to validate the questionnaire.

The interviewer conducted face-to-face interview at the residing place of the elder people.

Utilization of health care services in past one year is the dependent variable of this study which was asked by, "Have you visited to medical institutions in past one year?" The independent variables of the study are demographic factor (age, gender, marital status, disability), cultural factor (belief on traditional healer), socio-economic factor (personal income, family income, cost of health care services, occupation, education and health insurance), psychosocial factors (preference for seeking care, self medication, revealing health problems to family and service provider), family background (family support, dependency on family) and quality of health service (satisfaction with health care and communication with service provider).

This study collected information on socio-demographic characteristics (age, gender, religion, ethnicity, family type, dependency, living arrangement, marital status, educational status, occupation, monthly income and disability), personal history of respondents (smoking, alcohol, chewing tobacco, performing exercises, self-rated health condition and depend upon family for their daily living activities), utilization of health care services (under regular medication, visit to health facility in past 1 year, visit to emergency department and admitted to hospital in past one year and the reasons for visiting health facility, diagnosed chronic ailment, etc) and on experiences of health care service use (cost of health services, satisfaction with medical care, communication skills of service provider, wait long for seeking care, etc).

2.3 Data Analysis

Data analysis was done using descriptive statistics with the aid of statistics package SPSS 15. For meaningful interpretation mean, median and mode were used to organize and summarize the data. Chi-square associations with categorical variables were conducted in order to establish associations between dependent and independent variables. In this study, p-value <0.05 were considered statistically significant.

2.4 Ethical Considerations

Approval for conducting this study was obtained from the Institutional Review Committee, Manmohan Memorial Institute of Health Sciences. All respondents were notified that the data collected would be treated with anonymity and confidentiality. Informed verbal consent was obtained from the respondents before interviewing them.

3. Results

3.1 Socio-demographic and personal history of the respondent (n=212)

The mean age of the respondents was 69.8 years. There were more female (50.9%)respondents; the majority of respondents were married (69.3%). Majority of participants were Illiterate (60.8%), although 12.7% participants were able to read and write,

9% of participants received primary level and 17.5% received secondary and higher education. Majority of the participants were from upper caste group and from joint family. 9/10th (91.5%) of participants were Hindu by religion. Around 3/4th of the participants live with their

son. 12.3% of participants were disabled (Table 1).

More than 1/4th(27.8%) of the respondents were current smoker, 24% current alcohol drinker and 17.5% of respondents are tobacco chewer. Thirty seven percent (37.3%) of respondents are found performing regular exercise. It is revealed that 2/3 of respondent don't depend upon family members for carrying out their Daily Living Activities. Above 4/5th (84.9%) of respondent rated satisfactory to their health condition (Table 1).

3.2 Health service utilization by the respondents

Above 4/5th (84%) of the older adults were found utilizing health services; where 5.7% and 12.7% of them visited emergency department and admitted to hospital respectively. Over 8/10th (82.1%) of the participants were diagnosed with one of the chronic ailment whereas 7/10th (71.7%) of total participants were under regular medication. Hypertension (36.2%) was found to be more common chronic disease among the participants. Majority of the participants (57.5%) have belief on traditional healing system (Table 2).

3.3 Factors associated with utilization of health services by elderly people and their socio-demographic factors:

Monthly family income, chronic disease, elderly on medication and self-rated health showed significant association with utilization of health services by elderly population at 95% level of confidence (Table 3).

4. Discussion

In Nepal, the elderly population is increasing both in terms of absolute numbers and as a proportion of the total population; however, traditional family norms and values of supporting the elderly are eroding. However advances in medical knowledge may have led to an increase in life expectancy and increase in the number of older people in society. The elderly population who are unable of doing work need to be specially implicit because of their dependence upon caregiver for physical, emotional and medical care.

Our study attempted to assess the utilization of health care services among the elderly population of Butwal sub-metropolitan city.

In the present study, we found married couples were utilizing more health care services than of being widowed/divorced/polygamy. However, we didn't found any association between them. The findings observed in our study contrast to that found in Dhulikhel study. A Literature review from Nepal revealed that over 80% of elderly were living with their children (97.3% with sons and 2.7% with daughter) and above 60% of elderly male holds head position in their family.[17] In line with this, we found 74.1%, 9%, 12.7% and 4.2% of elderly were living with their son, daughter, couple only and with others(relatives) respectively.

Of total, 9/10th (90.3%) fall sick often but only 67.8% visited health facility when they were seriously sick.[11] This confirms that health service utilization was not up to the mark, supported by our study findings where 100% respondents rated health care services as expensive for the elderly who reported any health problems. The reasons behind poor utilization was supported by the findings from study conducted in Edo state and Brazil.[11-12] The cost of health service

received was deemed too expensive by 53% of the respondents.[11-12]

One of the Korean study showed that elders in poor health status were significantly older and poorer, with higher rates of chronic conditions and health services utilization, which should help in the health care planning required to address this issue.[13]Respondents who rated their health status as satisfactory were found more to be utilizing health care services and there is the significant association between self-rated health and service utilization.

It has been reported that most of the elderly people (84.1%) in western Nepal suffered from one or more health related problem.[15]Similarly, another research from Nepal Geriatric Center 2011, showed more than half of the residents in old age home studied were suffering from at

least one chronic illness.[16] Our study revealed8/10th (82.1%) of respondent are diagnosed with chronic ailment. In overall, 98.68% of the elderly population under regular medication was found utilizing the health care services. These populations were under medication of the health institution not self medication. Our findings are similar to the study done in central Nepal where they showed association between under medication, presence of chronic ailment and service utilization.[3]

In current study, self-reported presence of chronic disease, monthly income of respondent's family, respondent under medication and self rated health status were found to be associated with health care services utilization

5.Conclusion

Health care service utilization among the elderly population of Butwal sub-metropolitan city was assessed; more than 8/10th (84%) of elderly people utilized the health service in past 1 year. Majority (57.5%) of study population has belief on traditional healing system.

The finding suggests that monthly family income, chronic disease, elderly on medication and self-rated health status are strongly associated to the utilization of health care services among the elderly people. This suggests that provision of free health care services, good interpersonal relations, and awareness programs on health targeting the senior citizens may lead to increase the utilization of health care services by elderly people.

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Annexes

Table 1 Socio-demographic and personal history of the respondent:

Variables	Frequency(n)	Percentage (%)
Age distribution		
60-69	117	55.2
70-79	65	30.7
≥80	30	14.2
Total	212	100.0
Gender		
Male	104	49.1
Female	108	50.9
Total	212	100.0
Marital status		
Married	147	69.3
Widow/poly gamy	65	30.7
Total	212	100
Educational status		
Able to read/write	27	12.7
Primary level	19	9
Secondary and higher	37	17.5
Illiterate	129	60.8
Total	212	100.0
Ethnicity		
Dalit	26	12.2
Disadvantaged janajatis	61	28.8
Upper caste	125	59
Total	212	100.0
Occupation		
Agriculture	37	17.5
Business	12	5.7
Service	3	1.4
Housewife	9	4.2
Retired/Pension	52	24.5
No work	99	46.7
Total	212	100.0
Monthly family income		
≤5000	3	1.4
5000-14999	19	9
≥15000	179	84.4
No income	11	5.2
Total	212	100
Type of family		
Nuclear	56	26.4
Joint	156	73.6
Total	212	100
Living arrangement		
Son	157	74.1
Daughter	19	9
Couple only	27	12.7
Others	9	4.2
Total	212	100
Dependency on		
Self-income	44	20.7
Children's/family income	139	65.6
Partially on children/family income	29	13.7
Total	212	100.0
Disability		
Yes	26	12.3
No	186	87.7%
Total	212	100.0

Smoking behavior		
Current smoker	59	27.8
Ex-smoker	53	25
Never	100	47.2
Total	212	100.0
Alcohol		
Current drinker	51	24
Ex-drinker	29	13.7
Never	132	62.3
Total	212	100.0
Tobacco		
Current chewer	37	17.5
Never chewer	175	82.5

Total	212	100.0
Performing exercise		
Yes	79	37.3
No	133	62.7
Total	212	100.0
Depend for daily living activities		
Yes	58	27.4
No	154	72.6
Total	212	100.0
Rate health condition		
Good	8	3.8
Satisfactory	180	84.9
Poor	24	11.3
Total	212	100.0

Table 2 Respondents utilizing health services in past one year

Variables	Frequency(n)	Percent (%)
Visit to Health Facility		
Yes	178	84
No	34	16
Total	212	100.0
Visit to Emergency Department in past 1 year		
Yes	12	5.7
No	166	78.3
Total	178	100.0
Admitted to hospital in past 1 year		
Yes	27	12.7
No	151	71.2
Total	178	100.0
Under medication		
Yes	152	71.7
No	60	28.3
Total	212	100.0
Diagnosed chronic ailment		
Yes	174	82.1
No	38	17.9
Total	212	100.0
Chronic disease pattern (multiple choice)		
Hypertension	63	36.2
Diabetes	32	18.39
Heart disease	12	6.89
Respiratory	19	10.91
Musculoskeletal	32	18.39
Others	58	33.33
Belief on Traditional healing system		
Yes	122	57.5
No	90	42.5
Total	212	100.0
Preference on (multiple choice)		
Dhami	89	42.0
Ayurvedic	119	56.1
Home remedy	92	43.4
Astrologers	42	19.8

Table 3 Association of health service utilization with socio-demographic factors

*statistically significant at 95% level of confidence.

Variables	Utilization of health care		valu
	Yes (%)	No (%)	P Value
Age			
60 to 69	96(82%)	21(18%)	0.609
70 to 79	57(87.69%)	8(12.31%)	
≥80	25(83.33%)	5(16.67%)	
Total	178	34	
Sex			
Male	85(81.7%)	19(18.3%)	0.385
Female	93(86.1%)	15(13.9%)	
Total	178	34	
Marital status			
Married	125(85%)	22(15%)	0.546
Widowed/Polygamy	53(81.5%)	12(18.5%)	
Total	178	34	
Education			
Can read/write	23(85.18%)	4(14.82%)	0.332
Primary level	14(73.68%)	5(26.32%)	
Secondary and higher level	34(91.9%	3(8.1%)	
Illiterate	107(82.9%)	22(17.1%)	
Total	178	34	
Monthly income of family			
<5000	1(33.33%)	2(66.67%)	0.004*
5000-14999	12(63.2%)	7(36.8%)	
≥15000	154(86%)	25(14%)	
No Income	11(100%)	0	
Total	178	34	
Smoking habit			
Current smoker	51(86.4%)	8(13.6%)	0.542
Ex-smoker	42(79.2%)	11(20.8%)	
Non-smoker	85(85%)	15(15%)	
Total	178	34	
Having supportive family			
Yes	163(84.9%)	29(15.1%)	0.331
No	15(75%)	5(25%)	
Total	178	34	
Satisfaction with medical care			
Yes	159(85.5%)	27(14.5%)	0.14
No	19(73.1%)	7(26.9%)	
Total	178	34	
Activities of daily living			
Dependent	47(81%)	11(19%)	0.476
independent	131(85.1%)	23(14.9%)	
Total	178	34	
Self-rated health status			
Good	3(37.5%)	5(62.5%)	0.003*
Satisfactory	156(86.7%)	24(13.3%)	
Poor	19(79.16%)	5(20.84%)	
Total	178	34	
Chronic diseases			
Yes	159(91.4%)	15(8.6%)	0.00*
No	19(50%)	19(50%)	
Total	178	34	
Elderly on medication			
Yes	150(98.7%)	2(1.3%)	0.00*
No	28(46.7%)	32(53.3%)	
Total	178	34	
Belief on traditional healing system			
Yes	98(80.3%)	24(19.7%)	0.093
No	80(88.9%)	10(11.1%)	
Total	178	34	
Knows services to elderly provided by Government of Nepal			
Yes	175(84.9%)	31(15.1%)	0.054
No	3(50%)	3(50%)	
Total	178	34	