ISSN : 2961-1636 (Print)
ISSN : 2961-1644 (Online)

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Submitted:
6th May, 2024

Accepted:
1st September, 2024

Published:
31st December 2024

Citation:
Sarita Khatiwada. Health Service Utilization among Elderly in Itahari Sub-Metropolitan City. Purbanchal University Health Journal. 2024 December; 2(2)3: 31-37.

DOI:
https://doi.org/10.3126/puhj.v2i2.81731

Health Service Utilization among Elderly in Itahari Sub- Metropolitan City

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Abstract

Introduction: Ageing is a process of gradual change in physical appearance and mental situation that cause a person to grow old. Morbidity increases with age and enhances the burden of health problems that result in new challenges to meet additional demands. In the ageing population, health problems, and health care utilization should be assessed carefully and addressed. This study aimed to identify chronic morbidities, health problems, health care seeking behavior and health care utilization among the elderly.

Objective: This study aimed to identify health services utilization among the elderly peoples.

Method: A descriptive cross-sectional study was conducted among elderly people of Itahari Submetropolitian city through face-to-face interview. Data collection involved assessment of health care utilization among the elderly peoples. Multi stage sampling was done were descriptive and inferential analysis were done.

Result: The study of 323 participants (mean age 71.84 ± 7.9 years) found that most were male, lived with sons, and 72.5% had an illness. Multiple mild-severity illnesses affected 34.1%, while 70.6% utilized healthcare services, with age and chronic illness significantly influencing usage. Improving elderly healthcare requires affordable services, stronger primary care, specialized geriatric programs, and better accessibility will increase more health service utilization.

Conclusion: The study revealed a high burden of multiple illness among the elderly, with many utilizing health services. However, barriers such as cost, illness severity, distance, and belief in traditional healing limited access. Most participants had chronic conditions, and nearly half believed in traditional treatments. Improving awareness and accessibility of government health services is essential to enhance healthcare utilization among older adults.

Keywords: Elderly; Health care; Services; Utilization

Introduction

Ageing is a natural and inevitable process that reflects the gradual decline in the body's ability to maintain its functions and adapt to changing physical and mental demands. It encompasses both physical changes in appearance and alterations in mental and emotional states as individuals grow older.[1]

The elderly, particularly those who are unable to work or care for themselves, often rely on others for physical, emotional, and medical support.[2]

Nepal is experiencing a significant demographic shift with a rapidly aging population. The proportion of elderly individuals (aged 60 and above) has risen from 8.1% in 2011 to 10.2% in 2022, necessitating a proactive approach to addressing their evolving healthcare needs. As the elderly population grows, the demand for healthcare services is likely to increase due to the higher prevalence of age-related health conditions.[3]

Achieving healthy ageing involves maintaining functional ability by effectively addressing the healthcare needs of older adults. Health needs assessments, which measure the health status of populations and identify gaps in services, play a critical role in planning interventions for healthy ageing.[4,5] In Nepal, individuals aged 60 and above are categorized as senior citizens, and their increasing numbers require focused attention to ensure their health and well-being.[6]

The 2015 Global Age Watch Index ranked Switzerland as the most suitable country for older adults, while Nepal ranked 70 out of 96 countries. This highlights significant room for improvement in Nepal's elderly care services by assessing chronic morbidities, health problems, and healthcare utilization behaviors among the elderly in Nepal, stakeholders can develop targeted interventions to promote healthy ageing and address unmet needs effectively.[7]

Ageing is often accompanied by chronic health conditions such as cardiovascular diseases, cancer, and neurological disorders, which present significant challenges to healthcare systems. These conditions not only increase healthcare costs but also strain existing resources.[8,9] Despite the high burden of disease, older adults tend to use fewer healthcare services than younger populations, influenced by factors such as personal circumstances, social dynamics, economic constraints, and environmental conditions.[10]

Globally, the growing elderly population has led to calls for revised healthcare policies and programs tailored to the unique needs of older adults.[11] In Nepal, the increasing elderly population faces various health and social challenges, yet studies focused on this group remain limited. Understanding the healthcare-seeking behaviors, service utilization patterns, and determinants of healthcare access among older adults is essential for addressing these challenges.

This study aims to understand factors that hinders the utilization of health care in Itahari Submetropolitian City.

Method

A descriptive cross-sectional research design was adopted to assess health service utilization among elderly people residing in Sunsari district, Nepal. Sunsari district comprises 14 districts, one metropolitan city, two sub-metropolitan cities, 46 municipalities, and 88 rural municipalities. Itahari, is the second-largest city and a sub-metropolitan area in Province one, which is located in Sunsari district and consists of 20 wards. According to the 2021 Nepal census, Itahari has an estimated population of 198,098 living in 40,207 households and 18461 elderly people.[8,9]

To select participants for the study, multi stage sampling was employed. A total of 323 elderly individuals were chosen using cluster sampling, as illustrated in Figure 1. The study was conducted over nine months, from July 2022 to March 2023, and included randomly selected wards 6, 8, and 9 of Itahari.

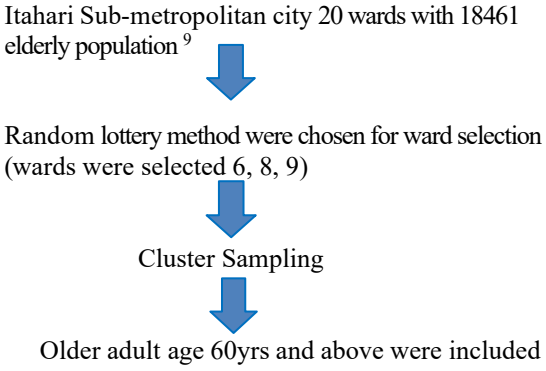

Figure1: Sampling Framework

Step I: Itahari Sub-Metropolitan City was chosen for the study. Simple random sampling (lottery method) was used to select three wards (6, 8, and 9) out of 20 wards, giving each ward an equal opportunity for selection.

Step II: After selecting wards, cluster random sampling was used to select elderly individuals meeting the inclusion criteria.

The questionnaire was developed after an extensive literature review, consultations with experts, and guidance from the research supervisor, ensuring it comprehensively addressed the study's objectives. The use of a structured interview schedule helped maintain consistency in data collection, covering essential aspects like sociodemographic details, perceived severity of illness and health service utilization. Ethical approval from the Research Committee of Purbanchal University School of Health Sciences (IRC No 014-079/80), along with formal permissions from Itahari Sub-Metropolitan and local ward authorities, ensured the study adhered to institutional and local guidelines. Briefing the ward authorities on the study's objectives and process further ensured the research was relevant and aligned with community expectations. These measures collectively contributed to maintaining content validity, ensuring that the instruments and procedures used in the study effectively captured all relevant aspects of the research. A pretest was conducted ward no 2 and 3 of Itahari submetropolitian city which were not included in this study to test the questionnaire and address any issues.

Data were analyzed using descriptive statistics (frequency, percentage, and mean, standard deviation) to summarize sociodemographic characteristics and service-related factors, alongside inferential statistics to address research objectives and questions.

Result

Most of the elderly people (70.6%) had utilized health care services and nearly half of the respondents (42.4%) had mild perceived severity of illness as shown below table.

Table 1: Sociodemographic Characteristics of the respondents n=323

Variables	Frequency (f)	Percent (%)
Age (In Years)		
60-69	161	49.8
70-79	99	30.7
80 and above	63	19.5
Mean age± SD =71.84±7. 9		
Sex		
Male	202	62.5
Female	121	37.5
Ethnicity		
Terai/madhesi	30	9.3
Religious minorities	11	3.4
Dalit	21	6.5
Adibasi janajati	74	22.9
Bramhan/chhetri	173	53.6
Others	14	4.3
Religion		
Hinduism	231	71.5
Buddhist	20	6.2
Muslim	19	5.9
Christianity	32	9.9
Others	21	6.5
Marital status		
Unmarried	7	2.2
Married	251	77.7
Widow	63	19.5
Divorced	2	0.6
Type of Family		
Nuclear	198	61.3
Joint	125	38.7
Education status		
Illiterate	192	59.4
Formal Education	17	5.3
Primary	46	14.2
Higher secondary	45	13.9
University/College	23	7.1
Occupation		
No work	172	53.3
Business	45	13.9
Govt_jobs	19	5.9
Priest	29	8.9
Agriculture	21	6.5
Others	37	11.5
Family Income per month (NPR)		
<50000	234	72.4
51000-100000	62	19.2
>100000	27	8.4

As shown in Table no 1, average age of respondents was 71.8 ± 7.9 years. Nearly one-third (30.7%) were aged 70–79 years, while 19.5% were above 80 years. Over half (62.5%) of the respondents were male, and the majority (77.7%) were married. Regarding ethnicity, 53.6% belonged to the Brahmin and Chhetri groups, and 71.5% followed the Hindu religion More than half 61.3% of respondents lived in

nuclear families, while 59.4% were illiterate. Additionally, 53.3% were not engaged in any work, and the majority (72.4%) had a family income of less than NPR 50,000.

Table 2: Living Arrangements of Respondents n=323

Variables	Frequency (f)	Percent (%)
Living with		
Son	209	64.7
Daughter	26	8.0
Couple only	63	19.5
Other relatives	25	7.7
Dependents on others		
Yes	63	19.5
No	260	80.5
Status of disability		
Yes	46	14.2
No	277	85.8

Similarly, regarding the living arrangements of respondents (Table:2) were more than half of respondents (64.7%%) live with their son and 19.5 % couple live alone. Majority of respondents (85.8%) are not dependent on others and 14.2% were disable.

Table 3: Behavioral Factors of Respondent n=323

Variables	Frequency(f)	Percent (%)
Smoking behavior		
Current smoker	23	7.1
Ex_smoker	73	22.6
Never	227	70.3
Alcohol consumption		
Current drinker	29	9.0
Ex_drinker	75	23.2
Never	219	67.8
Tobacco consumption		
Current chewer	22	6.8
Never	301	93.2
Perform daily exercise		
Yes	126	39.0
No	197	61.0

As shown in Table no 3, regarding the behavior factors of respondents were most of the respondents (70.3%) never had smoking, more than half of respondents (67.8%) had never consume alcohol and majority of them 93.2% have not consume tobacco. More than half of respondents (61.0%) are not performing regular exercise.

Table 4: Health Problems of Respondents n=323

Variables	Frequency (f)	Percent (%)
Diagnosed Illness		
Yes	234	72.4
No	89	27.6
Types of illness		
Hypertension	37	11.5
Diabetes Mellitus 2	38	11.8
Heart disease	17	5.4
Respiratory problems	15	4.6
Musculoskeletal	20	6.3
Multiple illness	80	34.5
Others	26	24.8
Perceived Severity of illness		
Mild	137	42.4
Moderate	68	21.1
Severe	27	8.4
No any illness	91	28.1

Most of the respondents (72.4%) was diagnosed with diseases and among them 24.8% were suffering from multiple illness and nearly half of respondents (42.4%) had mild pseverity of illness as shown in Table no.4.

Table 5: Respondents Utilization of Health Service in past one year (N=323)

Variables	Frequency (f)	Percent (%)
Visited health facility in past one year		
Yes	228	70.6
No	95	29.4
Visit to Emergency department (n=228)		
Yes	137	60.1
No	91	39.9
Admitted in hospital in Past one year (n=228)		
Yes	109	47.9
No	119	52.1
Reason for visit		
Regular check up	91	39.9
Health Problem	137	60.5
Types of health services utilized		
PHC	80	35.1
Private Clinic	53	23.2
Government Hospital	95	41.7

The data reveals about health service utilization in elderly (Table 5) where Among 323 elderly individuals, 70.6% visited a healthcare facility in the past year. Among 228 respondents 60.1% of them visited emergency department care,

with 47.9% of those requiring hospitalization. Health problems were the primary reason for visits (60.1%), while 35.1% utilized primary healthcare centers, 23.2% visited private clinics, and 41.7% attended government hospital outpatient department.

Table 6: Access to Health Care Services n=323

Variables	Frequency (f)	Percent (%)
Access to medical care		
Able	228	70.6
Unable	95	29.4
Satisfaction with service utilized		
Yes	247	76.5
No	76	23.5
Distance from home		
5km or less	239	74
More than 5km	84	26

The data reveals access to health care services in (Table 6) that majority of respondents (70.6%) had access to medical whereas the respondents who had access to health services most of them (76.5%) are satisfied with the services and 74% have health care facilities of distance less than 5km.

Table 7: Barriers to access health care services n=95

Variables	Frequency (f)	Percent (%)
Reason for not accessing medical care		
Can't afford	46	48.4
Service to far	35	36.8
Too sick for seeking care	9	9.5
Need Assistance to reach health facility	5	5.3

Regarding Barriers to access health care services (Table 7) shows that nearly half of respondents (48.4%) can't afford health care services.

Table 8: Awareness of Health services among the Respondents n=323

Variables	Frequency (f)	Percent (%)
Aware of elderly services		
Yes	228	70.6
No	95	29.4
Membership of health insurance		
Yes	202	62.5
No	121	37.5

Awareness of elderly toward health services was 70.6% whereas more than half (62.5%) of respondents were aware of health insurance as shown in above Table 8.

Table 9: Association between heath service utilization with selected variables n=323

Variables	Utilization of health services		p value
	Yes (f)	No(f)	
Age (in years)			
60-69	125	37	
>70	103	58	**0.001***
Sex			
Male	124	44	0.308
Female	104	51	
Education status			
Illiterate	113	79	
Literate	115	16	0.186
Chronic diseases			
Yes	170	79	**0.001***
No	58	16	

*Test statistics; chi-square test, *p<0.05*

Age and presence of chronic disease are significantly associated with health care utilization as shown in Table no 9.

Discussion

The outcome of the current study aimed to investigate the self-reported chronic morbidities, health problems and health seeking and utilization behaviors among different wards of Itahari Sub metropolitan city Nepal. The mean age of the respondents was 71.8±7.9 years which is similar to study conducted in Pokhara where the respondents mean age was 70.2 ±8.0years.[10] Current study shows that more than half of respondents (62.5%) were male which is in contrast to study done in Biratnagar where nearly half of respondents (47%) were Female which can be due to sampling method.[12] More than half of respondents (59.4%) were illiterate which is oppose to study findings conducted in Illam district where majority of respondents (80.3%) were literate.[13] More than half of respondents (60.4%) of elderly live with their son which is in contrast to the findings of the study done in Butwal where only 27.4% were living

with their son as geographical and cultural differences can lead to this variation.[14]

The evidence from this study identified that 72.4%had previously diagnosed morbid condition among which 34.1% had multiple illness which is contrast to the findings conducted in Eastern Nepal in Sunsari district that reported prevalence of existence illness of 48.3% with 30.9% having single morbidity and 17.9% of multiple illness. [15]

In addition, 70.6% of elderly adults utilized the health services, which is supported by the findings of the study conducted in Western Nepal Pokhara where 70% reported health service utilization these similarities are due to National health policies regarding elderly populations. This high utilization rate suggests a positive trend in accessing health care among this vulnerable group.[8] However, significant variation was observed when comparing our findings to study conducted in New Delhi which shows 90% of health care utilization.[16] The findings of the present study reported higher emergency visit (60.1%) and admission rate compared to Butwal. The discrepancies can be attributed due to several factors including sample size, geographical differences. Furthermore, The data obtained in the study reported elderly received health care services in government hospital (21.4%), similar with the findings of Kaski where 20.5% visited public hospital.[17] This similarity could be attributed due to various factors such as affordability, accessibility and cultural preferences.[16] There was significant association of age and chronic illness with health service utilization which similar to study conducted in Butwal.[14,17]

Conclusion

The study revealed a high prevalence of chronic illnesses among elderly individuals, with a significant proportion experiencing multiple morbidities. While many older adults accessed healthcare services, the utilization of these services increased with age and the presence of chronic illnesses. However, high costs were a major barrier preventing some elderly individuals from accessing healthcare.

Recommendation

Continuous intervention and health education programs incorporating components like geriatric health policy, health insurance and other factors focusing on healthy ageing should be conducted to motivate elderly people for healthy behaviors, adequate health care seeking and utilization.

Conflict of interest

The author declares no any conflict of interest.

Acknowledgements

We express our sincere gratitude to Purbanchal University Faculty of Medical Sciences for providing the financial support and resources to complete this study. Researcher would like to thanks Institution Research Committee of Purbanchal University School of Health Sciences for their valuable contributions, insightful feedback, and assistance during various stages of the research preparation.

Researcher also acknowledge the participants of this study for their willingness and cooperation, which made this research possible. Special thanks to elderly participant's and community health workers whose efforts significantly contributed to the success of this work.

The study finding suggests that monthly family income, chronic disease, elderly on medication and self-rated health status are related 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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