

Original Research Article

Knowledge and practice of nurses on care of elderly patients in a tertiary care hospital: a cross-sectional study

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ABSTRACT

Background: The elderly population is continuing to increase in Nepal, leading to the need for skilled and nursing care, particularly in hospital settings. Nurses are important healthcare providers for older adults, and their knowledge and practice related to older adults and care can enhance or reduce from quality of care of elderly. The purpose of this study was to assess the knowledge and practice of care in elderly patients. The study was conducted at tertiary care hospital, Nepal.

Methods: Between November 2023 and April 2025, a cross-sectional analysis study was done at tertiary care Hospital. Using non-probability methods, 218 nurses were included in the study. Researcher developed self-administered questionnaire was used for knowledge, and researcher developed observation checklist was used to assess the practice of nurses. Using SPSS version 16, we used descriptive and inferential statistics methods for data analysis.

Results: The results showed that 89.9% of the nurses had acceptable knowledge of elderly care, while 10.1% exhibited poor knowledge. For practice, only 63.3% of the immobilised elderly patients had their position changed regularly, and only 10% received pressure ulcer care. There was no association between sociodemographic characteristics and knowledge level.

Conclusions: While most of the nursing staff had adequate knowledge about the elderly care, their practice was low in providing care, most notably pressure ulcer prevention and catheter care. The authors suggested that education and consistent use of the guidelines are needed in the elderly care setting.

Keywords: Elderly care, Knowledge, Nepal, Practice

INTRODUCTION

Like many other countries, Nepal's elderly population is rapidly increasing. According to data from 2021, there were 10.2% of the population who were sixty years old or older, which is projected to grow in the coming decades.¹ The demographic change will have an impact on health care, as older adults will have many serious health issues associated with different levels of decline in cognitive, psychological and physical functioning.² The health issues

will need to be cared for and will require specialized education and training. This indicates that health care workers will play a key role in helping and overseeing the health, safety and quality of life of older adults.² Nurses who work in hospitals are very important for taking care of elderly people directly. What they know, how they work, and what they do all affect the care they give. However, the knowledge and practice of nurses differ based on educational preparation, training, experience, and policies that promote care in various institutional settings.³

In tertiary care hospitals, elderly patients, particularly those who are dependent on medical or frailty-related reasons, require extensive care. The patient care capabilities of the nursing staff determine how well pressure sores, mobility problems, and sensory problems related to aging are managed.⁴

This study aimed to determine the knowledge of nurses about elderly care at a tertiary care hospital in Nepal and their practices in elderly care, so that future training and policies can be made to improve care for older people in Nepal.

METHODS

A hospital-based cross-sectional study was conducted at Patan Hospital, Patan Academy of Health Science, Lalitpur, Nepal between November 2023 and April 2025 to assess nurses' knowledge and practice regarding the care of elderly patients. The study population comprised staff nurses working in adult care units, including geriatric, medical, surgical, intensive care, and specialty wards. Using a non-probability convenience sampling technique, a total of 218 nurses who were available during the study period and consented to participate were enrolled. Nurses on long-term leave or maternity leave were excluded.

Data were collected using two instruments: a researcher developed structured self-administered questionnaire to assess knowledge of elderly care and researcher developed a non-participant observational checklist to evaluate nursing practices in immobilized elderly patients. Practice assessment was conducted among elderly patients identified as immobilized based on clinical records and a Braden Scale score of <15. Observations were carried out in the geriatric ward over six weeks, six days per week, between 7:00 am and 1:00 pm, with a total of 30 practice observations recorded. Following observation, nurses completed the knowledge questionnaire on the same day.

The data collection tools were developed based on literature review and validated by three subject experts. Content validity indices demonstrated acceptable validity (S-CVI =0.84 for knowledge and 0.877 for practice). Reliability testing through a pretesting among 30 nurses yielded Cronbach's alpha values of 0.727 for knowledge and 0.743 for practice instruments. Ethical approval was obtained from the institutional review committee, and informed consent was secured from all participants prior to data collection.

Data were analysed using SPSS version 16. Descriptive statistics were used to summarize sociodemographic variables, knowledge, and practice levels. Inferential analysis, including chi-square tests, was performed to examine associations between sociodemographic characteristics and knowledge level. Statistical significance was set at $p < 0.05$. Data confidentiality and quality were ensured through trained data collectors, regular supervision, and secure data storage.

RESULTS

218 nurses were included in the study. The population was 59.6% over 28 years and 40.4% under 28 years. 55.1% were married and 44.9% were unmarried. The most common educational degrees were a bachelor's degree (73.3%) and PCL nursing (26.6%). 50% of respondents lived with elderly relatives. Most respondents (60.1%) had more than five years of work experience, while 39.9% had less than five years. Only 2.2% of respondents had formal training, while 97.7% had no official training and minimal understanding of elderly care. Overall, this research shows that nurses had some life experience or previous training but little formal aged-care training (Table 1).

Table 1: Respondents' sociodemographic characteristics n=218.

Variables	Frequency	Percentage
Age (in completed years)		
Less than equal to 28 years	88	40.36
More than 28 years	130	59.63
Median age with inter quartile range (IQR) (Q1=25, Q2=50, Q3=75)		
Marital status		
Married	120	55.0
Unmarried	98	44.9
Educational level		
PCL	58	26.6
Bachelor level	160	73.3
Family Structure		
Nuclear family	128	58.7
Joint family	90	41.2
Living with elderly people in family		
Yes	109	50.0
No	109	50.0
Work experience in nursing		
Less than five years	87	39.90
Above five years	131	60.09
Formal training on care of elderly people		
Yes	5	2.2
No	213	97.7

The study revealed that 89.9% (196/218) of nurses had satisfactory knowledge, while 10.1% (22/218) demonstrated unsatisfactory knowledge of elderly care. Although most nurses possessed adequate theoretical understanding, gaps were identified in the use of essential tools like the Braden scale and timed up and go test. Despite awareness of mobility and pressure ulcer prevention, the translation of knowledge into consistent bedside care remained inadequate. These results indicate that although conceptual knowledge is strong, reinforcement through practice-based orientation and periodic evaluation is required to ensure comprehensive and effective elderly care.

Table 2: Respondents' level of knowledge regarding care of elderly patients.

Levels of knowledge	Frequency	Percentage
Unsatisfactory (<60%)	22	10.09
Satisfactory (≥60%)	196	89.9
Mean of knowledge scores in percentage =71.93±13.32		

Only 63.3% of nurses regularly changed patient positions and 10.0% provided ulcer management. Similarly, only 10.0% of immobilized elderly patients were given back care, and 63.3% had their positions changed every two hours. About 67.7% received oral care assistance. Regarding posture, 46.7% were kept in a semi-Fowler position, 26.6% on the side, 10.0% were dangling on the bed edge, and 10.0% were assisted to get out of bed. Safety measures were well-followed- side rails were applied in

100% and wheels locked in 95.65% of cases. Despite these, preventive and hygiene practices were suboptimal.

Out of 218 nurses, 196 (89.9%) showed satisfactory knowledge and 22 (10.1%) unsatisfactory knowledge. While most were well-informed, gaps persisted regarding mobility and communication care. In practice, 66.6% of immobilized elderly were given opportunities to express feelings, while 4 patients with delirium and 3 with aphasia (total 7) were excluded. This indicates nurses' awareness of emotional needs but limited training to support cognitively or speech-impaired elderly. Hence, communication-focused skill development remains necessary to strengthen holistic geriatric care.

Table 2 shows that only 10.09% had unsatisfactory level of knowledge regarding the care of elderly patients, while 89.9% had satisfactory knowledge levels. The mean knowledge score was 71.93±13.32%.

Table 3: Association between socio demographic characteristics and level of knowledge on care of elderly patients n=218.

Variables	Level of knowledge		Chi-square value	P value
	Unsatisfactory (n=22) N (%)	Satisfactory (n=196) N (%)		
Age				
Less and equal to 28 years of age	6 (6.8)	82(93.2)	1.743	0.187
More than 28 years of age	16(12.3)	114(87.7)		
Level of education				
PCL	4(6.9)	54(93.1)	2.532	0.282
Bachelor	17(10.8)	140(89.2)		
Types of family				
Nuclear	15(11.7)	113(88.3)	0.905	0.342
Joint	7(7.8)	83(92.2)		
Living with elderly people in family				
Yes	10(9.2)	99(90.8)	0.202	0.653
No	12(11.0)	97(89.0)		
Work experience in nursing				
Less and equal to five years	6(6.9)	81(93.1)	0.893	0.345
More than five years	16(12.2)	115(87.8)		
Formal training on care of elderly people				
Only five respondents had formal training on care of elderly people				

No significant association existed between sociodemographic variables and knowledge levels (Table 3). For instance, 93.2% of nurses aged ≤28 years and 87.7% aged >28 years achieved satisfactory knowledge. Likewise, 93.1% of those with PCL and 89.2% with bachelor's degrees performed satisfactorily (p=0.187 for age; p=0.282 for education). However, variation in practical adherence- side rail use (100%), wheel locking (95.65%), repositioning (63.3%)- suggests that institutional policies and supervision affect bedside performance more than demographics. Emphasis on

continuous training and monitoring is essential for consistent elderly care practice.

DISCUSSION

The purpose of this study was to discover what nurses at tertiary care hospital in Nepal understand and put into practice for older patients. The findings indicated that most of the participants (89.9%) had adequate knowledge regarding elderly care while 10.09 % had insufficient. This finding is comparable to a study conducted in Pakistan where 60.6% of nurses exhibited average knowledge

regarding elderly care, and in Ethiopia, where 69.0% of nurses had inadequate knowledge on elderly care.^{5,6} Conversely, studies from Bangladesh and Zanzibar reported lower levels of knowledge, highlighting the variability in knowledge across different regions.⁷ Despite adequate knowledge, there were still knowledge gaps regarding essential assessment tools for working with older clients. For example, during the study, a large majority of nurses (approximately two-third) were not aware of the Braden scale, chair rise test, mini-cog scale, or timed up and go (TUG) test, all critical assessment tools for assessing mobility and cognitive status in immobile geriatric patients. Therefore, it suggests that education on most of those assessments needs to occur on an ongoing basis to ensure that the knowledge and assessments become a part of clinical practice.

In terms of nursing practice, the study results indicated that psychological, cognitive, and sensory care were well developed, with 100% of patients receiving communication in the appropriate language and the opportunity for family visitation. Conversely, mobility and vitality care practices were less frequently performed; for example, only 46.7% of patients were placed in the semi-Fowler position. In addition, only 10% of patients were assessed for pressure ulcers, both of which require further improvement. These findings are consistent with another study in Nigeria which found that only 20.7% of healthcare workers encouraged older adults to eat sufficiently.⁸

No noteworthy correlation was found between sociodemographic variables (age, education, work experience, and family structure) and the level of knowledge about the care of older adults. This is in line with studies conducted in Nepal, India, Zanzibar, and Ethiopia, which found similar results.⁹⁻¹¹ The data suggests that, beyond sociodemographic factors, institutional support and continuous education are primary factors in the knowledge and application of elder care for nurses.^{12,13} Overall, the nurses know a lot about how to care for older people, but there are some problems with how they avoid movement problems and pressure ulcers.^{14,15} The study's results show that specific treatments are needed to help older people stay mobile, avoid getting pressure ulcers, and use evaluation tools in their daily care. Research should also be done on the things that make it hard to use best practices when caring for older people.

Healthcare will be affected by an ageing population.¹⁶ Older patients may have physical, psychological, and social issues that affect their health. Nurses require geriatric care skills.^{16,17} Insufficient knowledge and practice might hamper aging care, causing immobility, pressure sores, and cognitive decline.¹⁸ Future eldercare models must include interprofessional collaboration, education, and institutional support for patient safety, quality, and variation.¹⁸

This study had certain limitations. The study design was a cross-sectional study that measured at a single point of

time therefore; any changes in the trend of the study variables over time could not be assessed. The study was limited to a small sample size less than calculated; the calculated was 373 while the actual sample enrolled was total enumerative (218). The study was conducted in one hospital, and thus, the findings cannot be generalized to the larger population.

CONCLUSION

The research findings suggest that a fair number of nurses had good comprehension of elderly care; nonetheless, there were deficiencies in practice, particularly with mobility issues and the prevention of the development of pressure ulcers. The research findings show no significant association between socio-demographics and nurses' knowledge of the elderly, which suggests that institutional support or training is more responsible for nurses' knowledge and practice than their personal characteristics. Even though the nurses generally knew enough, they said they did not know about the two specific assessment tools on more than one occasion. For nurses to be able to fully care for the elderly, there is a big gap that needs to be filled with more training. This will help nurses understand how to care for the elderly better and make more progress in their education and training.

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