

Original Research Article

Assessing geriatric nursing competence in acute urban hospitals in India: a multicenter cross-sectional study

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ABSTRACT

Background: The growing elderly population in Indian hospitals underscores the need for geriatric nursing competence, even in non-specialized acute care wards. However, structured geriatric training remains uncommon in these settings. Aim was to assess geriatric nursing competence among acute care nurses in urban India and identify key influencing factors such as training, clinical experience, and institutional support.

Methods: A cross-sectional study was conducted among 210 registered nurses across three tertiary care hospitals in Delhi NCR. The geriatric nursing competence scale (GNCS) assessed four domains of competence. ANOVA and multiple regression identified associations with demographic and professional variables.

Results: Participants had a mean age of 29.6 years; 85% were female, and 60% had no prior geriatric training. The mean GNCS score was 3.2/5. Higher scores were noted in physical assessment (3.8) and medication safety (3.6). Lower scores were observed in communication and psychosocial care (2.7), interdisciplinary collaboration (2.9), and end-of-life care (2.8). Significant predictors included prior geriatric training ($\beta=0.32$, $p<0.01$), clinical experience ($\beta=0.28$, $p<0.01$), and institutional support ($\beta=0.21$, $p<0.05$).

Conclusions: Targeted training and institutional reforms are urgently needed to address cognitive, collaborative, and end-of-life care gaps.

Keywords: Acute care, Competence, Continuing education, Elderly, Geriatric nursing, India

INTRODUCTION

The rapid aging of India's population presents critical challenges to the national health system, particularly in urban acute care settings. By 2031, the elderly population is projected to reach 194 million, placing increasing pressure on already overburdened public hospitals.¹

In this context, the capacity of nurses- especially those in general medical and surgical wards- to deliver age-appropriate, evidence-based care becomes vital. Geriatric nursing competence includes not only physical care skills but also the ability to recognize atypical presentations, manage multimorbidity, and provide psychosocial and

end-of-life support. However, many nurses outside specialized geriatric units report insufficient preparation to manage older adults, resulting in missed diagnoses, medication errors, communication breakdowns, and poorly coordinated transitions of care.²

While countries such as the United States, Canada, and Australia have developed robust geriatric nursing frameworks, evidence from low- and middle-income countries (LMICs), including India, remains sparse.³ The Indian Nursing Council curriculum offers minimal dedicated geriatric content, typically integrated within adult health modules.⁴ Institutional support for elder care protocols and professional development is also lacking.⁵

To address these gaps, this study assessed geriatric nursing competence among nurses working in non-specialized acute care wards in urban India. It further explored key influencing factors- prior training, clinical experience, and institutional support- to inform educational, clinical, and policy reforms. Despite the demographic shift, few studies in India have empirically examined geriatric nursing competence, highlighting a critical gap in the evidence base.^{6,7}

Objectives

This study was conducted with the following objectives: to assess the self-reported level of geriatric nursing competence among nurses working in non-specialized acute care units. To examine the association between geriatric nursing competence and factors such as geriatric training, years of clinical experience, and institutional support. To propose evidence-based strategies for enhancing geriatric competence in acute care nursing settings.

Research questions

What is the self-reported level of geriatric nursing competence among nurses in general medical–surgical units?

How do factors such as geriatric training, years of experience, and institutional support influence geriatric nursing competence?

What strategies can be implemented at the institutional and policy level to improve geriatric competence in non-specialized acute care settings?

METHODS

Design

This study employed a descriptive cross-sectional design to assess self-reported geriatric nursing competence among nurses in non-specialized acute care settings.

Setting and participants

The study was conducted in general medical and surgical wards of three tertiary care hospitals located in Delhi NCR, India. A total of 210 registered nurses were selected using stratified random sampling based on ward type (medical versus surgical) and shift distribution.

“The study was conducted from January 2025 to March 2025 across three tertiary care hospitals in Delhi NCR”.

Inclusion criteria

Registered nurses with at least six months of continuous experience in the current unit, willingness to provide informed consent, currently employed in non-specialized

acute care wards (excluding ICU, emergency, and geriatric-specific units).

Exclusion criteria

Nurses on leave or secondment during data collection, nurses currently enrolled in post-basic geriatric or specialty training programs.

Sample size justification

The sample size was calculated using Cochran’s formula with a 95% confidence level, 5% margin of error, and an estimated competence prevalence of 50% (to ensure maximum variability). With a 10% buffer for non-responses, a target of 220 nurses was approached, and 210 valid responses were analyzed.

Ethical considerations

Ethical approval was granted by the institutional ethics committee. Written informed consent was obtained from all participants. Anonymity and confidentiality were strictly maintained, and participants were informed of their right to withdraw at any time.

Data collection instrument

The geriatric nursing competence scale (GNCS), developed by Liu et al in China, was used with permission.⁸ It is a validated tool comprising 24 items across four domains:

Physiological and functional assessment (6 items; e.g., vital signs, mobility, nutritional status, risk of falls).

Communication and psychosocial care (6 items; e.g., empathetic dialogue, managing dementia-related behaviors).

Medication safety and polypharmacy (6 items; e.g., safe administration, recognition of drug interactions).

Advocacy and interdisciplinary collaboration (6 items; e.g., ethical decision-making, team collaboration).

Each item was rated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Higher scores reflect greater perceived competence. In this study, the GNCS demonstrated strong internal consistency (Cronbach’s $\alpha=0.89$).

Data collection procedure

Structured paper-based questionnaires were distributed in person during shift changes by trained research assistants. Demographic and professional background data (e.g., age, gender, education level, and years of experience, prior geriatric training, and perceived institutional support) were also collected.

Data handling and analysis

Data were reviewed for completeness and entered into SPSS version 26. Missing values (<2%) were imputed using mean (for continuous) or mode (for categorical) substitution. Descriptive statistics summarized demographic and competence data. ANOVA and multiple linear regression identified predictors of competence. Statistical significance was set at $p<0.05$.

RESULTS

A total of 210 registered nurses participated in the study. The mean age of participants was 29.6 years ($SD\pm5.4$), and 85% were female. Notably, 60% reported no prior formal training in geriatric care.

Table 1: Participant demographics (n=210).

Variables	Value
Mean age (years)	29.6 $\pm$ 5.4
Gender (% female)	85%
No prior geriatric training	60%

Note: Data are presented as mean $\pm$ SD or percentages.
Source: Primary survey data (2025).

Table 2: Domain-wise mean competence scores on GNCS.

Domains	Mean $\pm$ SD
Physical assessment	3.8 $\pm$ 0.7
Medication administration	3.6 $\pm$ 0.8
Cognitive assessment	2.7 $\pm$ 0.9
Interdisciplinary communication	2.9 $\pm$ 0.8
End-of-life care	2.8 $\pm$ 0.9

Note: GNCS = geriatric nursing competence scale (5-point Likert). Source: Primary survey data (2025).

Table 3: Predictors of geriatric nursing competence (multiple regression analysis)

Predictor variables	Beta coefficient (β)	P value
Prior geriatric training	0.32	<0.01
Years of clinical experience	0.28	<0.01
Institutional support	0.21	<0.05

Note: Adjusted $R^2=0.39$. Source: Primary data analysis using SPSS v26.

As shown in Table 2, the highest competence was in physical assessment (mean =3.8), followed by medication administration (3.6). The lowest scores were in cognitive assessment (2.7), interdisciplinary communication (2.9), and end-of-life care (2.8). Regression analysis (Table 3, Figure 1) confirmed that prior geriatric training, clinical experience, and institutional support were significant predictors of competence ($\beta=0.32$, 0.28, and 0.21 respectively). ANOVA (Table 4) further indicated

significantly higher competence among nurses with training and ≥ 5 years of experience ($p<0.01$).

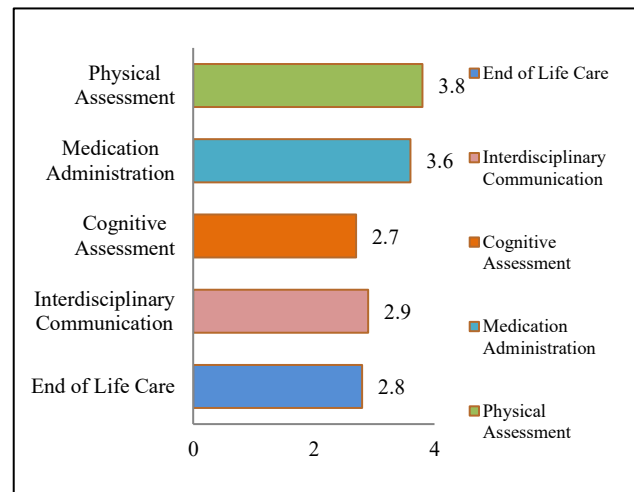


Figure 1: Domain-wise mean competence scores on the Geriatric Nursing Competence Scale (GNCS).

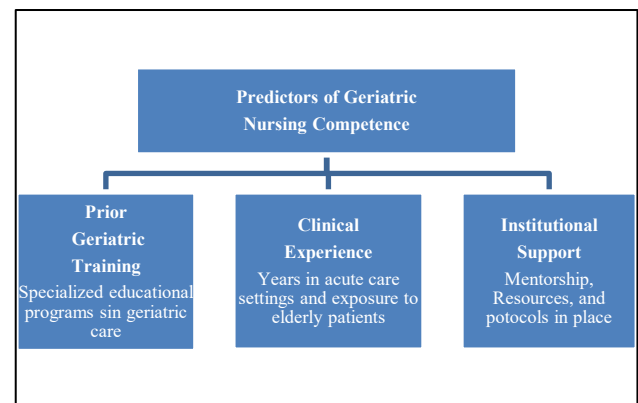


Figure 2: Predictors of geriatric nursing competence from multiple regression analysis (n=210).

Table 4: ANOVA results comparing mean competence by training and experience.

Grouping variables	F-value	P value
Prior geriatric training (yes/no)	11.47	<0.001
Clinical experience (<5 versus ≥ 5 years)	9.38	0.002

Note: One-way ANOVA conducted to compare mean GNCS scores. Source: Primary data analysis (2025).

Domain-level performance

High-scoring domains included: basic physical assessment (mean =3.8 $\pm$ 0.7), medication administration and safety (mean =3.6 $\pm$ 0.8)

Low-scoring domains included: cognitive assessment (mean =2.7 $\pm$ 0.9), interdisciplinary communication (mean =2.9 $\pm$ 0.8), end-of-life and palliative care (mean =2.8 $\pm$ 0.9).

Predictors of competence

Multivariate regression analysis revealed three significant predictors of higher competence scores: prior geriatric training ($\beta=0.32$, $p<0.01$), years of clinical experience ($\beta=0.28$, $p<0.01$), perceived institutional support ($\beta=0.21$, $p<0.05$).

DISCUSSION

This study aligns with global findings indicating moderate geriatric nursing competence among acute care nurses, with pronounced deficits in communication and psychosocial care, interdisciplinary collaboration, and end-of-life care.^{2,5} These domains are essential for managing complex geriatric syndromes such as delirium, dementia, and frailty but remain underdeveloped in many acute settings.^{1,9}

Across LMICs like Nepal, Sri Lanka, and India, studies consistently report deficits in elder care training, particularly in psychosocial and pharmacological domains.^{6,7} These gaps reflect systemic and educational shortcomings. In Indian nursing programs, areas such as dementia communication and end-of-life care are often underrepresented compared to physical care tasks.¹⁰ Nurses frequently lack exposure to palliative scenarios or interdisciplinary collaboration, leading to discomfort and reduced competence.^{3,5} Interventions like simulation-based learning, debriefings, and mentorship can bridge these gaps.¹¹

Our findings reinforce Benner's Novice-to-Expert model, which posits that clinical judgment matures through structured experience. Without targeted exposure, many nurses remain at the novice or advanced beginner stage.⁵ Competency-based education (CBE), which emphasizes deliberate practice, supports such progression but remains underutilized in Indian acute care.¹⁰

A limitation of this study is its reliance on self-reported data, which may introduce bias. Future research should incorporate objective methods such as supervisor ratings, clinical simulations, or OSCE.¹²

Lastly, institutional support emerged as a significant predictor of competence, underscoring the importance of leadership, access to geriatric guidelines, and in-service training—consistent with prior evidence-based frameworks.²

In summary, addressing geriatric competence deficits requires coordinated curriculum reform, practice redesign, and system-level leadership.

This study has certain limitations. First, the cross-sectional design restricts causal inference; longitudinal or intervention-based studies would provide stronger evidence on how training or policy changes influence competence development.^{6,7} Second, the reliance on self-

reported data may introduce bias, including social desirability and under- or overestimation of actual skills. Future studies should incorporate objective assessments such as supervisor ratings, clinical simulations, or OSCEs (objective structured clinical examinations).¹² Third, the study was conducted only in urban tertiary hospitals, which may not reflect conditions in rural, private, or primary care settings. Institutional variations in culture and resources may also influence outcomes, limiting generalizability.^{2,5}

CONCLUSION

As India's population ages rapidly, the ability of non-specialized acute care nurses to deliver safe and competent elder care is increasingly vital. This study identified critical gaps in geriatric nursing competence, particularly in cognitive assessment, interdisciplinary collaboration, and end-of-life care—areas essential to managing complex geriatric syndromes.

Aligned with sustainable development goal 3 (good health and well-being) and the WHO Decade of Healthy Ageing, these findings call for an urgent, coordinated response. Nursing councils should mandate geriatric content in pre-service curricula and licensing exams, while hospitals must implement in-service training, mentorship, and care protocols.

Ensuring elder care quality is a moral imperative. The insights and strategies proposed in this study may serve as foundational elements for developing a National Geriatric Nursing Competence Framework to enable standardized benchmarking, certification, and policy action across India.

Recommendations

To strengthen geriatric nursing competence in non-specialized acute care settings, multi-level strategies are essential. Educational reforms should integrate geriatric content into undergraduate curricula, induction programs, and continuing professional development, with emphasis on simulation-based learning and mentorship, which have been shown to improve clinical judgment and confidence in elder care. In clinical practice, hospitals should adopt structured geriatric protocols such as fall-prevention checklists and medication safety guidelines to reduce preventable adverse events. Interdisciplinary collaboration can be enhanced through routine team-based rounds, while leadership support should include appointing trained geriatric champions in each ward to mentor junior staff and promote evidence-based practices. At the policy level, incorporating geriatric competencies into nursing licensure examinations and accreditation standards will ensure national-level accountability and sustained improvements in elder care.

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Ethical approval: The study was approved by the Institutional Ethics Committee of Nirwan University Jaipur

REFERENCES

1. World Health Organization. Global report on ageism. Geneva: WHO; 2023.
2. Boltz M, Capezuti E, Fulmer T. Evidence-based geriatric nursing protocols for best practice. 5th ed. New York: Springer Publishing Company; 2016.
3. Liu YE, Norman IJ, While AE. Nursing competence in geriatric care: a cross-sectional study of nurses working in acute hospitals in China. *Int J Nurs Stud*. 2021;116:103490.
4. American Association of Colleges of Nursing (AACN). Recommended baccalaureate competencies and curricular guidelines for the nursing care of older adults. Washington, DC: AACN; 2010.
5. Kim H, Kovner CT. Factors affecting geriatric nursing competence in acute care settings. *J Nurs Schol*. 2019;51(3):276-84.
6. Ghosh S, Mitra S, Bandyopadhyay D. Assessing geriatric knowledge and self-efficacy among staff nurses in a tertiary care hospital in India. *Asian J Gerontol Geriatr*. 2022;17(2):45-52.
7. Rahman MM, Yasmin R, Islam MT. Geriatric nursing competence among hospital nurses in Bangladesh: Challenges and opportunities. *BMC Nurs*. 2021;20(1):88.
8. Bhandari P, Sharma K, Thapa S. Geriatric competence and care confidence among nurses in tertiary hospitals of Nepal: a cross-sectional study. *J Geriatr Nurs South Asia*. 2022;14(1):25-30.
9. World Health Organization. Decade of Healthy Ageing: baseline report. Geneva: WHO; 2021.
10. The Indian Nursing Council. Revised B.Sc. Nursing Syllabus (2021). New Delhi: INC; 2021.
11. National Health Mission. Operational Guidelines for Comprehensive Primary Health Care. Ministry of Health and Family Welfare, Government of India; 2018.
12. National Accreditation Board for Hospitals and Healthcare Providers. NABH Standards for Hospitals, 4th edn. Quality Council of India; 2020.

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