

Nursing Skills and Professionalism Associated with Nursing Care Quality in a Regional Public Hospital in Indonesia: A Cross-Sectional Study

Iman Nurjaman¹, Intihan Nurzaeni²

¹Faculty of Nursing, Bhakti Kencana University, Bandung, Indonesia

²Faculty of Sports and Health Education, Indonesia University of Education, Bandung, Indonesia

E-mail: iman.nurjaman@bku.ac.id¹, intihannurzaeni10@student.upi.edu²

Article History:

Received: 27 Juni 2026

Revised: 20 September 2026

Accepted: 05 Oktober 2026

Keywords: *Nursing Care Quality, Nursing Skills, Professionalism, Clinical Competence, Hospital Services.*

Abstrak: *The quality of nursing care services is an essential indicator of healthcare performance and patient satisfaction. Nurses' clinical skills and professionalism play an important role in ensuring the delivery of high-quality care. This study aimed to determine the association of nursing skills and professionalism with nursing care quality among nurses in a regional public hospital in Indonesia. A cross-sectional analytical study was conducted involving 200 inpatient nurses selected through total sampling. Data were collected using validated questionnaires measuring nursing skills, professionalism, and nursing care quality, and were analyzed using Chi-square tests and multivariate logistic regression. The results showed that nursing skills ($p < 0.001$) and professionalism ($p < 0.001$) were significantly associated with nursing care quality. Multivariate analysis demonstrated that nursing skills (OR = 99.103; 95% CI: 9.959–986.212) and professionalism (OR = 38.219; 95% CI: 3.693–395.523) were significant predictors of high-quality nursing care. These findings highlight that strengthening nursing competencies and professional development programs is essential to improve the quality of nursing services in hospital settings.*

INTRODUCTION

Nursing care services are a fundamental component of healthcare delivery and play a vital role in determining patient satisfaction and institutional reputation (Ferreira et al., 2023). Hospitals, as referral centers, must ensure the continuous improvement of service quality in all departments, especially nursing, which constitutes the largest workforce and maintains direct, sustained contact with patients (Patrician et al., 2024). In Indonesia, hospital nursing services are expected to meet national quality standards, including patient safety goals and satisfaction benchmarks (Sahputra et al., 2021). Despite these expectations, many hospitals still struggle to meet these standards. For example, the Ministry of Health requires a minimum patient satisfaction level of 95%, yet many public hospitals report figures well below this threshold (Aladwan et al., 2023).

Regional Hospital Garut, a type B non-teaching regional hospital in West Java, exemplifies this challenge. As of 2022, the hospital's patient satisfaction index stood at only 72%, while compliance with critical nursing safety indicators such as double-checking high-alert medications and hand hygiene remained below target (UOBK RSUD dr. Slamet, 2024a). The hospital's Bed Occupancy Rate (BOR) slightly increased from 57.02% in 2021 to 60.04% in 2022, indicating a growing patient load that demands efficient and high-quality nursing care (UOBK RSUD dr. Slamet, 2024b). However, early assessments reveal inconsistencies in nursing competencies, professionalism, and service delivery across different units, potentially affecting the overall quality of care and patient outcomes.

Although existing research has investigated aspects of nursing care quality, most studies have focused on either patient satisfaction or organizational structure without examining the interplay between nurse professionalism, skills, and individual characteristics (Alikari et al., 2022). Moreover, limited studies have been conducted in regional public hospitals in Indonesia, where service demands are high but resources are often constrained (Laksono et al., 2023). This lack of context-specific research creates a gap in evidence-based strategies to improve nursing service quality at the local level.

Study aims to analyze the determinant factors namely nurse professionalism, clinical skills, and individual characteristics associated with the quality of nursing care services at a Regional Public Hospital in Indonesia. The novelty of this study lies in its integrated analytical approach using multivariate methods to identify the most influential factors affecting nursing care quality in a regional hospital setting. Findings from this study are expected to provide practical insights for nurse competency development, hospital management strategies, and national efforts to improve healthcare service quality in similar institutions.

MATERIALS AND METHODS

This study was conducted at a regional public hospital in Garut Regency, West Java, Indonesia, using a quantitative method to identify factors associated with the quality of nursing care services, including nurse professionalism, clinical skills, and individual characteristics. The study population comprised all inpatient nurses working across 24 hospital wards (Classes I, II, and III), totaling 324 individuals, based on administrative records from the hospital's nursing division in 2023.

The sample size was determined using Slovin's formula with a 5% margin of error, resulting in 200 respondents. The sampling technique employed was cluster sampling, adjusted with purposive sampling based on specific inclusion and exclusion criteria defined by the researchers (Campbell et al., 2020). Inclusion criteria included nurses actively working in inpatient units with at least one year of service, while exclusion criteria included nurses on leave or assigned to administrative-only duties during the study period.

Primary data were collected using structured questionnaires designed to measure the quality of nursing care services, nurse professionalism, and nursing skills (Zarrin et al., 2023). Each instrument was developed and validated based on national nursing standards and previous studies related to hospital service quality. Secondary data were obtained from institutional reports, nursing standards documentation, and relevant literature supporting the research framework (Cheong et al., 2023).

Data processing involved several key steps: editing, coding, tabulating, and cleaning to ensure accuracy and completeness (Riyanto, 2022). The data were then presented in both narrative and tabular forms to facilitate comprehensive analysis. Statistical analysis was conducted using SPSS version 25.0, involving univariate analysis to describe variable distributions, bivariate analysis using the Chi-Square test to identify associations between independent variables and care quality, and multivariate analysis using logistic regression to determine the most dominant factors (Rahman & Muktadir, 2021).

The research design used in this study was an analytical survey with a cross-sectional

approach, conducted at a single point in time without any interventions (Wang & Cheng, 2020). This design allows for the simultaneous measurement of both independent variables (professionalism, skills, and characteristics) and the dependent variable (quality of nursing care services), facilitating the identification of statistical relationships within the observed population.

ETHICAL CLEAREANCE

This study received ethical approval from the Health Research Ethics Committee of the Faculty of Health Science and Technology, Universitas Jenderal Achmad Yani, Cimahi, under approval number 015/KEPK/FITKes-UNJANI/IV/2023.

RESULTS AND DISCUSSION

A total of 200 inpatient nurses participated in this study. The majority of nurses demonstrated good quality of nursing care services (93.5%), while 6.5% were categorized as providing sufficient care. Most respondents were classified as professional nurses (82.0%) and skilled nurses (88.5%). The majority were female (76.0%), aged 31–40 years (53.0%), held a professional nursing degree (Ners) (54.5%), had more than 10 years of work experience (63.5%), were permanent employees (59.5%), and were assigned at Clinical Level 3 (46.0%). The distribution of respondent characteristics and study variables is presented in Table I.

Table I. Respondent Overview

No	Variable	Category	F	P (%)
1	Quality of Nursing Care Services	Good	187	93.5
		Fair	13	6.5
		Total	200	100.0
2	Nurse Professionalism	Professional	164	82.0
		Less Professional	36	18.0
		Total	200	100.0
3	Nursing Skills	Skilled	177	88.5
		Less Skilled	23	11.5
		Total	200	100.0
4	Gender	Male	48	24.0
		Female	152	76.0
		Total	200	100.0
5	Age (years)	20–30	16	8.0
		31–40	106	53.0
		41–45	78	39.0
		Total	200	100.0
6	Education Level	Diploma in Nursing (D3)	43	21.5
		Professional Nurse (Ners)	109	54.5
		Bachelor's Degree (S1)	45	22.5
		Master's Degree (S2)	3	1.5
		Total	200	100.0

No	Variable	Category	F	P (%)
7	Length of Service (years)	≤ 5	27	13.5
		6–10	46	23.0
		>10	127	63.5
		Total	200	100.0
8	Employment Status	Contract Staff (PPPK/Honorary)	81	40.5
		Permanent Staff (Civil Servant)	119	59.5
		Total	200	100.0
9	Clinical Assignment Level	Clinical Level 1 (PK 1)	40	20.0
		Clinical Level 2 (PK 2)	59	29.5
		Clinical Level 3 (PK 3)	92	46.0
		Clinical Level 4 (PK 4)	9	4.5
		Total	200	100.0

The high proportion of nurses providing good-quality nursing care indicates a favorable level of service performance in the study setting. This finding is consistent with previous observations that reflective practice and critical thinking contribute significantly to improving nursing care quality in clinical settings (Azmi et al., 2024). Although demographic characteristics such as age, education level, and work experience are frequently associated with professional nursing practice, these characteristics alone do not necessarily guarantee optimal care outcomes (Juanamasta, 2022). Therefore, professional competence and behavioral attributes remain important considerations in improving nursing service quality. This demographic profile provides an important foundation for examining intrinsic factors, particularly professionalism and clinical competence, that are associated with nursing care outcomes (Nurjaman et al., 2023).

The bivariate analysis showed that nurse professionalism, nursing skills, and length of service were significantly associated with the quality of nursing care services. Nurse professionalism demonstrated a significant association ($\chi^2 = 52.013$; $p < 0.001$), indicating that nurses categorized as professional were more likely to provide good-quality care compared with less professional nurses. Similarly, nursing skills showed a strong association with care quality ($\chi^2 = 89.206$; $p < 0.001$), where skilled nurses had a higher probability of delivering quality nursing services. Length of service was also statistically associated with care quality ($\chi^2 = 6.427$; $p = 0.016$). However, gender ($p = 0.310$), age ($p = 0.131$), education level ($p = 0.304$), employment status ($p = 0.106$), and clinical assignment level ($p = 1.000$) were not significantly associated with nursing care quality (Table II).

Table II. Relationship Between Factors and Individual Characteristics of Nurses and the Quality of Nursing Care Services

No	Variable	Quality of Nursing Care			χ^2	P-value
		Good n (%)	Fair n (%)	Total n (%)		
1	Nurse Professionalism	163 (99,4%)	1 (0,6%)	164 (100)	52,013	(0,000)
		24 (66,7%)	12 (33,3%)	36 (100)		
2	Nursing Skills	176	1	177	89,206	

			(99,4%)	(0,6%)	(100)		(0,000)
		Less Skilled	11	12	23		
			(47,8%)	(52,2%)	(100)		
3	Gender	Male	43	5	48		(0,310)
			(89,6%)	(10,4%)	(100)		
		Female	144	8	83	1,594	
			(94,7%)	(5,3%)	(100)		
4	Age	20–40 years	111	11	122		(0,131)
			(91,0%)	(9,0%)	(100)		
		>40 years	76	2	78	2,284	
			(97,4%)	(2,6%)	(100)		
5	Education Level	Diploma & Bachelor (D3 & S1)	80	8	88		(0,304)
			(90,9%)	(9,1%)	(100)	1,058	
		Nurse Professional & Master (Ners & S2)	107	5	112		
			(95,5%)	(4,5%)	(100)		
6	Work Experience	≤ 5–10 years	64	9	73		
			(87,7%)	(12,3%)	(100)	6,427	(0,016)
		>10 years	123	4	127		
			(96,9%)	(3,1%)	(100)		
7	Employment Status	Permanent Staff (Civil Servant)	108	11	119		(0,106)
			(90,8%)	(9,2%)	(100)	2,610	
		Contract Staff (PPPK/Honorary)	79(97,5%)	2	81		
				(2,5%)	(100)		
8	Clinical Assignment Level	Clinical Level 1 & 2	90	9	99		(1,000)
			(90,9%)	(9,1%)	(100)	0,003	
		Clinical Level 3 & 4	97(96,0%)	4	101		
				(4,0%)	(100)		
Total			187	13	200		
			(93,5%)	(6,5%)	(100)		

These findings suggest that professional attributes and clinical competence have stronger associations with nursing care quality compared with demographic characteristics. This supports previous research emphasizing that professionalism develops through continuous professional growth, commitment, and workplace experiences (Jiang et al., 2024). Furthermore, nurse satisfaction, communication within teams, staff advocacy, and quality monitoring systems contribute to maintaining professional nursing practice and improving care quality (Choi et al., 2022). Therefore, interventions focusing on competency-based training and professional development may provide greater benefits than relying solely on formal education level or years of employment.

The multivariate logistic regression analysis identified nurse professionalism and nursing skills as significant predictors of nursing care quality. In the initial model, nurse professionalism ($p = 0.011$; OR = 25.637; 95% CI: 2.129–308.704) and nursing skills ($p = 0.001$; OR = 86.991; 95% CI: 6.502–1163.863) showed significant associations with nursing care quality, whereas length of service was not statistically significant ($p = 0.071$) and was excluded from the final model. In the final regression model, nurse professionalism remained a significant predictor of nursing care quality ($p = 0.002$; OR = 38.219; 95% CI: 3.693–395.523), while nursing skills demonstrated the strongest predictive contribution ($p < 0.001$; OR = 99.103; 95% CI: 9.959–986.212). Nurses with

higher clinical skills had approximately 99 times greater odds of providing high-quality nursing care compared with those with lower skill levels (Table III).

Table III. Stepwise Logistic Regression Modeling of Nursing Care Quality Based on Nurse Professionalism, Nursing Skills, and Length of Service

Stage	Variable	B	P-value	OR	95% CI	
					Lowest	Highest
One	Nurse Professionalism	3,244	0,011	25,637	2,129	308,704
	Nursing Skills	4,466	0,001	86,991	6,502	1163,863
	Length of Service	-2,257	0,071	0,105	0,009	1,213
Final	Constant	-10,460	0,000	0,000		
	Nurse Professionalism	3,643	0,002	38,219	3,693	395,523
	Nursing Skills	4,596	0,000	99,103	9,959	986,212
	Constant	-15,110	0,000	0,000		

The regression model showed that nurse professionalism and nursing skills contributed 28.4% to the variability in nursing care quality, while the remaining 71.6% may be explained by other factors not included in this study, such as workload, nurse-to-patient ratio, organizational support, leadership style, job satisfaction, work environment, continuing education opportunities, and institutional policies. The classification performance of the logistic regression model demonstrated an overall prediction accuracy of 97.5%, indicating that the model had good ability to classify nurses according to the quality of nursing care services.

The strong contribution of clinical skills as the dominant predictor highlights the importance of competency-based nursing practice in achieving optimal care outcomes. This finding is consistent with previous evidence indicating that variations in nursing skill mix are significantly associated with patient safety and healthcare service quality (Aiken et al., 2014). This finding is also supported by previous literature emphasizing that nurses' competencies, professional roles, and clinical practices are essential components in maintaining patient safety and improving healthcare quality (Nurjaman & Saparlina, 2023b). Furthermore, professionalism remains an essential component of nursing practice, reflecting ethical values, responsibility, commitment, and dedication toward patients (McDermott et al., 2022). Previous research has also demonstrated that nursing professionalism is multidimensional, dynamic, and culturally shaped, emphasizing empathy, altruism, and professional values as important elements of quality nursing care beyond technical competence (Cao et al., 2023).

Although nursing skills and professionalism were identified as significant predictors in the model, the relatively limited explanatory contribution suggests that variations in nursing care quality may be associated with multiple interacting factors. Therefore, improving nursing service quality requires comprehensive strategies, including competency-based training, mentoring programs, reflective practice, supportive leadership, and improvements in organizational conditions. Previous evidence also highlights the importance of leadership in improving nursing care quality, as effective leadership styles may support professional practice environments, staff motivation, and continuous quality improvement initiatives (Nurjaman & Saparlina, 2023a). Reflective thinking among clinical educators has been shown to enhance teaching quality and strengthen clinical critical thinking, highlighting the importance of supportive institutional cultures (Azmi et al., 2024). A multitiered intervention approach addressing professional development,

workplace environments, and staff well-being is essential to achieve sustainable improvements in nursing care quality (Buljac-Samardzic et al., 2020).

CONCLUSION

Based on the study findings, nursing skills and professionalism were identified as significant factors associated with the quality of nursing care services in a regional public hospital in Indonesia. Among the variables examined, nursing skills demonstrated the strongest predictive contribution in the regression model, indicating that nurses with higher competency levels were more likely to provide high-quality nursing services. These findings support the study objective of identifying factors associated with nursing care quality and highlight the importance of continuous competency development, clinical training, and professional development programs for nursing staff. Although the study model explained a proportion of the variation in nursing care quality, other individual, organizational, and system-related factors may also be associated with service outcomes. Therefore, further research involving broader healthcare settings and additional variables is recommended to provide a more comprehensive understanding of factors associated with nursing care quality.

REFERENCES

- Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Griffiths, P., Busse, R., Diomidous, M., Kinnunen, J., Kózka, M., Lesaffre, E., McHugh, M. D., Moreno-Casbas, M. T., Rafferty, A. M., Schwendimann, R., Scott, P. A., Tishelman, C., van Achterberg, T., & Sermeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *The Lancet*, 383(9931), 1824–1830. [https://doi.org/10.1016/S0140-6736\(13\)62631-8](https://doi.org/10.1016/S0140-6736(13)62631-8)
- Aladwan, M. A., Anuar, M. M., Aladwan, R. M., & Salleh, H. S. (2023). The Effect of Service Quality, Patient Trust and Hospital Reputation on Patient Satisfaction in Jordanian Public Hospital. *WSEAS TRANSACTIONS ON BUSINESS AND ECONOMICS*, 21, 410–426. <https://doi.org/10.37394/23207.2024.21.36>
- Alikari, V., Gerogianni, G., Fradelos, E. C., Kelesi, M., Kaba, E., & Zyga, S. (2022). Perceptions of Caring Behaviors among Patients and Nurses. *International Journal of Environmental Research and Public Health*, 20(1). <https://doi.org/10.3390/ijerph20010396>
- Azmi, B., Atan, A., Mohd Ali, N. A., Lee, S. P., & Zolkefli, Y. (2024). Exploring Reflective Practice In Clinical Nursing Education Among Nurse Educators. *Malaysian Journal of Medicine and Health Sciences*, 20, 165–173. <https://doi.org/10.47836/mjmhs.20.3.23>
- Buljac-Samardzic, M., Doekhie, K. D., & van Wijngaarden, J. D. H. (2020). Interventions to improve team effectiveness within health care: a systematic review of the past decade. *Human Resources for Health*, 18(1), 2. <https://doi.org/10.1186/s12960-019-0411-3>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing : JRN*, 25(8), 652–661. <https://doi.org/10.1177/1744987120927206>
- Cao, H., Song, Y., Wu, Y., Du, Y., He, X., Chen, Y., Wang, Q., & Yang, H. (2023). What is nursing professionalism? a concept analysis. *BMC Nursing*, 22(1), 34. <https://doi.org/10.1186/s12912-022-01161-0>
- Cheong, H., Lyons, A., Houghton, R., & Majumdar, A. (2023). Secondary Qualitative Research Methodology Using Online Data within the Context of Social Sciences. *International Journal of Qualitative Methods*, 22, 16094069231180160.

- <https://doi.org/10.1177/16094069231180160>
- Choi, P.-P., Lee, W.-M., Wong, S.-S., & Tiu, M.-H. (2022). Competencies of Nurse Managers as Predictors of Staff Nurses' Job Satisfaction and Turnover Intention. *International Journal of Environmental Research and Public Health*, 19(18). <https://doi.org/10.3390/ijerph191811461>
- Ferreira, D. C., Vieira, I., Pedro, M. I., Caldas, P., & Varela, M. (2023). Patient Satisfaction with Healthcare Services and the Techniques Used for its Assessment: A Systematic Literature Review and a Bibliometric Analysis. *Healthcare*, 11(5), 639. <https://doi.org/10.3390/healthcare11050639>
- Jiang, J., Liu, M., Li, Y., Gao, H., & Tian, L. (2024). Nursing Professionalism: A Scoping Review of Implementation Level, Evaluation Instruments, Influential Factors, and Intervention Strategies. *Journal of Nursing Management*, 2024(1), 7272296. <https://doi.org/10.1155/2024/7272296>
- Juanamasta, I. G. (2022). *Factors influencing quality nursing care at hospitals in Indonesia* [Chulalongkorn University]. <https://doi.org/10.58837/CHULA.THE.2022.266>
- Laksono, A. D., Wulandari, R. D., Rohmah, N., Rukmini, R., & Tumaji, T. (2023). Regional disparities in hospital utilisation in Indonesia: a cross-sectional analysis data from the 2018 Indonesian Basic Health Survey. *BMJ Open*, 13(1), e064532. <https://doi.org/10.1136/bmjopen-2022-064532>
- McDermott, I., Spooner, S., Goff, M., Gibson, J., Dalgarno, E., Francetic, I., Hann, M., Hodgson, D., McBride, A., Checkland, K., & Sutton, M. (2022). Scale, scope and impact of skill mix change in primary care in England: a mixed-methods study. *Health and Social Care Delivery Research*, 10(9), 1–148. <https://doi.org/10.3310/YWTU6690>
- Nurjaman, I., & Saparlina, I. (2023a). Leadership Style Affects Nursing Quality Improvement: Meta-Analysis Study. *ORGANIZE: Journal of Economics, Management and Finance*, 2(3), 119–134.
- Nurjaman, I., & Saparlina, I. (2023b). Systematic Literature Review: Nurses And Patient Safety. *Medic Nutricia : Jurnal Ilmu Kesehatan*, (Vol. 1 No. 3 (2023): Medic Nutricia : Jurnal Ilmu Kesehatan), 81–90. <https://garuda.kemdiktisaintek.go.id/documents/detail/3852367>
- Nurjaman, I., Setiawan, A., & Setiawati, S. (2023). Analisis faktor-faktor yang berhubungan dengan kualitas mutu pelayanan keperawatan di Rumah Sakit Umum Daerah dr. Slamet Garut. *Indonesian Nursing Journal of Education and Clinic*, 3(4). <https://ejournal.penerbitjurnal.com/index.php/health/article/view/475/416>
- Patrician, P. A., Campbell, C. M., Javed, M., Williams, K. M., Foots, L., Hamilton, W. M., House, S., & Swiger, P. A. (2024). Quality and Safety in Nursing: Recommendations From a Systematic Review. *Journal for Healthcare Quality : Official Publication of the National Association for Healthcare Quality*, 46(4), 203–219. <https://doi.org/10.1097/JHQ.0000000000000430>
- Rahman, A., & Muktadir, M. G. (2021). *SPSS: An Imperative Quantitative Data Analysis Tool for Social Science Research. V*, 300–302. <https://doi.org/10.47772/IJRISS.2021.51012>
- Riyanto, A. (2022). *Aplikasi metodologi penelitian kesehatan*.
- Sahputra, D., Lumbantobing, P., & Tuppal, C. P. (2021). Assessment of the quality of independent nursing practice in Indonesia based on total quality management indicators. *Belitung Nursing Journal*, 7(4), 294–303. <https://doi.org/10.33546/bnj.1324>
- UOBK RSUD dr. Slamet. (2024a). *Laporan Indikator Mutu Pelayanan*.
- UOBK RSUD dr. Slamet. (2024b). *Laporan Kunjungan Pasien*.
- Wang, X., & Cheng, Z. (2020). Cross-Sectional Studies. *Chest*, 158(1), S65–S71.

<https://doi.org/10.1016/j.chest.2020.03.012>

Zarrin, L., Ghafourifard, M., & Sheikhalipour, Z. (2023). Relationship between Nurses Reflection, Self-efficacy and Work Engagement: A Multicenter Study. *Journal of Caring Sciences*, 12(3), 155–162. <https://doi.org/10.34172/jcs.2023.31920>