

Evaluation of Nurses' Knowledge, Attitude, and Practice Regarding Nursing Process Implementation in a Tertiary Hospital

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ABSTRACT

Background: The nursing process (NP) is a fundamental framework for delivering systematic, patient-centered, and evidence-based nursing care that improves healthcare quality and patient outcomes. Despite its global importance, the implementation of NP remains inconsistent, particularly in low- and middle-income countries such as Bangladesh, where limited evidence exists regarding nurses' knowledge, attitudes, and practices. **Objective:** This study aimed to evaluate the knowledge, attitude, and practice of senior staff nurses regarding the nursing process and to identify factors influencing its implementation in a tertiary-level hospital. **Methods:** A descriptive cross-sectional study was conducted among 132 senior staff nurses using a self-administered structured questionnaire. The instrument assessed socio-demographic characteristics, knowledge (20 items), practice (10 items), attitude (20-item Likert scale), and enabling factors (10 yes/no items). Data were analyzed using descriptive statistics, chi-square tests, correlation, and regression analyses. **Results:** More than half of the participants (53.0%) demonstrated average knowledge, while 34.1% showed good knowledge. However, poor practice was predominant (60.6%), and attitudes were largely uncertain (51.5%), indicating a gap between theoretical understanding and practical application. Professional qualification and work experience were significantly associated with knowledge, practice, and attitude. Institutional support and continuing education emerged as key enabling factors for effective NP implementation. **Conclusion:** A significant gap persists between knowledge and the practical application of the nursing process among nurses. Strengthening continuing professional development, improving workplace resources, and fostering positive attitudes through supportive leadership are essential to enhance the implementation of the nursing process and improve the quality of nursing care in Bangladesh.

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A. Introduction

Nursing is a vital profession in healthcare that ensures the successful implementation of interventions enabling individuals to improve, maintain, or recover health, cope with health challenges, and achieve the best possible quality of life, regardless of disease or disability

(Abdullah, Hassan, & Yasin, 2025). Central to professional nursing practice is the nursing process (NP), a dynamic, systematic, client-centered, and universally accepted framework. It integrates the nursing essence, scientific basis, technology, and humanistic assumptions to encourage critical thinking, prioritization, creativity, and problem-solving in nursing care (Yilak et al., 2022; Ajemba et al., 2022).

The nursing process comprises sequential and interlinked steps—assessment, nursing diagnosis, planning, implementation, and evaluation—that guide nurses in delivering holistic and individualized care (Ajemba et al., 2022; Yilak et al., 2022). Effective implementation of NP improves patient outcomes by decreasing hospital stays, increasing patient satisfaction, minimizing care errors, and optimizing resource utilization (Yilak et al., 2022; Zerihun, Dechasa, & Robi, 2022). It provides a systematic, goal-directed framework that enhances care quality and safety, facilitates interprofessional communication, and supports evidence-based practice (Ajemba et al., 2022; Anyasor & Oluwatoyin, 2017; Vincent, 2020).

Despite its global recognition, the implementation of the nursing process remains inconsistent and underdeveloped, particularly in low- and middle-income countries (Ajemba et al., 2022; Abdullah et al., 2025). Studies from various African countries and Nigeria reveal that while nurses often acknowledge the benefits of NP, actual utilization in clinical practice is limited (Yilak et al., 2022; Ali, 2020). For example, research in Ethiopia indicates poor implementation rates across several hospitals: 52.1% in Addis Ababa, 32.7% in Arba Minch, nearly absent in Mekele, 35% in the central and North West Zones of Tigray, and 37.1% in Debre Markos and Finote Selam hospitals (Yilak et al., 2022; Zerihun, Dechasa, & Robi, 2022). Such low implementation undermines healthcare quality and contributes to service disorganization, medication errors, conflicting nursing roles, increased morbidity, mortality, and patient dissatisfaction (Yilak et al., 2022; Ajemba et al., 2022).

Similarly, in Nigeria, NP was introduced over three decades ago as a tool to promote individualized and autonomous nursing care. Yet, studies show nursing process utilization remains as low as 0% to 27.5% in some settings (Ali, 2020). This poor uptake leads to increased hospital stays and costs, and higher patient morbidity and mortality. Additionally, tertiary hospitals in Nigeria face overcrowding with cases manageable at lower-level facilities, partly due to perceived poor nursing care quality at those centers (Ali, 2020). These findings underscore the critical need to enhance knowledge and application of NP at all healthcare levels.

Barriers to effective NP implementation are multifaceted. Knowledge deficits among nurses, despite positive attitudes, remain a primary obstacle (Ajemba et al., 2022; Vincent, 2020). Studies from Nigeria, Ethiopia, and Iraqi Kurdistan report challenges including lack of standardized nursing tools, inadequate staffing, poor motivation, high workload, and limited continuing education opportunities (Abdullah et al., 2025; Ajemba et al., 2022). Moreover, nurses often perceive the nursing process as time-consuming due to extensive documentation and high patient turnover (Anyasor & Oluwatoyin, 2017). Organizational shortcomings such as insufficient administrative support and a lack of policy enforcement further hinder NP utilization (Ajemba et al., 2022; Abdullah et al., 2025).

Encouragingly, evidence shows that targeted in-service training, supportive supervision, adequate infrastructure, and strong leadership significantly improve nurses' knowledge and consistent use of NP (Ajemba et al., 2022; Vincent, 2020). Thus, addressing both educational and systemic factors is essential to enhance nursing care quality and patient outcomes.

In Bangladesh, where healthcare demands for quality, patient-centered care continue to grow, there is a paucity of data on nurses' knowledge, attitudes, and actual practice regarding the nursing process—particularly within tertiary hospitals. Given the pivotal role of nurses in healthcare delivery, assessing the current status and identifying barriers to NP implementation are critical steps toward improving care standards.

Therefore, this study aims to evaluate nurses' knowledge, attitude, and practice toward the nursing process and to identify enabling and reinforcing factors influencing its implementation at a tertiary-level hospital in Tangail, Bangladesh. The findings will provide valuable insights for policymakers, healthcare administrators, and educators to develop effective strategies for strengthening nursing care quality in Bangladesh.

B. Methods

This study employed a quantitative approach with a descriptive cross-sectional design to assess knowledge, attitude, practice, and enabling and reinforcing factors regarding the nursing process among senior staff nurses at a tertiary-level hospital in Bangladesh. The study was conducted at Kumudini Women's Medical College and Hospital, located in the Tangail district of Mirzapur, Bangladesh.

The study population consisted of 175 senior staff nurses working in various hospital wards. The sample size was calculated using a finite population correction formula with a 95% confidence level, 5% margin of error, and a 10% non-response rate, resulting in a final sample of 132 participants. A purposive sampling technique was used to select eligible senior staff nurses. Inclusion criteria included nurses who were willing to participate and present during the data collection period. Nurse managers and those who were absent or unwilling to participate were excluded from the study.

Data were collected using a self-administered structured questionnaire consisting of five sections. The first section collected socio-demographic and work-related information. The second section assessed knowledge of the nursing process using 20 multiple-choice questions, with scores ranging from 0 to 20. The third section evaluated nursing practice using 10 multiple-choice items, with scores ranging from 0 to 10. The fourth section measured attitudes using a 20-item Likert scale, with total scores ranging from 20 to 100. The fifth section assessed enabling and reinforcing factors related to the implementation of the nursing process through 10 yes/no questions, with scores ranging from 0 to 10. The questionnaire was adapted from previously validated instruments (Hagos et al., 2014; Tadie et al., 2019) and modified to suit the context of senior staff nurses working in various wards of a tertiary-level hospital in Bangladesh.

Participants were provided with information about the study and gave informed consent prior to data collection. Data were collected over a three-week period during working hours. Each participant completed the questionnaire within approximately 40 minutes. Completed questionnaires were checked immediately to ensure completeness and accuracy.

Data analysis was performed using statistical software. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize socio-demographic characteristics and study variables. Inferential analyses were conducted to examine relationships among variables. Pearson's correlation and regression analysis were used to assess relationships between knowledge, attitude, and practice. The Chi-square test was used to determine associations between categorical variables and demographic characteristics. A significance level of $\alpha = 0.05$ was applied.

Ethical approval was obtained from the Institutional Ethical Review Board (IERB) of Enam Medical College Hospital (Approval No: EMC/IERB/2024/05-03, dated September 09, 2024). Permission was also obtained from the study site. Participation was voluntary, confidentiality was maintained, and all procedures adhered to the principles of the Declaration of Helsinki.

C. Results

This section presents the findings of the study based on the analysis of data collected from 132 senior staff nurses working in a tertiary-level hospital in Tangail, Bangladesh. The results are organized into four main parts: (1) sociodemographic characteristics of participants, (2) levels of knowledge, practice, and attitude regarding the nursing process, (3) correlations

among knowledge, practice, and attitude, and (4) associations between selected demographic variables and the study variables. Descriptive and inferential statistical analyses were applied to provide a comprehensive understanding of the patterns and relationships among the variables examined.

Table 1: Frequency and Percentage Distribution of Sociodemographic Variables of Senior Staff Nurses in a Tertiary-Level Hospital in Tangail

Sociodemographic Variables		(n)	(%)
Age in Years	21–30 years	121	91.7
	31–40 years	10	7.6
	61 years and above	1	0.8
Sex/Gender	Male	9	6.8
	Female	123	93.2
Religion	Muslim	66	50.0
	Hindu	32	24.2
	Christian	32	24.2
	Buddhist	2	1.5
Marital Status	Unmarried	109	82.6
	Married	23	17.4
Professional Qualification	Diploma in Nursing	74	56.1
	Diploma in Midwifery	3	2.3
	BSc in Nursing	39	29.5
	Post Basic BSc in Nursing	5	3.8
	M.Sc. in Nursing	1	0.8
	Master of Public Health (MPH)	10	7.6
Working Position	Senior Staff Nurse	98	74.2
	Staff Nurse	34	25.8
Working Unit	Medicine Ward	55	41.7
	Surgery Ward	24	18.2
	Orthopedic Ward	7	5.3
	Pediatric Ward	12	9.1
	OB/GYN Ward	23	17.4
	Emergency	11	8.3
Years of Work Experience	Less than 2 years	103	78.0
	3–5 years	19	14.4
	6–8 years	6	4.5
	9–11 years	3	2.3
	12–15 years	1	0.8
Source of Information Regarding Nursing Process	During My Study Period	114	86.4
	Workshop	6	4.5
	Seminar and Conference	4	3.0
	Discussion with Friends	8	6.1

Table 1 presents the frequency and percentage distribution of sociodemographic characteristics of 132 senior staff nurses working in a tertiary-level hospital in Tangail. The majority of participants (91.7%) were aged between 21 and 30 years, with females comprising 93.2% of the sample. Half of the nurses identified as Muslim (50%), followed by Hindu and Christian, each at 24.2%. Most participants were unmarried (82.6%). Regarding professional qualifications, 56.1% held a Diploma in Nursing, while 29.5% had a Bachelor of Science (BSc) in Nursing. The majority worked as senior staff nurses (74.2%) and were primarily assigned to the Medicine ward (41.7%). Most respondents (78%) had less than 2 years of work experience. The primary source of information about the nursing process for most participants (86.4%) was their academic study period.

Table 2: Frequency, Percentage, Mean, and Standard Deviation of Knowledge, Practice, and Attitude Levels on the Nursing Process among Senior Staff Nurses in a Tertiary-Level Hospital

Variable	Level	Frequency (n)	Percentage (%)	Mean	SD
Knowledge	Average Knowledge	70	53.0	14.3	2.3
	Good Knowledge	45	34.1		
	Poor Knowledge	17	12.9		
Practice	Poor Practice	80	60.6	7.8	2.9
	Average Practice	30	22.7		
	Good Practice	22	16.7		
Attitude	Uncertain Attitude	68	51.5	76.4	9.2
	Positive Attitude	60	45.5		
	Negative Attitude	4	3.0		

Table 2 presents the distribution of knowledge, practice, and attitude levels regarding the nursing process, including frequency, percentage, mean, and standard deviation. More than half of the respondents (53.0%) demonstrated average knowledge, followed by 34.1% with good knowledge and 12.9% with poor knowledge (mean 14.3 ± 2.3). In terms of practice, the majority (60.6%) reported poor practice, while 22.7% had average practice and 16.7% had good practice (mean 7.8 ± 2.9). Regarding attitude, slightly more than half of the participants (51.5%) showed an uncertain attitude toward the nursing process, 45.5% exhibited a positive attitude, and 3.0% demonstrated a negative attitude (mean 76.4 ± 9.2).

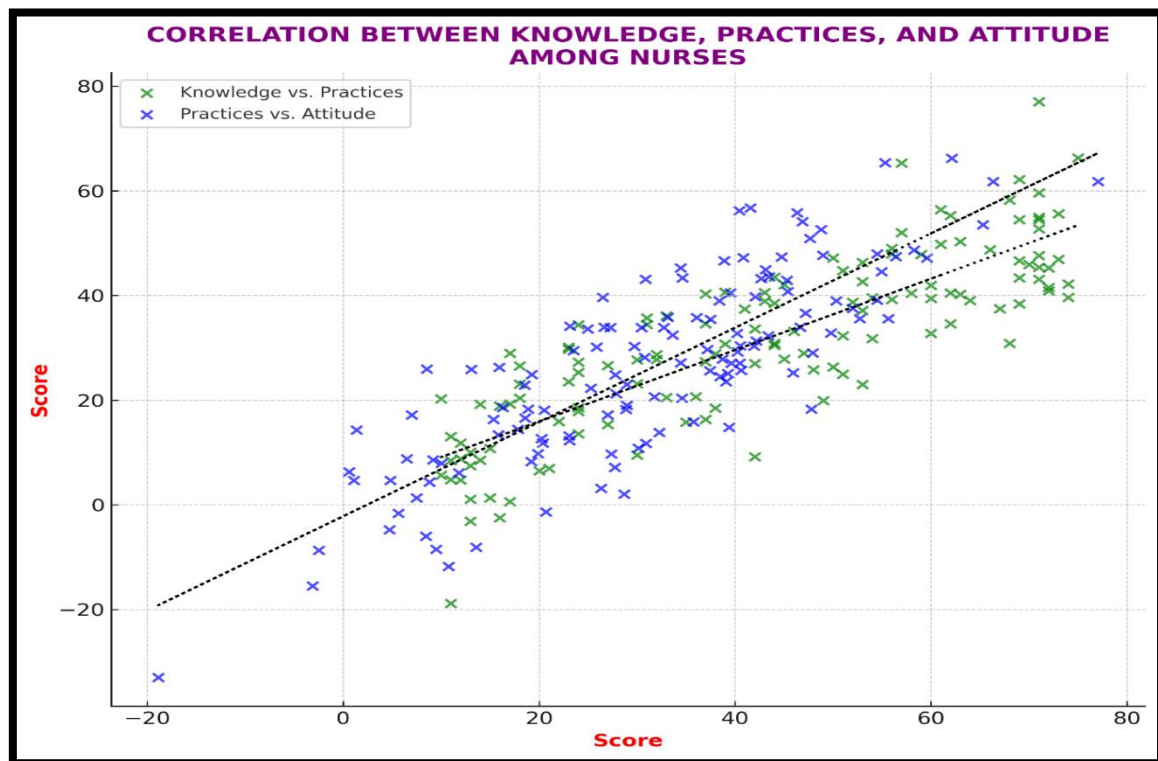


Figure 1. Shows the Relation between the levels of knowledge, practices, and attitudes of senior staff nurses on the nursing process in a tertiary-level hospital in Tangail

Figure 1 illustrates the correlation between knowledge, practice, and attitude scores among senior staff nurses regarding the nursing process. The figure presents two scatter plots with trend lines: green markers represent the relationship between knowledge and practice scores, while blue markers represent the relationship between practice and attitude scores. Both trend lines show a positive slope, indicating positive correlations between the variables.

The clustering of data points along the trend lines, particularly between practice and attitude, suggests a moderate to strong relationship. Overall, the figure visually supports the statistical findings, indicating significant positive correlations among knowledge, practice, and attitude, especially between practice and attitude.

Table 3: Association between levels of knowledge of senior staff nurses on the nursing process with their selected demographic variable

Demographic Variable	Knowledge	Practice	Attitude
Age	No significant association (p=0.22)	Significant (p=0.038)	Significant (p=0.008)
Sex/Gender	Significant (p=0.015)	Significant (p=0.028)	Significant (p<0.001)
Religion	No significant association (p=0.246)	No significant association (p=0.838)	No significant association (p=0.308)
Marital Status	No significant association (p=0.101)	Significant (p<0.001)	Significant (p=0.006)
Professional Qualification	Significant (p<0.001)	Significant (p<0.001)	Significant (p<0.001)
Working Position	No significant association (p=0.432)	No significant association (p=0.137)	Significant (p<0.001)
Working Unit	No significant association (p=0.676)	No significant association (p=0.157)	Significant (p<0.001)
Years of Work Experience	No significant association (p=0.852)	Significant (p<0.01)	Significant (p=0.004)
Source of Information on Nursing Process	No significant association (p=0.440)	No significant association (p=0.429)	Significant (p<0.001)

Table 3 shows the association between senior staff nurses' levels of knowledge, practice, and attitude regarding the nursing process and selected demographic variables. Age was not significantly associated with knowledge (p=0.22) but showed significant associations with practice (p=0.038) and attitude (p=0.008). Sex/gender was significantly associated with knowledge (p=0.015), practice (p=0.028), and attitude (p<0.001). Religion showed no significant association with knowledge (p=0.246), practice (p=0.838), or attitude (p=0.308). Marital status was not significantly associated with knowledge (p=0.101) but had significant associations with practice (p<0.001) and attitude (p=0.006). Professional qualification was significantly associated with all three domains—knowledge, practice, and attitude (all p<0.001). Working position and working unit were not significantly associated with knowledge or practice but were significantly associated with attitude (both p<0.001). Years of work experience showed no significant association with knowledge (p=0.852) but were significantly associated with practice (p<0.01) and attitude (p=0.004). The source of information on the nursing process was not significantly associated with knowledge or practice but showed a significant association with attitude (p<0.001). Overall, these findings indicate that demographic factors, particularly professional qualification and sex/gender, play an important role in influencing senior nurses' knowledge, practice, and attitudes toward the nursing process.

D. Discussion

This study examined the knowledge, practice, and attitude regarding the nursing process among 132 senior staff nurses in a tertiary-level hospital in Tangail, focusing on the associations with selected sociodemographic variables. The findings revealed a predominantly young, female nursing workforce with most nurses holding diplomas and working with limited experience. The influence of demographic variables, particularly sex/gender and professional qualification, was notable, reflecting patterns observed in other contexts (Sharma et al., 2023; Jamal et al., 2023).

The results showed that more than half of the nurses demonstrated average knowledge (53.0%) of the nursing process, with 34.1% showing good knowledge and 12.9% having poor knowledge. Similar distributions have been reported in Ethiopia (Adraro & Cherkos, 2020)

and Cameroon (Bassah et al., 2023), where knowledge was often moderate but could be improved with structured in-service training. The predominance of average knowledge in this study, rather than good knowledge as reported in Jordan (Al Awamleh et al., 2024) or Lahore, Pakistan (Yasmeen et al., 2024), suggests that while the nursing process is recognized conceptually, depth of understanding and application may be constrained by limited opportunities for advanced training. Consistent with Tadzong-Awasum and Adelphine (2021), the reliance on initial professional education as the primary source of knowledge underscores the importance of continuous professional development to sustain competency.

In contrast to the moderate knowledge findings, poor practice was most prevalent (60.6%), followed by average (22.7%) and good practice (16.7%). This imbalance between theoretical knowledge and practical execution mirrors findings from Pakistan (Iqbal et al., 2023) and Ethiopia (Zelege et al., 2021), where systemic barriers—such as workload, inadequate staffing, and lack of managerial support—limited consistent use of the nursing process in clinical settings. Jamal et al. (2023) also identified that even when nurses understood the steps of the nursing process, its application could be hindered by insufficient institutional emphasis, lack of documentation tools, and competing clinical demands.

Attitudes towards the nursing process showed that slightly more than half of the nurses (51.5%) reported an uncertain attitude, with 45.5% having a positive attitude and 3.0% a negative attitude. The predominance of uncertainty is noteworthy, as it contrasts with studies from Jordan (Al Awamleh et al., 2024) and Cameroon (Bassah et al., 2023) where positive attitudes were more common, but aligns with findings from Iraq (Abdullah et al., 2025), where nurses expressed hesitancy due to perceived irrelevance or impracticality of the nursing process in high-pressure environments. Hussain et al. (2024) argue that attitudes are strongly influenced by institutional culture, leadership support, and resource allocation, suggesting that improving workplace conditions could foster more positive perspectives.

When considered together, these findings reveal a misalignment: average theoretical knowledge, poor practical application, and uncertainty in attitude. This pattern is consistent with Sharma et al. (2023), who emphasized the interdependence of knowledge, practice, and attitude for effective nursing process implementation. Without strong, positive attitudes to drive motivation, and without supportive conditions to facilitate practice, theoretical understanding may not translate into patient care improvements. This reinforces Iqbal et al.'s (2023) conclusion that interventions must be multifaceted, addressing both skills and the systemic environment.

The demographic profile of this sample aligns with global patterns. The predominance of young (21–30 years) and female nurses (93.2%) reflects the gendered nature of nursing and the trend toward a younger clinical workforce (Sharma et al., 2023; Jamal et al., 2023). The relatively high proportion of diploma holders (56.1%) compared to BSc nurses (29.5%) is consistent with trends in resource-limited contexts such as Ethiopia (Adraro & Cherkos, 2020) and Pakistan (Iqbal et al., 2023), where diploma-level training remains the dominant qualification. Importantly, several studies—including Yasmeen et al. (2024) and Bassah et al. (2023)—have confirmed that higher educational attainment correlates with better knowledge, practice, and attitudes, underscoring the need for policy initiatives to increase access to degree-level training.

This study also found that the source of information about the nursing process significantly influenced attitudes but not knowledge or practice. Similar results were reported by Hussain et al. (2024), who noted that institutional reinforcement—through workshops, mentorship, and leadership encouragement—plays a crucial role in shaping nurses' outlook toward the process. While initial education lays the foundation for knowledge, ongoing exposure within the workplace may be critical for sustaining enthusiasm and willingness to implement the nursing process.

The absence of a significant association between age and knowledge but its relationship with practice and attitude mirrors findings from [Bassah et al. \(2023\)](#). Experienced nurses may have accumulated practical strategies and confidence over time, improving their ability to apply the process and fostering more consistent attitudes, even if theoretical knowledge does not differ significantly from younger colleagues. This supports [Zelege et al.'s \(2021\)](#) argument that experiential learning can enhance practical competencies independent of formal education level.

Professional qualification emerged as a strong predictor across all domains, in line with [Al Awamleh et al. \(2024\)](#) and [Yasmeen et al. \(2024\)](#). Higher education may provide more exposure to evidence-based practice and critical thinking skills, thereby improving not only knowledge but also the confidence and initiative to apply the nursing process. Conversely, [Abdullah et al. \(2025\)](#) reported that postgraduate nurses in Iraq were paradoxically less engaged in direct implementation, likely due to administrative responsibilities, highlighting the complex interaction between education, role, and practice opportunities.

Other sociodemographic factors, such as marital status, influenced practice and attitude but not knowledge. This finding aligns with [Jamal et al. \(2023\)](#), who suggested that personal responsibilities may affect nurses' capacity for engagement in patient care tasks. Religion was not associated with any domain, echoing findings from [Iqbal et al. \(2023\)](#) that professional standards tend to outweigh personal belief systems in guiding nursing practice.

The interrelationships between the three domains in this study—positive correlations between knowledge and practice, and between practice and attitude—are well-documented in the literature ([Sharma et al., 2023](#); [Jamal et al., 2023](#); [Yasmeen et al., 2024](#)). These relationships reinforce the notion that strategies to improve nursing process utilization should not focus solely on one domain. [Bağrıaçık and Dikmen \(2025\)](#) demonstrated that educational interventions targeting knowledge also influenced attitudes and, to a lesser extent, practice, but maximum impact was achieved when training was combined with mentorship and resource support.

The discrepancy between average knowledge and poor practice in this study suggests that barriers beyond individual competence are at play. Commonly cited obstacles include staff shortages, high patient-to-nurse ratios, lack of time, insufficient administrative support, and inadequate documentation tools ([Abdullah et al., 2025](#); [Zelege et al., 2021](#); [Hussain et al., 2024](#)). [Cachón-Pérez et al. \(2021\)](#) added that in high-intensity environments such as emergency departments, the complexity of care and environmental pressures can further hinder standardized nursing process use. [Çırlak and Akman Yılmaz \(2022\)](#) similarly noted that nurses often bypass the diagnostic phase due to perceived time constraints, compromising the integrity of the process.

Given these contextual challenges, the predominance of uncertain attitudes in this study may be interpreted as a pragmatic response rather than a lack of professional commitment. [Tadzong-Awasum and Adelphine \(2021\)](#) emphasized that in many low- and middle-income countries, nurses adapt their practices to immediate patient care demands, which may limit adherence to formal frameworks despite recognizing their value.

The implications for practice are significant, highlighting the need for a multi-pronged approach to address the identified gaps. Strengthening continuing professional development through regular refresher courses and workshops can deepen understanding beyond the initial education phase ([Sharma et al., 2023](#); [Bağrıaçık & Dikmen, 2025](#)). Improving institutional support by ensuring adequate staffing, availability of documentation tools, and supportive leadership is essential for consistent application of the nursing process ([Iqbal et al., 2023](#); [Abdullah et al., 2025](#)). Fostering positive attitudes through recognition programs, peer mentorship, and leadership modeling can enhance motivation ([Yasmeen et al., 2024](#); [Hussain et al., 2024](#)). At the policy level, encouraging progression from diploma to degree-level qualifications has shown benefits in contexts with higher competency levels ([Al](#)

Awamleh et al., 2024; Bassah et al., 2023). Overall, this study's profile of average knowledge, poor practice, and uncertain attitudes reflects a complex interplay of individual, institutional, and systemic factors. While these findings diverge from contexts with stronger practice and attitudes, they align with global evidence that successful implementation requires the convergence of educational competence, workplace resources, and professional motivation. Sustained improvement will therefore depend on targeted strategies that simultaneously address all these dimensions.

Implication and limitation

The findings of this study have important implications for nursing education, management, and policy, particularly in improving the implementation of the nursing process in clinical settings. The observed gap between average knowledge and poor practice highlights the need for structured continuing professional development programs, including regular in-service training, clinical mentorship, and supportive supervision. Institutional support, such as adequate staffing, availability of standardized documentation tools, and strong leadership commitment, is essential to facilitate consistent application of the nursing process. Additionally, integrating practical-based learning approaches in nursing education and promoting higher academic qualifications may enhance nurses' competencies, attitudes, and clinical performance. However, this study has several limitations. The use of a cross-sectional design limits the ability to establish causal relationships among variables. The study was conducted in a single tertiary-level hospital, which may restrict the generalizability of the findings to other settings. Furthermore, data were collected using self-administered questionnaires, which may be subject to response bias, including social desirability and recall bias. Future studies using multi-center designs and observational methods are recommended to provide a more comprehensive understanding of nursing process implementation.

Relevance for Practice

This study provides practical insights for improving the implementation of the nursing process in clinical settings by emphasizing the need to bridge the gap between knowledge and practice among nurses. Healthcare institutions should prioritize continuous professional development, strengthen clinical supervision, and ensure the availability of adequate resources and documentation systems to support nursing practice. Enhancing organizational support and fostering positive attitudes through leadership engagement and motivation strategies are also crucial. By addressing both individual competencies and systemic barriers, these findings can guide healthcare administrators and policymakers in developing targeted interventions to improve the quality of nursing care and patient outcomes.

E. Conclusion

This study highlights a critical misalignment between theoretical understanding, practical application, and attitudinal commitment to the nursing process among senior staff nurses in a tertiary-level hospital in Tangail. Although most participants demonstrated average knowledge, poor practice and uncertain attitudes predominated, indicating that effective implementation is influenced not only by individual competence but also by institutional and systemic factors. Professional qualification, work experience, and sources of information were identified as significant determinants across domains. These findings emphasize the need for integrated strategies, including strengthening continuing professional development, improving workplace resources, fostering a supportive professional culture, and promoting academic advancement. Consistent with global evidence, optimal utilization of the nursing process requires the convergence of educational competence, enabling environments, and professional motivation. Addressing these dimensions concurrently is essential to translate knowledge into practice and enhance the quality of patient care.

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Author Contribution

Chinna Chadayan contributed to the study conceptualization, data collection, and initial manuscript drafting. Nipul Mondal contributed to the study design, data analysis, and interpretation of the results. Melba Sahaya Sweety contributed to manuscript revision, critical review, and final approval of the manuscript. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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Declaration of Conflicting Interest

The authors declare no conflict of interest.

Declaration of Use of AI in Scientific Writing

The authors declare that generative AI and AI-assisted technologies were used to support language editing and grammatical refinement of the manuscript.

References

- Abdullah, R. Y., Hassan, K. H., & Yasin, M. M. (2025). Knowledge toward nursing process and barriers to implementing nursing process in health care system in Iraqi Kurdistan Region. *Saudi Journal of Health Systems Research*, 5(2), 79–91. <https://doi.org/10.1159/000545233>
- Adraro, Z., & Cherkos, A. (2020). Knowledge and attitude of nurses about the nursing process in selected public hospitals in South-West Ethiopia. *Advances in Nursing and Midwifery*, 30(1), 34–41. <https://doi.org/10.22037/jnm.v30i1.34285>
- Ajemba, M. N., Eze, P. N., Arene, E. C., Ugo, C. H., & Osuji, R. C. (2022). Factors that influence the implementation of nursing process among nurses in Nnamdi Azikiwe Teaching Hospital Anambra State. *Asian Journal of Research in Nursing and Health*, 5(1), 183–194. <https://journalajrn.com/index.php/AJRNH/article/view/93/186>
- Al Awamleh, R. A., Ayasreh, I. R., Khatatbeh, H. A., & AlAwamleh, A. S. (2024). Nurses' implementation of nursing process and its influencing factors: A cross-sectional study in Jordan. *Egyptian Journal of Health Care*, 15(3), 838–849. <https://doi.org/10.21608/ejhc.2024.380542>
- Ali, E. N. (2020). Outcome of nursing intervention on knowledge and use of nursing process among nurses in zonal hospitals, Rivers State, Nigeria. *International Journal of Research in Medical Sciences*, 8(11), 3856. <https://doi.org/10.18203/2320-6012.ijrms20204870>
- Anyasor, C. O., & Oluwatoyin, A. (2017). Nurses' knowledge, attitude and perceived barrier towards the implementation of nursing process at a general hospital in Lagos State, Nigeria. *International Journal of Innovative Research and Advanced Studies*, 4(8), 31–40. <https://www.ijiras.com/2017/Vol-4-Issue-8/paper-56.pdf>
- Bağrıaçık, E., & Dikmen, B. T. (2025). The effect of nursing process education on students' perceptions of nursing diagnoses. *Jurnal Keperawatan Indonesia*, 28(2), 130–140. <https://doi.org/10.7454/jki.v28i2.1445>
- Bassah, N., Epie, N. N. E., & Ngunde, P. J. (2023). Nurses' knowledge and use of the nursing process in two major hospitals in Fako, Cameroon. *Nursing Practice Today*, 10(1), 53–61. <https://doi.org/10.18502/npt.v10i1.12257>
- Cachón-Pérez, J. M., Gonzalez-Villanueva, P., Rodriguez-Garcia, M., Oliva-Fernandez, O., Garcia-Garcia, E., & Fernandez-Gonzalo, J. C. (2021). Use and significance of nursing diagnosis in hospital emergencies: A phenomenological approach. *International Journal of Environmental Research and Public Health*, 18(18), 9786. <https://doi.org/10.3390/ijerph18189786>

- Çırlak, A., & Akman Yılmaz, A. (2022). Nurses' behaviors, perceptions and diagnoses in the diagnosing phase of the nursing process within the scope of a case study: A mixed type study. *SBÜ Hemşirelik Dergisi*, 4(3), 121–128. <https://doi.org/10.48071/sbuhemsirelik.1179005>
- Hagos, F., Alemseged, F., Balcha, F., Berhe, S., & Aregay, A. (2014). Application of nursing process and its affecting factors among nurses working in Mekelle Zone Hospitals, Northern Ethiopia. *Nursing Research and Practice*, 2014, 675212. <https://doi.org/10.1155/2014/675212>
- Hussain, M., Saddique, H., & Jabeen, R. (2024). Knowledge, attitude and practices of nurses regarding nursing documentation. *Biological and Clinical Sciences Research Journal*, 2024, Article 1393. <https://doi.org/10.54112/bcsrj.v2024i1.1393>
- Iqbal, I., Kouser, S., Samreen, S., & Victor, G. (2023). Factors affecting the implementation of nursing care plans in patient care. *National Journal of Health Sciences*, 8(4), 189–194. <https://doi.org/10.21089/njhs.84.0189>
- Jamal, Z., Shaheen, G., Shaheen, A., Bibi, N., Iqbal, J., & Sultan, A. (2023). Nurses knowledge regarding nursing process and barriers in its application. *Pakistan Journal of Health Sciences*, 52–56. <https://doi.org/10.54393/pjhs.v4i07.948>
- Sharma, J., Sharma, R., Negi, R., & Jelly, P. (2023). Knowledge, practices and factors affecting in application of nursing process: A cross-sectional study. *Journal of Medical Evidence*, 4(1), 29–33. https://doi.org/10.4103/JME.JME_87_21
- Tadie, C., Feleke, A., & Debie, A. (2019). Nursing process implementation and associated factors among nurses working at West Amhara referral hospitals. *Ethiopia Journal of Health and Biomedical Sciences*, 9(1), 25–34. <https://ejol.aau.edu.et/index.php/ejhbs/article/view/7312>
- Tadzong-Awasum, G., & Adelphine, D. (2021). Implementation of the nursing process in Sub-Saharan Africa: An integrative review of literature. *International Journal of Africa Nursing Sciences*. <https://doi.org/10.1016/j.ijans.2021.100283>
- Vincent, C. C. N. (2020). Knowledge, attitude and practice of nursing process among nurses in Imo State University teaching hospital, Orlu, Imo State, Nigeria. *EC Nursing & Healthcare*, 2(6). <https://ecronicon.net/assets/ecnh/pdf/ECNH-02-00053.pdf>
- Yasmeen, R., Kausar, S., Yasmin, N., Javed, S., Kanwal, R., Haq, N. U., & Iqbal, S. (2024). Knowledge and attitude of nurses regarding the nursing process in public sector hospitals of Lahore. *Kurdish Studies*, 12(4), 1254–1261. <https://doi.org/10.53555/ks.v12i4.3141>
- Yilak, G., Getie, A., Fitwi, A., Wondmieneh, A., & Gebremeskel, T. (2022). Implementation of nursing process and its associated factor among nurses at Woldia Comprehensive Specialized Hospital, Northern Ethiopia: An institution-based cross-sectional study. *Nursing: Research and Reviews*, 12, 111–119. <https://doi.org/10.2147/NRR.S368097>
- Zelege, S., Kefale, D., & Necho, W. (2021). Barriers to implementation of nursing process in South Gondar Zone governmental hospitals, Ethiopia. *Heliyon*, 7(3), e06341. <https://doi.org/10.1016/j.heliyon.2021.e06341>
- Zerihun, E., Dechasa, A., & Robi, M. (2022). Implementation of nursing process and its' associated factors among nurses working at public hospitals of Central Ethiopia, 2020: Institutional based cross-sectional study. *Journal of Nursing Practice*, 5(1), 473–479. <https://doi.org/10.36959/545/422>