ASSESSMENT OF KNOWLEDGE AND ATTITUDE AMONG NURSES REGARDING NURSING PROCESS IN PUBLIC SECTOR HOSPITALS AT DISTRICT CHRASSADA, KHYBER-PAKHTUNKHWA, PAKISTAN: A CROSS-SECTIONAL STUDY

Original Research

Zia Ullah[1]*, Yarzaman[1], Shayan Khan[1], Mumtaz Ali[1], Sayyed Hamza[1], Muhammad Sulaim[1], Ghulam Farooq[1], Muhammad Islam[2], Kheyam Khan[2]

[1]BSN Student, Shahid College of Nursing Shabqadar Charsadda, affiliated with Khyber Medical University, Peshawar, Pakistan.

[2]Lecturer, Shahid College of Nursing Shabqadar Charsadda, affiliated with Khyber Medical University, Peshawar, Pakistan.

Corresponding Author: Zia Ullah, BSN Student, Shahid College of Nursing Shabqadar Charsadda, affiliated with Khyber Medical University, Peshawar, Pakistan, ziaullahzia096@gmail.com

ABSTRACT

Background: The nursing process is a fundamental framework that underpins professional nursing practice by promoting systematic care delivery, clinical reasoning, and evidence-based decision-making. Its effective application is closely linked with improved patient outcomes, continuity of care, and professional accountability. However, in resource-limited public sector hospitals, nurses often face organizational and workload-related challenges that may influence both their knowledge and attitudes toward the nursing process. Understanding these factors is essential for strengthening nursing practice and ensuring high-quality patient-centered care in complex healthcare environments.

Objective: The study aimed to assess nurses' knowledge and attitudes regarding the nursing process in public sector hospitals of District Charsadda.

Methods: A descriptive cross-sectional study was conducted over three months among 102 registered nurses working in public sector hospitals of District Charsadda. Participants were selected using a convenient sampling technique. Data were collected using a structured, pre-validated, and adapted questionnaire comprising demographic characteristics, 21 knowledge-related items, and 10 attitude-related items measured on a five-point Likert scale. Knowledge scores ranged from 21 to 105 and were categorized as poor, average, or good, while attitude scores ranged from 10 to 50 and were classified as unfavorable or favorable. Data were analyzed using SPSS version 22 through descriptive statistics, including frequencies, percentages, means, and standard deviations.

Results: Among the participants, 96.1% were female and 3.9% were male. More than half were aged 31–40 years (55.9%), and 75.5% had over 10 years of professional experience. Knowledge scores ranged from 45 to 94, with a mean score of 73.68 ± 1.09. An average level of knowledge was observed in 55.9% of nurses, while 37.3% demonstrated good knowledge and 6.8% showed poor knowledge. Attitude scores ranged from 22 to 44, with a mean of 30.02 ± 4.00. An unfavorable attitude toward the nursing process was identified in 55.8% of participants, whereas 44.2% exhibited a favorable attitude.

Conclusion: The study highlights that while nurses generally possess moderate knowledge of the nursing process, unfavorable attitudes toward its application remain prevalent. These findings emphasize the need for continuous professional development, institutional support, and supportive supervision to strengthen both knowledge and attitudes, ultimately enhancing the effective utilization of the nursing process in clinical practice.

Keywords: Attitude, Knowledge, Nurses, Nursing Process, Public Sector Hospitals, Professional Practice, Quality of Care.

Background

Assessing nurses' knowledge and attitudes toward the nursing process is essential for improving care quality in public sector hospitals.

Objective

Assess knowledge and attitudes of nurses regarding the nursing process in public sector hospitals in District Charsadda.

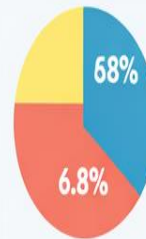## METHODS

Survey

3 Months Duration

Public Sector Hospitals

Descriptive cross-sectional survey of 102 registered nurses using convenient sampling and validated ques--

Results

Knowledge
68%
6.8%
Average 55.9%
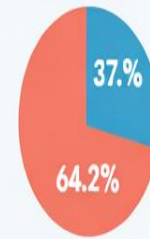
Attitude
37.%
64.2%
Favorable 54.2%

Mean knowudge score: 73.7

Attitude
55.8%
37.8%

Attitude
4.2%
44.2%

Mean knowudge score: 30.0

CONCLUSION

The majority of nurses possessed average knowledge but unfavorable attitudes toward the nursing process, highlighting the need for ongoing professional development

Volume 3 Issue 12: Knowledge and Attitude toward Nursing Process
Ullah Z et al.

INSIGHTS-JHR
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AND REHABILITATION ▪ ▪ ▪

INTRODUCTION

The nursing process is a structured, systematic approach that integrates critical thinking, patient-centered care, evidence-based practice, clinical reasoning, and professional judgment to guide nursing actions and decision-making (1). Since its formal introduction by Ida Jean Orlando in 1958, the nursing process has remained the cornerstone of professional nursing practice, providing an organized framework through which nurses assess patient needs, formulate nursing diagnoses, identify expected outcomes, plan and implement interventions, and evaluate care effectiveness (2,3). This structured methodology supports the delivery of compassionate, safe, and high-quality care by combining scientific principles with a holistic understanding of patients' physical, psychological, and social needs (4). Globally, the nursing process is recognized as a scientific and problem-solving model that enhances clinical reasoning, promotes continuity of care, and improves patient outcomes across diverse healthcare settings (5). By systematically identifying patient problems and guiding individualized interventions, the nursing process facilitates effective communication within the healthcare team and encourages active patient participation in care decisions (6). It also plays a critical role in professional nursing development by improving job satisfaction, supporting accountability, reducing legal risks, and ensuring compliance with professional and accreditation standards (7). The American Nurses Association (ANA) Standards of Professional Nursing Practice identify the nursing process as the fundamental framework that distinguishes nursing responsibilities from other healthcare disciplines and ensures consistent, competent, and ethical practice (8).

Despite its well-established benefits, the effective implementation of the nursing process remains inconsistent, particularly in resource-constrained healthcare systems. Nurses constitute the largest segment of the healthcare workforce, and the overall effectiveness of any health system is closely linked to the quality of nursing care delivered (9). Successful application of the nursing process requires adequate knowledge, a positive professional attitude, organizational support, and manageable workloads. When these elements are lacking, the nursing process may be poorly applied or underutilized, leading to fragmented care, reduced patient satisfaction, increased errors, and compromised clinical outcomes (10). In Pakistan, several studies have explored nurses' knowledge and attitudes toward the nursing process, reporting generally favorable perceptions but suboptimal application in clinical practice. Research conducted in Lahore demonstrated that although many nurses possessed good theoretical knowledge and positive attitudes toward the nursing process, their actual compliance with its implementation remained low (11). Similarly, qualitative findings from tertiary hospitals in Peshawar highlighted multiple barriers, including excessive workload, insufficient staffing, limited institutional support, and minimal involvement of nurses in clinical decision-making (12). These challenges are particularly pronounced in public sector hospitals, where high patient volumes and constrained resources may further hinder the effective use of the nursing process.

However, there is a notable lack of empirical evidence specifically addressing nurses' knowledge and attitudes toward the nursing process in public sector hospitals of District Charsadda. Given the region's high patient burden and limited healthcare resources, understanding how nurses perceive and apply the nursing process is essential for identifying educational gaps, organizational constraints, and opportunities for improving nursing practice. Without localized, data-driven evidence, it remains difficult for hospital administrators, educators, and policymakers to design targeted interventions, allocate resources effectively, and strengthen nursing standards of care in this setting. In the context of increasingly complex healthcare demands, the nursing process continues to serve as a vital guide for clinical reasoning, critical thinking, and professional decision-making. Nurses' knowledge and attitudes toward this process directly influence the quality, safety, and effectiveness of patient care, particularly in public sector hospitals where nurses play a central role in service delivery. Therefore, this study is designed to assess nurses' knowledge and attitudes toward the nursing process in public sector hospitals of District Charsadda, with the objective of generating evidence that can inform educational strategies, institutional policies, and capacity-building initiatives aimed at enhancing patient-centered, high-quality nursing care.

METHODS

A cross-sectional descriptive study design was employed to assess nurses' knowledge and attitudes regarding the nursing process. The study was conducted over a period of three months in public sector hospitals of District Charsadda, specifically the District Headquarter Hospital and the Women & Children Hospital, Rajjar. The study population comprised registered nurses working in these hospitals, with a total accessible population of 138 nurses at the time of data collection. Using the Raosoft sample size calculator with a 95% confidence interval and a 5% margin of error, a sample size of 102 nurses was determined to be adequate for the study. Participants were selected using a convenient sampling technique due to feasibility and accessibility considerations within the clinical settings. All registered nurses who were actively involved in patient care in the selected public sector hospitals and who provided informed consent were eligible to

Volume 3 Issue 12: Knowledge and Attitude toward Nursing Process
Ullah Z et al.

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH
AND REHABILITATION ■ ■ ■

participate in the study. Nurses who were on long-term leave, including maternity or study leave, during the data collection period were excluded. Additionally, nurses primarily working in administrative, managerial, or non-clinical roles were excluded, as their limited direct involvement in patient care could influence their exposure to and use of the nursing process. Data were collected using a structured, pre-validated, and adapted questionnaire derived from a previously published study in 2024 (4). The questionnaire consisted of three sections. The first section captured demographic characteristics, including age, gender, years of work experience, and hospital of employment. The second section assessed nurses' knowledge regarding the nursing process using 21 items rated on a five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5). The total possible knowledge score ranged from 21 to 105, with higher scores indicating better knowledge. Knowledge levels were categorized as poor (21–49), average (50–77), and good (78–105). The third section evaluated nurses' attitudes toward the nursing process using 10 items measured on the same five-point Likert scale. Attitude scores ranged from 10 to 50, with higher scores reflecting a more favorable attitude. Attitude levels were categorized as unfavorable (10–30) and favorable (31–50).

Ethical approval for the study was obtained from the ethical committee of the selected public sector hospitals in District Charsadda. Formal permission to conduct the study was granted by the Medical Superintendent, Deputy Medical Superintendent, and the Head of Nursing of the respective hospitals. After approval, data collection visits were arranged using official permission letters. Participation was entirely voluntary, and written informed consent was obtained from all participants prior to data collection. Participants were informed about the purpose of the study, their right to withdraw at any time without consequences, and the assurance of confidentiality and anonymity. Questionnaires were distributed and completed individually by participants within their workplace settings, and no follow-up was required as data were collected through a single administration. The collected data were entered and analyzed using the Statistical Package for the Social Sciences (SPSS), version 22. Descriptive statistical methods, including frequencies, percentages, means, and standard deviations, were used to summarize demographic variables and to describe levels of knowledge and attitudes toward the nursing process.

RESULTS

Data were analyzed from a total of 102 registered nurses working in public sector hospitals of District Charsadda. The demographic profile showed a marked predominance of female participants, with 98 nurses (96.1%) compared to 4 males (3.9%). The age distribution indicated that the largest proportion of participants fell within the 31–40-year age group, comprising 57 nurses (55.9%). This was followed by those aged 41–50 years, who accounted for 23 participants (22.5%). Nurses aged 21–30 years and those above 50 years each represented 11 participants (10.8%), reflecting a workforce largely composed of middle-aged professionals. With regard to professional experience, the majority of participants demonstrated substantial clinical exposure. Thirty-two nurses (31.4%) reported 11–15 years of work experience, while 24 nurses (23.5%) had 16–20 years of experience. Additionally, 21 nurses (20.6%) reported more than 20 years of service. Nurses with 6–10 years of experience comprised 19 participants (18.6%), whereas only 6 participants (5.9%) had 1–5 years of experience, indicating that most respondents were well-established in their professional roles. Analysis of knowledge scores related to the nursing process revealed that scores ranged from 45 to 94, with a mean score of 73.68 and a standard deviation of 1.09, suggesting clustering of scores around the mean with limited dispersion. When knowledge levels were categorized, 7 nurses (6.8%) demonstrated poor knowledge, 57 nurses (55.9%) showed an average level of knowledge, and 38 nurses (37.3%) exhibited good knowledge. Overall, the findings indicated that more than half of the participants possessed a moderate level of knowledge regarding the nursing process, while over one-third demonstrated a good level of understanding. Attitude scores toward the nursing process ranged from a minimum of 22 to a maximum of 44, with a mean score of 30.02 and a standard deviation of 4.00, indicating moderate variability in responses. Based on the predefined scoring criteria, 57 nurses (55.8%) exhibited an unfavorable attitude toward the nursing process, whereas 45 nurses (44.2%) demonstrated a favorable attitude. These results showed that a slightly higher proportion of participants held less supportive attitudes toward the nursing process compared to those with favorable perceptions.

Volume 3 Issue 12: Knowledge and Attitude toward Nursing Process
Ullah Z et al.

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AND REHABILITATION ▪ ▪ ▪

Table 1: Gender of the participants

Gender Of the Participants		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	4	3.9	3.9	3.9
	Female	98	96.1	96.1	100.0
	Total	102	100.0	100.0	

Table 2: Age of the participants

Age Of The Participants		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-30	11	10.8	10.8	10.8
	31-40	57	55.9	55.9	66.7
	41-50	23	22.5	22.5	89.2
	50 above	11	10.8	10.8	100.0
	Total	102	100.0	100.0	

Table 3: work experience years

Work experience years		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	6	5.9	5.9	5.9
	6-10	19	18.6	18.6	24.5
	11-15	32	31.4	31.4	55.9
	16-20	24	23.5	23.5	79.4
	20 above	21	20.6	20.6	100.0
	Total	102	100.0	100.0	

Table 4: Total Score Mean and Standard Deviation

Descriptive statistics for knowledge level	N	Minimum	maximum	Mean	Std. Deviation
TOTAL SCORE	102	45.00	94.00	73.6765	1.0857
Valid N	102				

Table 5: Total level of knowledge regarding nursing process

Total level of knowledge regarding NP					
		Frequency	Percent	Valid Percent	Cumulative percent
Valid	Poor	7	6.8	6.8	6.8
	Average	57	55.9	55.9	62.7
	Good	38	37.3	37.3	100
	Total	102	100	100	

Table 6: Total score means and standard deviation

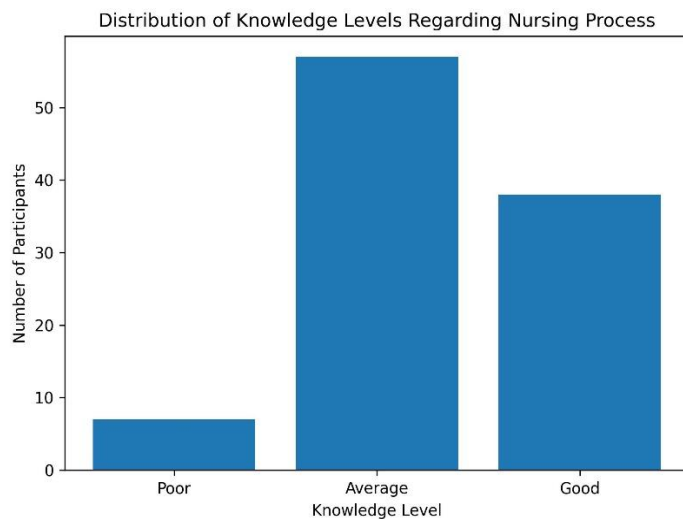| Descriptive statistics for attitude level					
	N	Minimum	maximum	Mean	Std. Deviation
TOTAL SCORE	102	22.00	44.00	30.0196	4.0049
Valid N(list wise)	102				

Figure 1 Distribution of Knowledge Levels Regrading Nursing Process
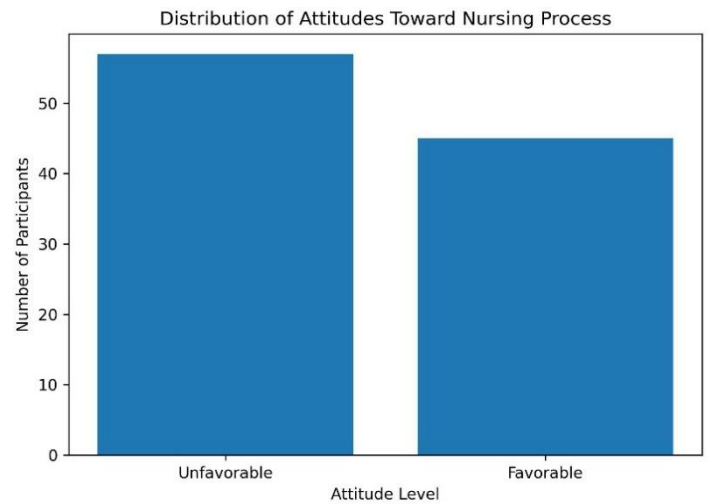
Figure 2 Distribution of Attitudes Toward Nursing Process

Volume 3 Issue 12: Knowledge and Attitude toward Nursing Process
Ullah Z et al.

INSIGHTS-JHR
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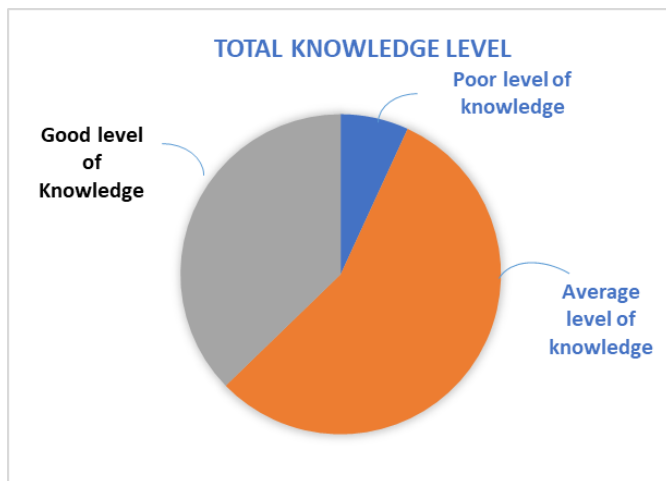AND REHABILITATION ▪ ▪ ▪
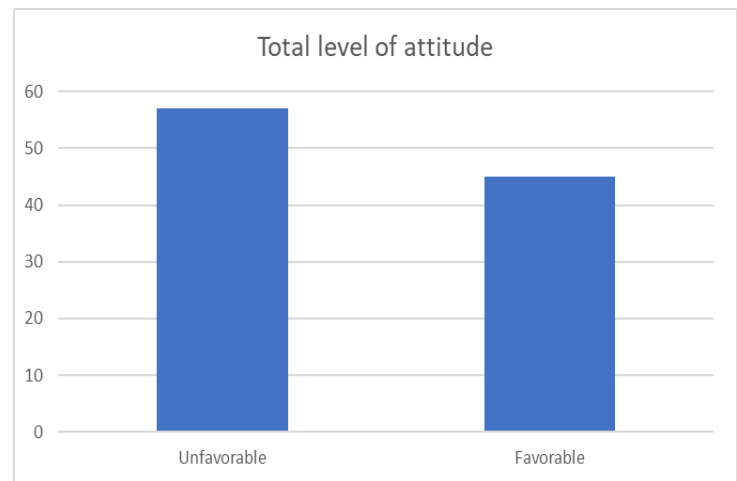
Figure 3 Total Knowledge Level

Figure 4 Total Level of Attitude

DISCUSSION

The present study was conducted to assess nurses' knowledge and attitudes toward the nursing process and revealed two key findings: the majority of nurses demonstrated an average level of knowledge, while more than half exhibited an unfavorable attitude toward its application. These findings highlight an important gap between cognitive understanding and attitudinal acceptance of the nursing process, which has direct implications for the quality and consistency of nursing care delivery. The demographic profile showed that most participants were middle-aged nurses with substantial professional experience, particularly within the 31–40-year age group. This age distribution was partially consistent with previous studies, where nurses were predominantly within early to mid-career stages, although some studies reported younger age groups as more prevalent, indicating contextual workforce differences across institutions and regions (13,14). The overwhelming predominance of female nurses aligned with existing literature, which consistently reports nursing as a female-dominated profession in Pakistan and similar healthcare settings (15,16). The high proportion of nurses with more than ten years of work experience suggested a mature and clinically exposed workforce. While experience is generally expected to enhance familiarity with structured care approaches, the present findings indicate that experience alone may not be sufficient to ensure consistent application or positive attitudes toward the nursing process. With respect to knowledge, most participants demonstrated an average level of understanding of the nursing process, with a substantial proportion also exhibiting good knowledge. These findings were in line with earlier studies reporting moderate to satisfactory knowledge levels among nurses regarding the nursing process (17,18). However, the presence of a small but notable group with poor knowledge mirrored findings from other studies that identified gaps in foundational understanding, often attributed to variations in training quality, limited refresher education, heavy workloads, and inadequate institutional reinforcement (19). The predominance of average rather than high knowledge suggests that while nurses are generally aware of the nursing process conceptually, deeper mastery and confident application may still be lacking.

In contrast to knowledge levels, attitudes toward the nursing process were less favorable, with more than half of the nurses expressing unfavorable perceptions. This pattern has also been observed in previous research, where nurses acknowledged the theoretical importance of the nursing process but viewed its routine implementation as burdensome or impractical within busy clinical environments (20). Conversely, some studies have reported predominantly positive attitudes, particularly in settings with stronger organizational support, structured documentation systems, and ongoing professional development opportunities (21). The divergence in findings across studies underscores the influence of institutional culture, staffing levels, administrative expectations, and resource availability on nurses' attitudes. In the present study context, unfavorable attitudes may reflect high patient loads, time constraints, limited supervisory encouragement, and insufficient integration of the nursing process into daily clinical workflows. The findings carry important implications for nursing practice and healthcare quality. Adequate knowledge without a supportive attitude may limit the consistent use of the nursing process, thereby reducing its potential benefits in enhancing patient-centered care, clinical reasoning, and continuity of

Volume 3 Issue 12: Knowledge and Attitude toward Nursing Process
Ullah Z et al.

INSIGHTS-JHR
INSIGHTS-JOURNAL OF HEALTH
AND REHABILITATION ■ ■ ■

care. Strengthening nurses' attitudes requires more than theoretical instruction; it necessitates organizational commitment, practical training, mentorship, and visible leadership support that frames the nursing process as a facilitative rather than burdensome tool.

This study had several strengths, including its focus on a relatively under-researched public sector setting and the inclusion of nurses with substantial clinical experience, providing a realistic reflection of routine nursing practice. The use of a pre-validated questionnaire also enhanced the reliability of data collection. However, certain limitations should be acknowledged. The cross-sectional design limited causal inferences between knowledge, attitude, and practice. The use of convenience sampling and restriction to public sector hospitals within a single district may limit the generalizability of the findings. Additionally, the study did not explore associations between demographic variables and knowledge or attitude levels, nor did it assess actual clinical practice or perceived barriers in depth. Future research would benefit from larger, multi-center studies incorporating inferential analyses to identify predictors of knowledge and attitude, as well as qualitative components to explore contextual barriers and facilitators in greater detail. Longitudinal designs could further assess the impact of targeted educational and organizational interventions on improving both attitudes and practical implementation of the nursing process (22,23). Overall, the present findings emphasize that improving nursing care quality requires not only enhancing knowledge but also fostering positive attitudes and supportive practice environments that enable nurses to fully integrate the nursing process into everyday patient care.

CONCLUSION

This study concludes that nurses working in public sector hospitals of District Charsadda generally demonstrated a moderate level of knowledge regarding the nursing process, while a noticeable proportion continued to face gaps in comprehensive understanding. More importantly, the nursing process was viewed unfavorably by many nurses, highlighting a critical disconnect between knowledge and professional attitude. These findings underscore the need for ongoing professional development, structured training, and consistent supervisory support to strengthen nurses' confidence and engagement with the nursing process. Enhancing both knowledge and attitude is essential for improving clinical decision-making, promoting patient-centered care, and ensuring the effective and sustained application of the nursing process within routine healthcare practice.

AUTHOR CONTRIBUTIONS

Author	Contribution
Zia Ullah*	Substantial Contribution to study design, analysis, acquisition of Data Manuscript Writing Has given Final Approval of the version to be published
Yarzaman	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Shayan Khan	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published
Mumtaz Ali	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Sayyed Hamza	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Muhammad Sulaim	Substantial Contribution to study design and Data Analysis

Volume 3 Issue 12: Knowledge and Attitude toward Nursing Process
Ullah Z et al.

INSIGHTS-JHR
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AND REHABILITATION ▪ ▪ ▪

Author	Contribution
	Has given Final Approval of the version to be published
Ghulam Farooq	Contributed to study concept and Data collection
	Has given Final Approval of the version to be published
Muhammad Islam	Writing - Review & Editing, Assistance with Data Curation
Kheyam Khan	Writing - Review & Editing, Assistance with Data Curation

REFERENCES

1.   Alebachew W, Yibeltal M, Mes D, Yeshambel A, Minuye B, Asnakew S, et al. Heliyon The implementation of nursing process during patient care in Ethiopia : A systematic review and meta-analysis. 2021;7(September 2020).

2.   Fernández SD, León SG, Bazán MJA, Cerro JLP Del, Marques-Vieira CMA, Rivas FJP. Application of anthropometric methods in the nursing process of nursing research. Rev Bras Enferm. 2020;73(suppl 6):e20190604.

3.   Toney-Butler TJ, Thayer JM. Nursing Process. In Treasure Island (FL); 2025.

4.   Yasmeen R, Kausar PS, Yasmin N, Javed S, Kanwal R. Knowledge & Attitude of Nurses regarding the Nursing Process in Public Sector Hospitals of Lahore. 2024;4883(May):1254–61.

5.   Jamal Z, Shaheen G, Shaheen A, Bibi N, Iqbal J, Sultan A. Nurses Knowledge Regarding Nursing Process and Barriers in its Application. Pakistan J Heal Sci. 2023;52–6.

6.   Abdullah, Rebar Yahya, Hassan KH, Yasin MM. Knowledge toward Nursing Process and Barriers to Implementing Nursing Process in Health Care System in Iraqi Kurdistan Region. Saudi J Heal Syst Res. 2025;(5):79–91.

7.   Khan K, Barolia R, Jetha ZA, Zeb A, Bibi U, Khan T, et al. Nurses' Perceptions Regarding the Use of The Nursing Process; A Qualitative Study at A Public Tertiary Care Hospital, Peshawar, Pakistan (Enhancing the Quality of Nursing Care in the Public Sectors of Pakistan). Kurd Stud. 2025;13(1):01–13.

8.   Adraro Z, Cherkos A. Knowledge and Attitude of Nurses about the Nursing Process in Selected Public Hospitals in South-West Ethiopia. Adv Nurs Midwifery. 2021;30(1):34–41.

9.   Tadzong-Awasum G, Dufashwenayesu A. Implementation of the nursing process in Sub-Saharan Africa: An integrative review of literature. Int J Africa Nurs Sci [Internet]. 2021;14:100283.

10.   Gichobi B, Gitonga PL, Marwa I. Effectiveness of the Nursing Process Training on its Knowledge Level among Nurses in Selected County Referral Hospitals in Kenya. 2023;13(October):28–37.

11.   Nahyeni Bassah, Ngueng Nti Esther Epie PJN. Nurses' knowledge and use of the nursing process in two major hospitals in Fako, Cameroon. Nurs Pract Today. 2023;10(1):53–61.

12.   Al Anazi E, Alassaf RN, Alanazi AM, Almodaife HA, Almalki RK, Ismail HH, et al. Barriers to Implementing Evidence-Based Practice among Nurses in Saudi Arabia: A Systematic Review. Saudi J Heal Syst Res. 2025;1–17.

13.   Nemati-Vakilabad R, Kamalifar E, Jamshidinia M, Mirzaei A. Assessing the relationship between nursing process competency and work environment among clinical nurses: a cross-sectional correlational study. BMC Nurs. 2025;24(1).

14.   HUSSAIN M, SADDIQUE H, JABEEN R. Knowledge Attitude and Practices of Nurses Regarding Nursing Documentation. Biol Clin Sci Res J. 2024;2024(1):1393.

15.   Adraro Z, Mengistu D. Implementation and factors affecting the nursing process among nurses working in selected government hospitals in Southwest Ethiopia. BMC Nurs. 2020;19(1):1–7.

16.   Ccn V. EC NURSING AND HEALTHCARE Research Article Knowledge, Attitude and Practice of Nursing Process among Nurses in Imo State University Teaching Hospital, Orlu, Imo State, Nigeria. 2020;4:10–6.

17.   Mohammad N, Reza S, Zahra S. The Knowledge and Attitude of Nurses Working In Emergency Departments Toward the Nursing Process. Nurs Midwifery J. 2023;21(05).

18.   Tayyib NA, Alsolami FJ. Factors Affecting the Implementation of the Nursing Process in Tertiary Hospitals : A Cross-Sectional Study. 2025;1–16.

19.   Zainab SO, State O. Determinants of Utilization of Nursing Process Among Nurses in University College Hospital , Ibadan , Oyo State , Nigeria. 2020;70:34–41.

20.   Awamleh RA Al, Ayasreh IR, Khatatbeh HA, Alawamleh AS. Nurses ' Implementation of Nursing Process and Its Influencing Factors : A Cross-Sectional Study in Jordan Nurses ' Implementation of Nursing Process and Its Influencing Factors : A Cross-Sectional Study in Jordan. 2024;(October).

21.   Sharma J, Sharma R, Negi R, Jelly P. Knowledge , Practices and Factors Affecting in Application of Nursing Process : A Cross - Sectional Study. 2023;29–33.

22.   Waris M, Javed R, Amir Z, Tasneem S, Jabeen R. Factors affecting on implementation of nursing process. Biol Clin Sci Res J. 2024;1479.

23.   Iqbal I, Kouser S, Samreen S, Victor G. Factors Affecting the Implementation of Nursing Care Plans in Patient Care Factors Affecting the Implementation of Nursing Care Plans in Patient Care. 2024;(December 2023).