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Original Research Article

FACTOR AFFECTING THE IMPLEMENTATION OF NURSING PROCESS IN TERTIARY CARE HOSPITAL

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ABSTRACT

Background: *The nursing process is a systematic and structured framework that enables nurses to deliver patient-centered, evidence-based care. Its effective implementation supports improved patient outcomes, enhances clinical decision-making, and contributes to the overall quality of healthcare services. However, institutional, professional, and patient-related factors may hinder the consistent application of the nursing process in clinical practice, particularly in resource-constrained healthcare settings.* ***Objective:*** *To assess the factors affecting the implementation of the nursing process among nurses working in a tertiary care hospital in Lahore.* ***Study Design:*** *Descriptive cross-sectional study.* ***Setting:*** *Ittefaq Hospital Trust, Lahore, Pakistan.* ***Duration of Study:*** *Over six months from February 2025 to July 2025.* ***Methods:*** *A total of 153 staff nurses were recruited using convenience sampling from a population of 250 nurses, with the sample size calculated using Slovin's formula. Data were collected using an adopted structured questionnaire consisting of demographic variables and items evaluating administrative, professional, and patient-related factors influencing the implementation of the nursing process. Data were analyzed using SPSS version 23. Descriptive statistics, including frequencies and percentages, were calculated to summarize the findings.* ***Results:*** *Most participants were aged 21–30 years (77.8%), and the majority were female (95.4%). Staff shortages were identified as a major barrier, with 45.1% of respondents strongly agreeing that insufficient staffing affected the implementation of the nursing process. Lack of cooperation among nurses was reported by 58.2% of participants as a contributing factor. More than half of the nurses (53.6%) agreed that lack of motivation negatively influenced implementation. Additionally, 35.3% of respondents disagreed that the nurse-to-patient ratio was adequate. Patient-related factors such as disease severity (47.7%) and patient participation in treatment decisions (52.9%) were also perceived to influence the application of the nursing process.* ***Conclusion:*** *The implementation of the nursing process is influenced by multiple organizational, professional, and patient-related factors. Addressing staffing shortages, strengthening administrative support, enhancing professional development opportunities, and promoting teamwork may improve the effective application of the nursing process and ultimately enhance the quality of patient care.*

Keywords: Nursing Process, Implementation, Nursing Care, Barriers

INTRODUCTION

The nursing process constitutes a systematic, evidence-based framework that guides clinical decision-making and the delivery of patient-centred care. Its effective implementation is widely recognized as fundamental to achieving optimal patient outcomes and ensuring the quality and consistency of nursing practice across healthcare settings (1,2). Despite its established theoretical foundations, translating the nursing process into routine clinical practice remains inconsistent, particularly in tertiary care hospitals, where organizational complexity, resource constraints, and hierarchical structures create multifaceted implementation challenges (1–3).

Evidence consistently demonstrates that adherence to evidence-based guidelines and structured care processes among registered nurses is suboptimal, with systematic reviews reporting adherence rates ranging from 0% to 98%, with mean rates of 50–70% (4,5). Barriers to implementation operate at multiple levels—individual, team, and organizational—and include knowledge deficits, work pressure, lack of motivational environments, inadequate leadership support, and insufficient resources (2,6). Conversely, facilitators such as effective supervision, continuing education, managerial support, and a culture of evidence-based practice have been identified as critical enablers (3,6,7).

In Pakistan, tertiary care hospitals face unique and compounding challenges that make implementing the nursing process particularly difficult. The healthcare system is characterized by severe nurse-to-patient ratio imbalances, inadequate staffing, limited access to continuing professional education, and a deeply entrenched hierarchical culture that frequently marginalizes nursing autonomy and professional identity (2,6). These structural deficiencies are compounded by insufficient institutional support for evidence-based nursing practice and a lack of standardized protocols governing nursing care delivery (3,5). Furthermore, organizational barriers—including heavy workloads, paperwork burdens, and the limited applicability of imported clinical guidelines to local contexts—further impede nurses' adherence to systematic care processes (6,7). Given these realities, a rigorous investigation into the specific factors affecting the implementation of the nursing process in Pakistani tertiary care hospitals is necessary to inform context-sensitive quality improvement strategies.

METHODOLOGY

A descriptive cross-sectional study was conducted to assess factors affecting the implementation of the nursing process among staff nurses at a tertiary care hospital in Lahore. The study was conducted at Ittefaq Hospital Trust, Lahore, over six months from February 2025 to July 2025. The target population consisted of registered staff nurses employed in different clinical departments of the hospital and directly involved in patient care. The required sample size was calculated using Slovin's formula based on a total population of 250 nurses and a margin of error of 5%. This calculation yielded a final sample size of 153 participants. Nurses working in clinical units and actively involved in patient care were eligible for inclusion in the study. Student nurses and head nurses were excluded to ensure that the sample represented nurses responsible for the practical implementation of the nursing process. Participants were recruited using convenience sampling. Data were collected using a structured questionnaire adapted from previously published studies investigating

factors influencing the implementation of the nursing process. The questionnaire consisted of two sections. The first section collected demographic information, including age, gender, marital status, educational qualification, and years of professional experience. The second section included statements assessing administrative, professional, and patient-related factors that may influence the implementation of the nursing process.

Prior to data collection, formal permission was obtained from the institutional administration and the principal of Ittefaq College of Nursing. Participants were informed of the objectives and procedures of the study, and written informed consent was obtained prior to participation. Confidentiality and anonymity were maintained throughout the research process. Participants were also informed that their participation was voluntary and that they could withdraw from the study at any time without any consequences.

The collected data were entered and analyzed using the Statistical Package for Social Sciences (SPSS) version 23.0. Descriptive statistical methods were applied to summarize the data. Categorical variables were presented as frequencies and percentages, and the findings were organized into tables to provide a clear and systematic presentation of the results. All ethical principles related to human subject research were strictly followed. The privacy and confidentiality of the participants were protected, and all collected information was used solely for research purposes. Data were securely stored and accessible only to the research team.

RESULTS

A total of 153 nurses participated in the study. Most participants belonged to the 21–30 years age group (77.8%), followed by 31–40 years (16.3%), 41–50 years (3.9%), and more than 50 years (2.0%). The majority of respondents were female (95.4%), while male nurses constituted 4.6% of the sample.

Regarding marital status, 56.9% of the participants were single, 41.2% were married, and 2.0% were widowed. In terms of educational qualification, 41.2% held a PRN/BSc degree, 30.1% had a Diploma in General Nursing, and 28.8% had Post Basic Specialization. Work experience showed that 53.6% had 1–5 years of experience, 34.6% had 5–10 years, 5.9% had 11–15 years, 4.6% had 16–20 years, and 1.3% had more than 20 years of experience (Table 1).

Administrative factors affecting implementation of the nursing process indicated that many nurses agreed that resources were allocated appropriately (38.6%) and that professional development supports implementation (44.4%). However, a considerable proportion disagreed that the nurse–patient ratio was adequate (35.3%) and that sufficient time was available for implementing the nursing process (27.5%) (Table 2).

Professional factors showed that lack of motivation (53.6%), lack of cooperation among nurses (58.2%), frequent nurse replacements (53.6%), and shortage of nursing staff (45.1%) strongly agreed were major barriers to implementing the nursing process (Table 3).

Patient-related factors indicated that patient health-seeking behavior (64.7%), patient participation in treatment decisions (52.9%), ability to maintain functioning (53.6%), collaboration with healthcare providers (46.4%), lack of compliance with treatment regimens (43.8%), and disease severity (47.7%) influenced the implementation of the nursing process (Table 4).

Table 1: Demographic Characteristics of Participants (n = 153)

Variable	Category	Frequency	Percentage
Age	21–30 years	119	77.8
	31–40 years	25	16.3
	41–50 years	6	3.9
	>50 years	3	2.0
Gender	Female	146	95.4
	Male	7	4.6
Marital Status	Single	87	56.9
	Married	63	41.2
	Widowed	3	2.0
Education Level	Diploma GN	46	30.1
	GN/Post Basic Specialization	44	28.8
	PRN/BSc	63	41.2
Work Experience	1–5 years	82	53.6
	5–10 years	53	34.6
	11–15 years	9	5.9
	16–20 years	7	4.6
	>20 years	2	1.3

Table 2: Administrative Factors Affecting Implementation of Nursing Process (n = 153)

Statement	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
Resources appropriately allocated	6 (3.9)	39 (25.5)	19 (12.4)	59 (38.6)	30 (19.6)
Allocated time sufficient	14 (9.2)	42 (27.5)	38 (24.8)	39 (25.5)	20 (13.1)
Nurse-patient ratio optimal	27 (17.6)	54 (35.3)	23 (15.0)	34 (22.2)	15 (9.8)
Documentation format available	16 (10.5)	36 (23.5)	22 (14.4)	65 (42.5)	14 (9.2)
Professional development facilitates NP	4 (2.6)	18 (11.8)	30 (19.6)	68 (44.4)	33 (21.6)
Monitoring and evaluation present	12 (7.8)	28 (18.3)	32 (20.9)	61 (39.9)	20 (13.1)

Table 3: Professional Factors Affecting Nursing Process Implementation

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Lack of motivation affects NP	2 (1.3)	12 (7.8)	25 (16.3)	82 (53.6)	32 (20.9)
Lack of cooperation among nurses	2 (1.3)	10 (6.5)	20 (13.1)	89 (58.2)	32 (20.9)
Frequent replacement of nurses	1 (0.7)	18 (11.8)	25 (16.3)	82 (53.6)	27 (17.6)
Shortage of nurses	5 (3.3)	9 (5.9)	12 (7.8)	58 (37.9)	69 (45.1)

Table 4: Patient-Related Factors Affecting Nursing Process Implementation

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Health-seeking behavior affects NP	4 (2.6)	8 (5.2)	31 (20.3)	99 (64.7)	11 (7.2)
The patient's ability to maintain functioning	1 (0.7)	14 (9.2)	28 (18.3)	82 (53.6)	28 (18.3)
Patient involvement in treatment decisions	2 (1.3)	13 (8.5)	30 (19.6)	81 (52.9)	27 (17.6)
Patient collaboration with providers	2 (1.3)	14 (9.2)	33 (21.6)	71 (46.4)	33 (21.6)
Lack of patient compliance	2 (1.3)	16 (10.5)	33 (21.6)	67 (43.8)	35 (22.9)
Severity of patient disease	6 (3.9)	16 (10.5)	32 (20.9)	73 (47.7)	26 (17.0)

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DISCUSSION

The present study revealed that the majority of participants (77.8%) belonged to the 21–30 years age group, with a predominance of female nurses (95.4%). These findings are consistent with the broader literature on nursing demographics in Pakistan. Afzal et al. (8) confirmed that the majority of nurses in Pakistan are female, noting that this reflects prevailing societal and professional norms. Similarly, Saher et al. (9) observed that female nurses constitute a substantial proportion of the healthcare workforce in Pakistan. The predominance of younger nurses with limited experience (53.6% having 1–5 years) may reflect the structural challenges of nursing workforce retention in Pakistan, where job stress and limited professional opportunities contribute to career attrition (10).

Regarding administrative barriers, a considerable proportion of nurses disagreed that the nurse–patient ratio was adequate (35.3%) and that sufficient time was available for implementing the nursing process (27.5%). Younas et al. (11) similarly identified staffing constraints, limited experience, workload pressures, and time limitations as key barriers affecting the delivery of patient-centred care in acute healthcare settings. Eekholm et al. (1) described how time constraints within hierarchical hospital structures often lead to missed or fragmented nursing care. Valiee and Salehnejad (5) further corroborated these findings by identifying work pressure, lack of facilities, and documentation burdens as major barriers to nurses' adherence to clinical practice guidelines. In the Pakistani context, Khalil and Gul (11) also reported that nurses working in critical care units frequently experience excessive workloads, which negatively affects their ability to provide structured and comprehensive nursing care.

Conversely, 44.4% of participants agreed that professional development facilitates implementation of the nursing process. This finding is supported by Cassidy et al. (2), who demonstrated that multicomponent implementation strategies incorporating educational meetings and continuing professional development can improve professional practice outcomes. Similarly, Pereira et al. (6) identified educational interventions and supportive organizational cultures as important strategies for promoting adherence to clinical practice guidelines among healthcare professionals.

Professional barriers were identified as a prominent factor in the present study. Lack of motivation (53.6%), lack of cooperation among nurses (58.2%), frequent nurse replacements (53.6%), and nursing staff shortages (45.1% strongly agreed) emerged as major impediments to the effective implementation of the nursing process. Mohamed et al. (12) demonstrated a significant relationship between nurse motivation and patient outcomes, emphasizing that motivated nurses tend to provide higher-quality care. Ominyi and Agom (13) similarly identified motivation, workload, and resource availability as central determinants influencing evidence-based practice implementation in nursing. In Pakistan, Nawaz et al. (14) highlighted that the shortage of nurses remains a persistent challenge within the healthcare system, further exacerbating the professional barriers faced by nursing staff. The lack of inter-nurse cooperation observed in this study also aligns with previous research emphasizing the role of organizational culture and teamwork in promoting evidence-based nursing practice. Eekholm et al. (1) highlighted that hierarchical workplace cultures and poor interdisciplinary collaboration can hinder the consistent application of evidence-based care. Likewise, Valiee and Salehnejad (5) found that motivational environments, supportive supervision, and professional encouragement are key facilitators of guideline adherence among nurses.

Patient-related factors also played a significant role in influencing the implementation of the nursing process. Health-seeking behaviour (64.7%), patient participation in treatment decisions (52.9%), and noncompliance with treatment regimens (43.8%) were identified as important determinants. Younas et al. (10) noted that sociocultural factors and delayed health-seeking behaviour can limit nurses' ability to deliver individualized and patient-centred care. Similarly, Abdi et al. (15) identified several patient-related barriers—including limited awareness of their role in healthcare, reluctance to question healthcare providers, and cultural constraints—that impede patient engagement in healthcare systems across the Eastern Mediterranean Region.

Ahmad et al. (16) reported that in Pakistan, insufficient patient education and limited understanding of medical procedures can hinder the implementation of standardized clinical protocols. Alkhaibari et al. (17) further demonstrated that the implementation of patient-centred care in the Middle East and North Africa region is strongly influenced by cultural factors, social norms, and patients' expectations regarding healthcare delivery.

Collectively, the findings of the present study corroborate and extend the existing literature by demonstrating that administrative, professional, and patient-related factors interact to impede the effective implementation of the nursing process in tertiary care hospitals in Pakistan. Addressing these challenges requires context-specific strategies that strengthen nursing workforce capacity, improve professional development opportunities, foster supportive organizational cultures, and enhance patient education and engagement in healthcare decision-making.

CONCLUSION

A range of organizational, professional, and patient-related factors influences the implementation of the nursing process in tertiary care hospitals. Staff shortages, inadequate nurse-to-patient ratios, lack of motivation, limited cooperation among healthcare professionals, and patient-related challenges were identified as key barriers. Strengthening administrative support, improving staffing levels, and promoting continuous professional education may improve the effective implementation of the nursing process and enhance the quality of patient care.

DECLARATIONS

Data Availability Statement

All data generated or analysed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department Concerned. (IRBEC-ICN-0348/25)

Consent for publication

Approved

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Not applicable

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTION

SITARA ASHRAF(Student)

Conceived the study, coordinated data collection, performed analysis, and prepared the first draft of the manuscript

Provided academic supervision, contributed to study design and critically reviewed the manuscript

SOBIA YASIN (Student)

Assisted in data collection, literature review, and manuscript preparation

SAHER FAQIR (Student)

Participated in data acquisition, data entry and results organization
GHUZALA ANWAR (Assistant Professor)
Contributed to survey administration, documentation and preliminary analysis
HUMAIRA SADDIQUE (Assistant Professor)
Assisted in compilation of results, referencing and proofreading
IQRA YASIN (Principal)
Provided academic supervision, contributed to study design and critically reviewed the manuscript

All authors read and approved the final version of the manuscript.

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