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)

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Abstract
Background: The Nursing Process (NP) is a comprehensive approach to care, integrating nursing intuition, goal-oriented tasks, patient-centered care, critical thinking, and evidence-based practices (EBP). It aims to enhance patient outcomes and well-being by identifying, treating, and preventing health problems. Widely acknowledged as a valuable instrument in healthcare, it emphasizes the crucial function of nursing. This study filled the gap in the literature by exploring nurses' perspectives on the utilization of the NP in Pakistan.
Purpose: The study explored the nurses' perceptions regarding the nursing process and identified the barriers and facilitators to using the nursing process in a public sector tertiary care hospital in Peshawar, Pakistan.
Methods: An exploratory descriptive qualitative study was conducted, employing a purposeful recruitment strategy with fifteen participants selected to achieve data saturation. Data were collected through in-depth interviews and subsequently analyzed using manual content analysis.
Finding(s): Five themes emerged: Nursing Process from the Nurses' Lens, Ramifications of the Nursing Process, Enabling Factors to Practice the Nursing Process, Hindrances in the Application of the Nursing Process, and Nurses' Recommendations to Enhance the Nursing Process Integration. Nurses in the public sector value the NP in patient care because of its positive ramifications but cannot apply it, due to barriers like burdensome, inadequate organizational support, and lack of autonomy in the decision-making process.
Conclusion: This research emphasized the importance of the NP in nursing care in Pakistan's public sector. Despite being aware of the potential advantages of the NP, nurses encounter numerous obstacles that prevent them from using it. It is imperative to tackle these obstacles to optimize the potential of the NP and elevate the standard of patient care within Pakistan's public healthcare infrastructure.

Keywords: Nurses, Nursing Process, Utilization, Barriers, Facilitators, Pakistan

Reference for full thesis
Full theses are available as in grey literature form on the given reference (Kashif Khan et al., 2023).

Introduction
The nursing process is a practical tool guiding nurses' critical thinking for independent decision-making, crucial in addressing clients' needs and facilitating healing (Alfaro-Lefevre, 2006). Globally, the nursing process has been extensively recognized as a valuable scientific instrument and a tactic for guiding nursing practice that helps to uphold the quality of nursing care (Gazari et al., 2020). Moreover, nurses utilize this process for better patient outcomes, including a reduction in the length of patients' stay and a decrease in mortality and morbidity rates (Gazari et al., 2020).
As we all nursing professionals know and the literature highlighted, the nursing process is a core component of various theoretical and practical nursing courses, embedded in the nursing curriculum (Bayih et al., 2021). However, graduating from nursing schools, where the nursing process is taught, doesn't automatically qualify individuals to implement it in their

professional settings (Lotfi et al., 2020). Furthermore, Lotfi et al. (2020), called attention to, that its successful implementation is influenced by diverse individual and management factors.

In 1958, nurse theorist Ida Jean Orlando established NP, followed by evidence-based practice, client-centred, and goal-oriented tasks (Toney-Butler & Thayer, 2022). Assessment, diagnosis, planning, implementation, and evaluation" comprise the recent description of NP as a systemic and dynamic method to provide nursing services to patients, with recording and documentation at every level, the numerous steps assist in organizing and prioritizing patient care (Gebeyehu Yazew et al., 2020).

Nurses are the most essential pillar of the healthcare system. They provide approximately 80% of the healthcare services in hospitals in Southeast Ethiopia and spend most of the time with patients besides other healthcare professionals (Darega et al., 2016). NP has been implemented as a standard for the quality of nursing care in healthcare systems in most developed countries (Zamanzadeh et al., 2015). Additionally, effective utilization of the NP enables the best outcomes essential for creating strong nurse-patient relationships. Consequently, patients' health conditions improve tremendously (Bayih et al., 2021). While using the NP, nurses can communicate more effectively about patient care, which promotes the quality of nursing care, worldwide (Osman et al., 2021). Moreover, through the use of the NP, nurses can plan and implement patient care more effectively and achieve better patient outcomes (Semachew, 2018). In other words, it provides a framework for the nurse to take care of a patient's condition (Meg Gulanick, 2007). Therefore, nurses utilize the NP for better patient outcomes, including reducing the length of hospital stay and mortality and morbidity rates (Eletu, 2022).

Applying the NP in practical care is essential and needs to be implemented; however, the perception is that it is tedious and unnecessary. If nurses do not value and do not use the nursing process, they might infer based on a medical diagnosis rather than rationale Nursing Process steps (Adraro & Mengistu, 2020). Numerous individual studies have been carried out recently, all around the world, to assess the degree of nursing process implementation. Studies carried out, for instance, in Kenya revealed low levels of NP implementation in the nation. In addition, the overall rate of nursing process adoption was 50.8% in Iran, 57.1% in Nigeria, 81.77% in Brazil, and 98% in Sweden (Inger Jansson et al., 2010; Kamau et al., 2016; Lotfi et al., 2020; Siemuri et al., 2014). In Sweden, 137 nurses were recruited for the study; 98 % were executing NCP in patient care. This study concluded that experienced nurses could implement NCP in their care easily. The main factor behind the 98 % implementation of NCP was easy to understand and follow (I. Jansson et al., 2010).

NP is also a vital care standard that is increasingly necessary for decision-making as it considers the patients' psychological, sociocultural, spiritual, and economic dimensions (Wagoro et al., 2015). Nurses face challenges in developing the Nursing Process, particularly in nursing diagnosis, prioritizing nursing problems, and evaluation (Zamanzadeh et al., 2015). It is also affirmed that substantial perceived barriers hinder NP implementation in a clinical setting, like insufficient human and material resources, lack of supervision, demotivation by the hospital management, and stressful working conditions (Grace et al., 2022). Therefore, it was important to explore the nurses' perceptions regarding the use of the NP and to identify the barriers and facilitators to its usage in the Pakistani public sector. This may eventually help the policymakers to act for the advancement of the profession, and quality care.

Method

This exploratory descriptive qualitative study was conducted with the public bedside nurses at Hayatabad Medical Complex (HMC), Peshawar, Pakistan. The study protocol was approved by the Institutional Review Ethical Board of HMC (IREB Approval Number: 1171), and the Ethical Review Committee (ERC Approval Number: 2023-8461-24345) of the Aga Khan University, Karachi, Pakistan (See Supplementary Figure No 1 & 2). Written informed consents were obtained from all participants n Urdu and English (See Supplementary Figure No 3). Fifteen bedside registered nurses were recruited through purposive sampling. Data were collected in an in-person setting from bedside registered nurses through semi-structured interviews using an interview guide (See Supplementary Figure No 4 For Demographic Form, and Semi Structure Interview Guide).

The data collection process began with securing approvals from the Institutional Review Ethical Board of the Public Sector (IREB). Subsequently, permission letters were obtained from the medical director and nursing director of the public sector (See Supplementary Figure Numbers 5, and 6). After that, the IREB approval letter and Permission letters were submitted for Ethical review committee approval of the Aga Khan University. Upon approval, Pilot interviews were conducted with two participants to refine the approach, the main purpose of the pilot study was to determine the clarity and relevance of the questions in the interview guide and to experience the interviewing process. Participants were recruited upon the eligibility criteria, then presented with written informed consent, and with their agreement, the interviews were tape-recorded. The interviews proceeded until saturation was achieved.

The inclusion criteria for participant selection included bedside registered nurses with a minimum of one year of experience at Hayatabad Medical Complex. Both male and female nurses were eligible for inclusion. Conversely, exclusion criteria encompassed nurses with less than one year of bedside experience, those who had recently experienced trauma, and individuals who had transitioned from a bedside role to a different job position.

Data were analyzed through the qualitative analysis approach proposed by (Creswell, 2013) the process of analysis started with organizing the data and continued till the Validation of the Findings. To maintain the reliability of the qualitative research findings, the researchers employed the technique of data triangulation. Various validation approaches were used to assess and verify the research's quality, including credibility, transferability, dependability, and conformability (Lincoln & Guba, 1985). Moreover, to enhance the applicability and reliability of the study, thorough details about the study context, participants, research methodology, and field notes were provided. This augmented the transferability and dependability of the research, ensuring its credibility. To establish the objectivity and reliability of the study outcomes, an audit trail was also created.

Comprehensive notes were developed during the interviews, and all the transcripts were checked by the study participants to ensure what they said was included. In addition to this, there were frequent debriefing sessions between the thesis committee members and the researcher to ensure credibility. To ensure dependability, all the transcripts of the participants were checked with the recording multiple times. In addition, all the transcripts were discussed in detail with the thesis committee. Conformability was ensured by discussing the constructed codes, categories, and themes with the thesis committee. The researcher-maintained transferability through the use of the purposive sampling technique, which helped in selecting participants having maximum variation, and allowed the researcher to explore information from multiple experiences.

Results

The study sample comprised 15 registered nurses from the Hayatabad Medical Complex (HMC), Peshawar, Pakistan. Their mean age was 27.93 years with a standard deviation of ± 2.93. The study comprised registered nurses with different experiences; the mean of the experience was 4.52, with a standard deviation of ± 3.167 (Tables 1, and 2).

Table 1 Demographic Variables (Quantitative Variables)

Demographic Variables	Mean	Standard Deviation
Age	27.93	2.93
Length of Experience	4.52	3.17

Table 2 Demographic Variables (Qualitative Variables)

Demographic Variables	Number of Participants (n)	Percentage (%)
Gender		
Male	09	60
Female	06	40
Marital Status		
Single	09	60
Married	06	40
Professional Qualification		
General Nursing Diploma	01	6.7
Bachelor (BScN)	12	80.0
Post RN	01	6.7
Masters (MScN)	01	6.7

The researcher followed the steps proposed by (Creswell, 2013). Following those steps (Data organization and preparation for analysis, reading and looking at the data, coding all the data, categories and themes generation, representation of data, data interpretation, and data validation), the five main themes that emerged from the data were further divided into categories (Table 3).

Table 3 Themes, and categories extracted after data analysis

Themes	Categories
Nursing Process from the nurses' lens	Nurses' knowledge of Nursing Process
	Nurses' readiness to practice Nursing Process
	Assessment is the core component
Ramifications of Nursing Process	Positive outcomes in care
	Empowerment and recognition of the nursing profession
	Advancing excellence in nursing and independent practice
Enabling factors to practice nursing process	Nurses' acceptance
	Integration of it in nursing practice
Hindrances in the application of the Nursing Process	Burdensome
	Inadequate organizational support
	Nurses' role in decision making
Nurses recommendations to enhance Nursing Process integration within the Public Sector	Adequate nurse-patient ratio
	Organizational support to enhance Nursing Process integration

Theme 1: Nursing Process from the nurses' lens

Within this theme, the researcher explored public sector bedside nurses' comprehension of the Nursing Process (NP) and its practical application. Bedside nurses exhibited substantial proficiency regarding NP and acknowledged its significance as a valuable tool. This theme emerged from three categories including nurses' knowledge of NP, nurses' readiness to practice NP, and assessment is the core component.

Nurses' Knowledge of NP

Data analysis showed that most bedside nurses were confident that they possessed extensive knowledge about the Nursing Process (NP). As per their perspectives, the NP represents a meticulously organized system that equips bedside nurses with a crucial and pivotal tool. As one of them stated that, "The nursing process is a dynamic and essential approach that allows us

(Nurses) to thoroughly assess a patient's condition, enabling us to develop a comprehensive and effective therapeutic plan" (RN-01). Similarly, another participant shared, "In my perspective as a male nurse, the nursing process is a crucial mechanism that guides me in providing daily patient care" (RN-07). Furthermore, the participants stated that this process is essential for nurses to thoroughly assess the patient and guide their care. As one of them mentioned, "The nursing process is a dynamic and essential approach that allows us to thoroughly assess a patient's condition, enabling us to develop a comprehensive and effective therapeutic plan" (RN-08). Almost all participants shared that NP has five steps, which should be followed systematically; if one step is missed, it will be difficult to achieve the respective goals. As one of the participants verbalized, "The nursing process is a systematic process that involves five steps. First is assessment, followed by diagnosis, planning, implementation, and evaluation" (RN-15).

Nurses' Readiness to Practice NP

In this category, most participants revealed their readiness to utilize the Nursing Process (NP) within patient care. A prevailing sentiment among bedside nurses is that this practical method enhances a sense of serenity in nursing professionals and patients. Moreover, a considerable number of nurses exhibited readiness to implement the NP in patient care, underlining the idea that this procedure is a legal safeguard for nurses, in the form of a nursing care plan. As one of the participants expressed, "Our nursing staff is very competent and confident. We all can use it, and we want to use it" (RN-03). Furthermore, male nurses showed interest in using this process. They expressed that it would empower the nurses, as one participant expressed, "If this process comes into practice, it will equip me with a power through which my patient will recognize me as a valuable person, enhancing my and patients' satisfaction. I wish to use this process in patient care" (RN-07). Three of the staff nurses had previous experiences working at a JCIA-accredited hospital, and they had used this process in practice before. One of them verbalized, "If this process comes into practice in public sectors, it would be a great achievement for nurses, and this will bring a significant change in the quality of care" (RN-15).

Assessment is the core component

Most participants stated that the first step, Assessment of the NP, is the most crucial step that lays the foundation for the entire nursing process. This step helps the nurses to obtain all the necessary information from the patient. As one of the participants stated, "In my opinion, all steps are important, but assessment is the most crucial one because it involves collecting patient data and identifying their problems. Thus, it lays the foundation for the entire nursing process" (RN-05). Similarly, another participant shared, "Assessment is the most crucial step. The nursing assessment is again revised in every step" (RN-06).

Theme 2: Ramifications of the Nursing Process

This theme emerged from three categories: i) Positive Outcomes in Care, ii) Empowerment and Recognition of the Nursing Profession, and iii) Advancing Excellence in Nursing and Independent Practice. Within this theme, the researcher explored the positive outcomes of the NP from the public sector's nurses' perspective.

Positive Outcomes in Care

In this category, the outcomes of NP were explored by the participants. The findings revealed that NP is a valuable tool for nurses. Almost all participants expressed the NP as a significant and essential tool. Most participants reported that this process would enhance patient outcomes and lead to a reduced hospital stay for patients and a reduction in financial burden on them. Some participants said this process helps the nurses build therapeutic relationships with patients. "…..By following this process, nurses can enhance patient outcomes, promote efficient communication among healthcare providers, and facilitate collaboration within interdisciplinary teams" (RN-02). Another participant expressed, "This structured approach ensures that patients receive appropriate and timely interventions, leading to improved health outcomes and potentially shorter hospital stays" (RN-09). Yet, another participant verbalized, "By implementing the nursing process effectively, we can have a significant impact on controlling infection rates and improving patient morbidity and mortality rates" (RN-05).

Empowerment and Recognition of the Nursing Profession

The majority of the female participants shared that if NP is used in patient care in the future, it will ultimately improve the social image of nurses, due to which the nurses will gain morale. Nowadays, people recognize them with the stigmatic word "injectable nurses." But if they approach patients with a proper tool, this will negate this stigma, further enhancing the nurses' morale. As one of the participants conveyed, "Usage of this process will greatly enhance our image in patients' perspective. They (patients) call us injectable nurses because we only inject medicines in this public sector" (RN-02). Similarly, another participant shared, "I strongly believe that implementing the nursing process will improve nurses' image….." (RN-03). Furthermore, one more participant shared, "It (usage of NP) will showcase our expertise, dedication, and holistic approach to patient care, ultimately earning us the respect and recognition we deserve" (RN-09).

Advancing Excellence in Nursing and Independent Practice

Most participants stated that if the NP is used in patient care, it will ultimately lead to patient satisfaction with public sector care, thereby attracting patients to the public sector. Moreover, nurses will work independently through this process with evidence-based practices that will lead to continuous professional development. Also, through this process, the nurses will communicate with other healthcare professionals in an evidence-based way. Highlighting how NP can enhance nurses' knowledge, one of the participants stated, "If I use the nursing process myself and perform even one nursing process in a day,

I receive a significant amount of knowledge. This benefits us by increasing our knowledge" (RN-12). Another participant verbalized, "We encounter a wider range of patient scenarios. Using this process will enhance the capability to deal with patients independently……" (RN-07).

Theme 3: Enabling Factors to Practice NP
This theme emerged from two categories: 1) Nurses Acceptance and 2) Integration of Information Technology in Nursing Practice. Almost all the participants showed a willingness to practice NP in patient care. According to them, this public sector had a well-developed Hospital Management Information System.

Nurses' Acceptance
Most of the participants stated that they accept the Nursing Process in patient care, recognizing the benefits of this approach, which will enhance the quality of care. They expressed motivation to apply this process in patient care, anticipating improvements in nurses' value and professionalism. Moreover, some participants mentioned that this process will bring satisfaction in care for both nurses and patients. Additionally, they conveyed motivation to apply this process to enhance nurses' autonomy in the public sector. As one of the participants stated, "I know the benefits of the NP in patient care, and this is the reason I am motivated to apply it" (RN-01). Another participant stated, "It is satisfying that the care is applied appropriately…... this should be applied in every organization to deal with patients' problems as it gives a real identity to nurses ……..."(RN-02). Moreover, another participant verbalized, "…… People call us injectable nurses in our community. We will happily use this process because it will change this perception" (RN-03). One more participant shared, "……. It empowers us to fully utilize our knowledge and skills, contributing to better patient outcomes and fostering a sense of professional satisfaction" (RN-04). Moreover, one more participant stated, "I think I am one of the biggest facilitators, and I know the benefits of NP in patient care, so I am ready to use it" (RN-07).

Integration of Information Technology in Nursing Practice
Most participants stated that the hospital had a well-developed HMIS (Hospital Management Information System) software that could be used for the practice of NP in patient care. In the current setup, nurses were using this software for medication indentation. Hence, this can be used in the future for documenting the NP. As one of the participants stated, "By incorporating the nursing process documentation into the HMIS, we can streamline the documentation process, reduce paperwork, and ensure easy access to patient information" (RN-11). Another participant shared, "The HMIS can provide a centralized platform where nurses can input and retrieve patient data………" (RN-15). One more participant verbalized, "I think for the facilitation, it's better to have the online system or the software system……." (RN-02). Yet, another participant expressed, "…… providing resources such as time-saving tools and technologies to support the nursing process implementation can enhance its efficiency……" (RN-05).

Theme 4: Hindrances in the application of NP
This theme comprises three categories: i) Burdensome, ii) Inadequate Organizational Support, and iii) Nurses' Role in Decision-making.

Burdensome
Almost every participant stated that there is high patient flow and less staff in the public sector, which hinders the practical application of the NP in patient care. One of the participants stated, "Here, in government hospitals and similar settings, there is a high patient flow and a significant burden" (RN-01). Another participant shared his opinion in these words, "The Hayatabad Medical Complex is a public sector with a high flow of patients, and we cannot utilize the process appropriately……." (RN-02). Moreover, one more participant stated, "Patient flow is a significant challenge, with an overwhelming ratio of 50 to 60 patients per nurse, making it nearly impossible to handle effectively….." (RN-03).

Inadequate Organizational Support
This deficiency in organizational support manifests primarily as a lack of effective leadership, which stems from a lack of awareness at the administrative level. As stated by a participant, "The next one is the administration also does not support this process. It may be due to the lack of information regarding the importance of the nursing process at the administration level….." (RN-02). The administration's disregard for the significance of the NP in patient care also leads to ignoring this issue. As one participant expressed, "It is disheartening that in clinical practice, we often find ourselves restricted to mere medication and interventions, deviating from the comprehensive approach we learned during our student years….." (RN-08). The participants also emphasized that the absence of well-defined job descriptions, inadequate policy frameworks, the lack of appropriate guidelines, and the scarcity of electronic devices collectively impeded the integration of the NP into the patient care protocols. As one participant shared, Proper job descriptions are unavailable in this organization for the staff nurses, which is also a hurdle in the implementation of nursing processes……" (RN-11). Another participant stated, "Additionally, the administration's lack of focus on the nursing process is a significant challenge. The absence of proper guidelines, policies, and sessions specifically… hampers its effective utilization" (RN-05). Additionally, the absence of comprehensive documentation about the NP in patients' medical records compounds the difficulty. As one of the participants shared, "There is no documentation specifically for nursing care plans here. We only document nursing notes, events, and any medication administration" (RN-01). Another participant verbalized, "I would prioritize ensuring the availability of necessary materials for conducting assessments….." (RN-03). Some participants underscored that unsupportive leadership engenders a challenging environment for bedside nurses. One participant verbalized, "The lack of motivation and support from the administration

adds to the demotivation ….." (RN-09). Moreover, participants highlighted that successful implementation of NP in patient care necessitates structured training sessions and motivational initiatives from the administration, elements notably deficient in the public sector. The deficiency of proper remuneration and performance evaluations also hinders effective patient care through the NP. Several participants also shared that a comprehensive review by proficient nursing instructors and managers was imperative, the lack of which further added to the barriers hampering the integration of the NP into patient care. As one participant shared, "This public sector lacks the instructors and managers for conducting regular audits and evaluations…." (RN-04).

Nurses' Role in Decision Making
The majority of the participants stated that they cannot make decisions on their own. They verbalized this as a lack of autonomy of nurses in the public sector. Mostly, the doctors' community is dominant in the public sector, and the nurses often do things that the doctors want them to do. Doctors always do the initial assessment of the patient mainly due to a lack of awareness in doctors regarding the benefits of the NP and this barricades the practical application of NP in patient care. As one participant shared, "Nurses are not autonomous in the public sector…." (RN-14). Moreover, one more participant stated, "It is important to consider the nurses significant in the public sector; mostly doctors do the initial assessment, and nurses cannot take the initiative because of the doctors' dominancy" (RN-04). Another participant shared, "Nurses' are dependent on the doctors in this public sector as they consider the nurses their auxiliary staff" (RN-07). One more participant shared, "They (Doctors) consider stethoscopes their personal property, and they feel bad when nurses use this instrument" (RN-15).

Theme 5: Nurses' Recommendations to Enhance NP Integration
This theme emerged from two categories: i) Adequate Nurse-Patient Ratio and ii) Organizational Support to Enhance NP.
Adequate Nurse-to-Patient Ratio
Most bedside nurses highlighted that this public sector had a higher patient volume than nurses. They stated that a proper nurse-to-patient ratio can enhance the integration of the NP in patient care. Nurses should be hired according to the standard ratio. This will reduce burnout and strengthen the NP's integration into patient care. As one of the participants shared, "One nurse has to deal with more than fifty patients in one shift; it is impossible to provide care with this framework. More nurses should be hired to decrease the workload" (RN-01). Similarly, another participant stated, "It is impossible to integrate the NP in patient care in this public sector with such a high volume of patients. It would be possible if nurses were in an appropriate ratio to the patients" (RN-05). Moreover, another participant said, "Most of our experienced staff nurses have left the bedside job and have gone abroad because they were burning ….." (RN-12). One more participant shared, "Public sectors should hire more staff nurses to enhance the quality of care….." (RN-13).

Organizational Support to Enhance NP Integration
Most participants stated that the Nursing Process integration in patient care is possible with adequate organizational support. The organization should manage sufficient resources for precise patient assessment, create supportive environments for nurses, ensure strategic implementation of educational sessions, have expert instructors for nurturing skilful nursing practice, empower nursing education systems within organizations, invest in training for nursing process proficiency, foster an educational climate for effective nursing processes, develop standardized job descriptions for all professionals, design proper policies and guidelines to execute the NP in patient care, develop awareness in doctors to accept nurses as autonomous professionals, increase the salaries, and appraisal should lead to motivation; all this will enhance the integration. As one of the participants expressed, "Look, brother! You know we are dealing with a very burdensome environment. It is difficult to integrate the NP in patient care if nurses are not appraised for the struggles they are carrying out…." (RN-03). Similarly, another participant stated, "Nurses need a conducive and supportive environment in the public sector; it is impossible without administrative support to integrate the NP in patient care (RN-04). Another participant said, "We are getting inadequate salaries and dealing with many patients……" (RN-07). One more participant shared, "There is no proper policy or guidelines related to the integration of the NP in patient care…." (RN-12). One more participant expressed, "Alas! Most of our doctors do not know the significance of this process in patient care. This awareness could come if policies are made regarding the usage of this process" (RN-13).

Discussion
The current study was conducted to explore the nurses' perceptions regarding the usage of the Nursing Process in a public sector hospital, and it was revealed that the Nursing Process (NP) is a crucial tool for nurses. Despite favouring the nursing process (NP) for patient care, nurses face barriers in the public sector—excessive workload, inadequate organizational support, and limited role in the decision-making process. Facilitators for NP usage include nurses' acceptance, their desire to use the process, and the availability of a Hospital Information Management System (HIMS). The Unique findings of the research were that the Nursing Process (NP) enhances and boosts nurses' social image and lack of autonomy in the public sector, aligning with the literature on factors prompting nurses to leave Pakistan.
The results of the current study are congruent with the results in Saudi Arabia, which revealed that 94.6% of the staff nurses had good knowledge of the NP, and 79.8% had shown confidence in executing it (Mahmoud & Bayoumy, 2014). Additionally, another quantitative descriptive cross-sectional study conducted in the public sector of Lahore, Pakistan, also revealed that most public sector nurses had moderate knowledge of the NP (Akhtar et al., 2018).
The findings of the current study are aligned with several international studies, reinforcing the notion that diverse contextual factors shape nurses' perceptions of the NP. For instance, a descriptive cross-sectional study conducted in the State Hospital

of Nigeria reported results that resonate with the present study findings. Remarkably, 80 percent of the participants in that study demonstrated good knowledge regarding the NP (Agbonjinmi et al., 2022). This congruence suggests a degree of consistency in the understanding and proficiency of the NP among nurses, transcending geographical boundaries. Similarly, a qualitative study in Uganda echoed the current study results by indicating that nurses exhibited good knowledge and positive attitudes toward the NP (Eletu, 2022). These findings across different regions highlight the global recognition of the NP as a fundamental aspect of nursing practice. This study revealed that a significant number of participants expressed a strong readiness to employ the Nursing Process (NP) in their patient care responsibilities. This sentiment reflects a prevailing notion among bedside nurses that this systematic approach enhances the sense of serenity for nursing professionals and patients. These findings harmonize with the results of various international studies, signifying a global inclination among healthcare professionals to embrace the NP as an effective tool for patient care. For instance, a quantitative descriptive cross-sectional study conducted in Lahore, Pakistan, which specifically focused on a public sector hospital, demonstrated that participants were willing to execute the NP in their patient care roles (Akhtar et al., 2018). This congruence in the Pakistani context shows the shared commitment of nurses in public healthcare settings to employ the NP for the betterment of patient care.

Similarly, a qualitative study conducted in Uganda provided further corroborating evidence. The study found that nurses in Uganda exhibited positive attitudes toward the NP and expressed their willingness to execute it in patient care (Eletu, 2022). This resonates with this study's findings, indicating that the readiness to utilize the NP is not confined to a specific geographic region but reflects that it is a universal approach in the nursing community.

In the current study context, a surprising revelation emerged within the chosen theme. It was noted that most participants placed a particularly high value on the assessment step as compared to the other steps of the nursing process. They perceived the assessment process as being essential in the entire nursing practice, emphasizing that the initial Assessment of a patient's needs and condition is the basic foundation upon which the entire nursing process is built. While an extensive literature search yielded no direct references to these specific findings, some related studies shed light on the significance of the assessment step in nursing practice. For instance, a study by Pokorski et al. (2009), indicated that nurses strongly adhere to nursing record-keeping and physical examinations, with more than 90% of the participants prioritizing the assessment step. This alignment with the current study's findings shows the consistent importance placed on the assessment phase by healthcare professionals. Moreover, a separate study conducted in Northeast Ethiopia, by Miskir and Emishaw (2018), also indicated a notable trend. In this study, 56.9 percent of the participants were observed to be engaging in assessments while providing care through the nursing process. This further supports the notion that the assessment phase holds substantial relevance and significance in nursing practice.

The current study's results highlight the positive impact of the NP on public sector nurses' perspectives. Participants were optimistic that NP implementation would enhance patient outcomes, decrease hospital stays, and ease financial burdens. These results are similar to a phenomenological study conducted in Ghana. The study revealed that NP has been widely recognized as a valuable scientific instrument across the globe and a method for directing the practice of nursing that aids in advancing the standard of nursing care (Gazari et al., 2020). Yet another quantitative cross-sectional study conducted in Kenya also revealed that most nurses strongly agreed that using the NP enhances patient care (Mangare et al., 2016).

Moreover, another qualitative study conducted in 2022, in Uganda, revealed that nurses utilize the NP for better patient outcomes, including reducing the length of hospital stay, and mortality and morbidity rates (Eletu, 2022). Another study has also concluded that inadequate utilization of the nursing process results in diminished care quality, chaotic systems, role conflicts, medication mistakes, recurrent readmissions, patient dissatisfaction, and higher mortality rates (Aseratie et al., 2014). An unforeseen result under this theme was that almost all the female participants stated that using the NP in patient care would enhance nurses' social image, and could improve nurses' autonomy and the overall image of nursing, potentially attracting more patients to the public sector for care. Moreover, the participants of the current study reflected that the usage of the NP will enhance the autonomy of the nurses, which will lead to professional satisfaction and quality care. These findings are similar to the conclusion of a qualitative meta-synthesis study, which showed that professional independence is attained through patient-focused competence, self-reliance, and effective collaboration with other healthcare professionals to make informed decisions and improve patient health (Rouhi-Balasi et al., 2020).

The current study participants' perception that using the NP can lead to professional development, ultimately enhancing nurses' social image and quality care, is also similar to a descriptive cross-sectional study conducted in Nigeria, which showed that the top priority for respondents was to enhance the quality of patient care. This was closely followed by the goal of fostering more excellent nursing professionalism and improving nursing documentation. The respondents also emphasized improving patient care quality, with a strong emphasis on advancing nursing professionalism and enhancing care documentation (Edet et al., 2012).

The current study also showed that this process enhances inter-professional collaboration for communicating the patient's progress. The results are similar to a survey which revealed that documenting nursing care encourages organized communication between the nursing staff and other healthcare professionals, guaranteeing the seamless continuity of personalized patient care plans (Björvell, 2002). Similarly, another study's results are also similar to the current study results, which revealed that teaching the nursing process aimed to provide a framework for organizing nursing care and promoting a mutual and supportive connection between the patients and the nursing personnel (Sheldon & Ellington, 2008).

The majority of the participants of the present study showed a willingness to execute the NP in patient care; these results are congruent with a study conducted in a public tertiary care hospital in Lahore, Pakistan, where the majority of the participants showed a willingness to execute this process in patient care (Akhtar et al., 2018), indicating that public sector nurses are willing to execute the NP in patient care. Yet, another study's results are also similar to the current study results, which showed that 76.2 percent of the registered nurses in a hospital in Ogun state perceived the NP as a good tool for patient care (Agbonjinmi

et al., 2022). Similarly, another study conducted in Nigeria concluded that most nurses had a favourable perception of the NP and favoured it in patient care (Edet et al., 2012).

According to the current study results, the use of software, instead of paperwork can facilitate the practice of the NP, these results are similar to a review paper, which showed that the NP needs a lot of paperwork, which should be reduced to implement the process in the real sense (Desai et al., 2019).

The current study results showed that the workload was the prominent hindrance in the public sector hospital, in the practical application of the NP in patient care. The results of the current study are similar to a cross-sectional study conducted in Iran, in 2014, which showed that nurse to patient ratio was a barrier to the execution of the NP in patient care (Rajabpoor et al., 2018). Yet, another study in Nigeria identified two significant barriers: excess workload and inappropriate staffing (Edet et al., 2012).

The current study results supported that management has a vital role in the practical application of the NP in patient care, without support from the administration, the practical application of the NP in patient care is impossible. Similarly, one more study results, in Kenya, are also congruent with the current study results, as it reported that inadequate nurse-to-patient ratio, inadequate organizational support, and lack of evaluation and monitoring were the main hindrances in the execution of the NP in patient care (Isika, 2018). One more study conducted in Ethiopia has also reported that the organizational factors are most important in the execution of the NP in patient care; this study also recommended that necessary materials should be supplied to nurses to properly execute the NP in patient care (Alemu & Kebede, 2020).

The current study results also showed that the nursing leaders are not supportive, and lack of support is a barrier to the execution of the NP in patient care. These results are congruent with a study conducted in Kenya, which revealed that poor staff motivation, lack of conducive and supportive leadership from senior nurses, and lack of feedback were the challenges in executing the NP in patient care (Mbithi et al., 2018). Similarly, another study in West Ethiopia, also concluded that supportive leadership is important (Tadie, 2017).

The current study also revealed that the lack of policy was a challenging factor in the usage of the NP. Similarly, a study conducted in Tanzania also reported a need for a policy to enhance the use of the NP in patient care (Obonyo et al., 2019). Moreover, the current study results also reported a lack of adequate salaries and appraisals. A phenomenological study conducted in the urban hospitals of Cameroon also found that the provision of good wages to nurses would enable the NP in patient care (Tadzong-Awasum et al., 2022).

An unexpected result of the current study, under this theme, was that the public sector nurses are not autonomous in decision-making. This study revealed that doctors are dominant in decision-making in the public sector, while nurses are not autonomous in decision-making, which hinders the practical application of the NP in patient care. These results are unique and are very much linked to the Pakistani culture and context. After an extensive literature search, no study was found that was congruent with these results. However, these results are somewhat similar to a study conducted in Saudi Arabia, where the main barrier to evidence-based nursing practice was a lack of authority among nurses and knowledgeable mentors (Mustafa Bakr, 2016).

The current study results showed that the registered nurses believed that NP integration would be possible if an adequate nurse-to-patient ratio was maintained in the public sector. The second most important thing was adequate organizational support; by creating a supportive environment, appraisals, increasing salaries, training sessions, standardized job descriptions, proper policies, and adequate resources for Assessment. The results of the current study are similar to a study conducted in Northwest Ethiopia, which also reported the same recommendation from the nurses' perspective, that an optimum nurse-to-patient ratio could enhance the integration of the NP in the sector (Tadie, 2017).

Similarly, a study conducted in Lahore, Pakistan, also recommended that nursing administration provide sufficient materials and nurses to enhance NP usage in patient care (Akhtar et al., 2018). The recommendations of this study are congruent with the current study results; moreover, both were conducted in Pakistan's public sector.

The current study recommended that adequate organizational support is essential for the utilization of the NP in patient care. Similarly, a survey conducted in Northern Ethiopia has also concluded that good organizational support is mandatory for the proper utilization of the NP in patient care (Yilak et al., 2022).

Moreover, the nurses recommended that two things could enhance NP utilization; adequate salaries and appraisals. In Pakistan, the salaries are low, as compared to foreign countries. The participants suggested that this was the reason behind the exhaustion and burnout of nurses in the public sector and could lead to the non-execution of the NP in patient care. This issue was also highlighted in a news article, that medical professionals are leaving Pakistan to seek higher income and access to advanced medical technology abroad, exacerbating the existing staffing shortage in the country's fragile healthcare system (Nazir, 2023). Moreover, an evidence-based analysis, by Meo and Sultan (2023), revealed that from 1971 to 2022, more than six million highly qualified and skilled professionals had left the country, mainly for higher salaries and better job prospects, this figure was alarming because, in a single year, in 2022, the number of migrants was more than three hundred and fifty thousand. Amongst these, more than fifty thousand healthcare professionals left the country from 1971 to 2022, while in the previous year (2022), more than four thousand healthcare professionals left the country. These results are linked to the Pakistani healthcare system and need deep consideration as to why so many healthcare professionals are leaving the country. Moreover, what would be the impact of this migration on the future healthcare system of Pakistan?

As per the researcher's knowledge, this research stands out as an inaugural study of its kind in Pakistan, bringing unique insights to the forefront. Participants contributed substantial and valuable information, enriching the study's content. The findings generated have implications for future research studies. Notably, the interviews were personally conducted by the researcher, ensuring the study rigors.

It's important to acknowledge certain limitations. The data collection was confined to a single public-sector hospital, potentially limiting the broader applicability of the findings. Generalizing the results to the context of private-sector hospitals should be approached with caution due to the study's specific focus on the public sector.

Conclusion

This study is probably the first exploratory descriptive qualitative study conducted in Pakistan that explored nurses' perceptions regarding the NP and its usage in patient care in the public sector hospitals of Peshawar, Pakistan. Moreover, this study also explored the perceived barriers and facilitators in the use of the NP in patient care in a public sector hospital.

The findings revealed five themes: Nursing Process from the Nurses Lens, Ramifications of the NP, Hindrances in the Application of the NP, Enabling Factors to Practice NP, and Nurses Recommendations to Enhance NP Integration. Moreover, the study discussed the findings in the light of previous literature. Finally, the study concluded that nurses value the NP and are ready for its use in patient care but cannot do so because of barriers. However, some facilitators can be used to ensure the future usage of the NP in patient care.

Availability of data and materials

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Abbreviations

HMC	Hayatabad Medical Complex
NP	Nursing Process
EBP	Evidence-Based Practice
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
CINAHL	Cumulative Index to Nursing and Allied Health Literature
NCP	Nursing Care Plan
ISO	International Standardization Organization
EDQ	Exploratory Descriptive Qualitative

Acknowledgement

Supplementary Files (Figures) Details

1. Institutional Ethical Review Board of the Hayatabad Medical Complex, Peshawar Approval.
2. Academic Ethical Review Committee Approval of the Aga Khan University, Karachi.
3. Consent Form in English Language, and Consent Form in Urdu Language.
4. Study Guide in English (Semi structure Interview Guide, and Demographic form in Urdu and English).
5. Medical Director of Hayatabad Medical Complex, Peshawar, Pakistan Permission Letter signed with stamp.
6. Nursing Director of Hayatabad Medical Complex, Peshawar, Pakistan Permission Letter signed with stamp.

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