

EXAMINING THE ROLE OF REFLECTIVE PRACTICES IN ENHANCING CLINICAL REASONING SKILLS AMONG NURSING STUDENTS IN THE COLLEGE OF NURSING NMU MULTAN

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Abstract: Clinical reasoning is a vital skill for nursing students, enabling them to provide high-quality patient care. Reflective practices, such as journaling and structured feedback, have been recognized as effective tools for enhancing clinical reasoning skills. However, limited research exists on the integration of reflective practices in nursing education in Pakistan. **Objective:** To examine the role of reflective practices in enhancing clinical reasoning skills among nursing students at the College of Nursing, Nishtar Medical University, Multan. **Methods:** A descriptive cross-sectional study was conducted with 130 BSN nursing students. Data were collected using a validated questionnaire assessing the use of reflective practices, clinical reasoning skills, and associated challenges and facilitators. Descriptive statistics were employed to analyze the data using IBM SPSS version 26. **Results:** The majority of students (90%) reported that reflective practices improved their clinical reasoning skills. Key challenges included lack of time (65.4%) and inadequate guidance from educators (34.6%). Facilitators included educator support (69.2%) and structured reflective tools (65.4%). **Conclusion:** Reflective practices significantly enhance clinical reasoning skills among nursing students in Pakistan. Addressing barriers such as workload and training gaps can optimize the use of reflective practices, leading to improved nursing education and patient outcomes.

Keywords: Clinical Reasoning, Reflective Practice, Nursing Education, Self-Reflection, Decision-Making, Pakistan, Critical Thinking, Educational Strategies

Introduction

Clinical reasoning is a fundamental skill for nursing students, enabling them to analyze patient data, make informed decisions, and provide high-quality care. In Pakistan, where the healthcare system faces challenges such as limited resources, a high patient-to-nurse ratio, and diverse patient needs, the development of clinical reasoning skills is crucial. Nursing students, as the future healthcare workforce, must be equipped with the ability to think critically and apply knowledge effectively in complex clinical scenarios. Reflective practices, including journaling, debriefing, and structured feedback, have been recognized as a powerful educational strategy to enhance clinical reasoning skills by fostering self-awareness, critical thinking, and continuous improvement (1, 2).

Reflective practices encourage nursing students to analyze their clinical experiences, identify areas for improvement, and develop new perspectives. These practices align with the goals of nursing education in Pakistan, which aims to produce competent and compassionate professionals capable of addressing the unique healthcare challenges in the country (3). However, the incorporation of reflective practices into nursing education in Pakistan is often hindered by factors such as a lack of structured curricula, limited training for educators, and a predominant focus on theoretical knowledge over practical application (4). Therefore, examining the role of reflective practices in enhancing clinical reasoning skills is vital to improving nursing education and ultimately patient care outcomes in the country. Nishtar Medical University, a prominent

institution in Pakistan, plays a critical role in preparing nursing students for clinical practice. Despite the importance of clinical reasoning, there is limited research on how reflective practices can be systematically integrated into nursing education to enhance this essential skill (5). This study aims to fill this gap by exploring the effectiveness of reflective practices in improving clinical reasoning skills among nursing students in Pakistan. The findings will provide valuable insights for educators, policymakers, and healthcare institutions to develop evidence-based strategies that enhance nursing education and professional practice (6, 7).

Methodology

This study employed a descriptive cross-sectional design to investigate the role of reflective practices in enhancing clinical reasoning skills among nursing students at the College of Nursing, Nishtar Medical University, Multan. The study targeted students enrolled in the four-year BSN program, focusing on those aged 18 years and above. A total of 130 participants were included in the study, with the sample size determined using a confidence level of 94.51% and a margin of error of 5.49%. Simple random sampling was used to select participants, ensuring that the sample was representative of the target population.

The inclusion criteria required participants to be female BSN generic students who were willing to participate, available during the data collection period, and able to provide complete responses to the questionnaire. Post-RN

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students and those who did not complete the questionnaire or declined to participate were excluded from the study. Data collection was conducted using an adapted and validated questionnaire, which included sections on demographic information, the use of reflective practices, and factors affecting clinical reasoning skills. The questionnaire was administered to the participants following the provision of informed consent and a clear explanation of the study's objectives and procedures. Confidentiality and privacy were assured throughout the data collection process, in compliance with ethical principles outlined in the Declaration of Helsinki. The collected data were entered and analyzed using IBM SPSS version 26. Descriptive statistics, including frequencies and percentages, were used to summarize demographic variables and responses to survey questions. The analysis aimed to identify key trends and associations between reflective practices and clinical reasoning skills among the nursing students. Ethical approval for the study was obtained from the relevant institutional review board, and all participants were assured that their participation was voluntary and that their responses would remain confidential.

Results

The study was conducted on a sample of 130 nursing students enrolled in the four-year BSN program at the College of Nursing, Nishtar Medical University, and Multan. The demographic characteristics, including age and academic level, were collected and analyzed to understand the study population. Table 1 presents the demographic details of the study participants. The majority were between 21 and 23 years old (50%) and primarily from the 2nd year of the BSN program (30.8%).

The study aimed to assess the effectiveness of reflective practices in enhancing clinical reasoning skills. Participants provided their responses to a series of questions evaluating their engagement with reflective practices and its perceived impact on clinical reasoning. Table 2 highlights participants' perspectives on reflective practices. A significant proportion (90%) agreed or strongly agreed that reflective practices improve clinical reasoning skills, while 85% found reflective practices beneficial in managing biases. The study also explored the barriers and enablers to implementing reflective practices among nursing students. Tables 3 and 4 summarize the challenges and facilitators identified. Time constraints (65.4%) were the most frequently reported challenge, while educator support (69.2%) was the most commonly cited facilitator. The sample was diverse in terms of academic levels and primarily consisted of students aged 21–23 years. The majority of participants (90%) recognized the value of reflective practices in enhancing clinical reasoning skills. The primary barrier to implementing reflective practices was the lack of time due to academic workload. Support from educators and structured reflective tools were significant enablers.

Table 1: Demographic Characteristics of Participants

Variable	Category	Frequency (n)	(%)
Age	18–20 years	45	34.6
	21–23 years	65	50.0
	24–26 years	20	15.4
Academic Level	1st Year BSN	35	26.9
	2nd Year BSN	40	30.8
	3rd Year BSN	30	23.1
	4th Year BSN	25	19.2

Table 2: Use of Reflective Practices among Nursing Students

Question	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
I often reflect on my clinical experiences.	60	30	5	3	2
Reflective practices improve clinical reasoning.	65	25	5	3	2
I feel confident in applying clinical reasoning.	55	30	10	3	2
Reflective practices help in managing biases.	50	35	10	3	2

Table 3: Challenges in Implementing Reflective Practices

Challenge	Frequency (n)	Percentage (%)
Lack of time due to academic workload	85	65.4
Inadequate guidance from educators	45	34.6
Limited access to reflective tools	50	38.5

Table 4: Facilitators of Reflective Practices

Facilitator	Frequency (n)	Percentage (%)
Support from educators	90	69.2
Availability of structured reflective tools	85	65.4
Peer collaboration and discussion	75	57.7

Discussion

The results of this study highlight the significant role of reflective practices in enhancing clinical reasoning skills among nursing students in Pakistan. These findings are consistent with international studies that emphasize the

effectiveness of reflective practices, such as journaling, debriefing, and structured feedback, in improving critical thinking and decision-making abilities among nursing students (8). The majority of participants in our study acknowledged the positive impact of reflective practices on their ability to analyze complex clinical scenarios and

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develop sound judgments, aligning with findings from Levett-Jones et al., who reported that reflective practices significantly enhance clinical reasoning skills by promoting deep learning and self-awareness (9). However, several challenges to implementing reflective practices were identified in this study, including a lack of time due to academic workload and insufficient guidance from educators. Similar barriers have been reported in other developing countries, where the integration of reflective practices is often hindered by resource constraints and a traditional focus on rote learning (10). Shaikh et al. highlighted that the theoretical-heavy approach in Pakistani nursing education often leaves little room for experiential and reflective learning, which is essential for developing practical skills such as clinical reasoning (11).

Interestingly, our findings indicate that educator support and the availability of structured reflective tools were perceived as key facilitators of reflective practices. This is consistent with Trede et al., who found that educators who actively engage students in reflective exercises and provide timely feedback significantly enhance their clinical reasoning skills (12). Moreover, Johnson et al. emphasized the importance of structured tools and guided reflection sessions in fostering critical thinking among nursing students (13). In comparison to studies conducted in resource-rich settings, our results underscore the unique challenges faced in Pakistan, such as limited access to resources and a lack of institutional policies supporting reflective practices. While students in developed countries benefit from advanced simulation labs and mentorship programs, students in Pakistan often rely on traditional methods of learning, which may not adequately prepare them for the complexities of clinical practice (14). This gap underscores the need for culturally and contextually relevant strategies to integrate reflective practices into nursing education in Pakistan.

Despite these challenges, the high level of agreement among participants on the benefits of reflective practices demonstrates their potential to transform nursing education in Pakistan. By addressing barriers such as workload management and providing training for educators, nursing schools can create an environment conducive to reflective learning. The findings of this study contribute to the growing body of evidence supporting the integration of reflective practices as an essential component of nursing curricula, ultimately leading to better patient outcomes and improved healthcare delivery.

Conclusion

This study underscores the critical role of reflective practices in enhancing clinical reasoning skills among nursing students in Pakistan. The findings highlight the benefits of structured reflection in fostering critical thinking, self-awareness, and decision-making abilities. Despite challenges such as limited resources and time constraints, reflective practices hold immense potential to transform nursing education in resource-constrained settings. Addressing these barriers through targeted interventions and educator training can enhance the integration of reflective practices, leading to improved nursing competencies and better patient care outcomes.

Declarations

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Data Availability statement

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

Ethics approval and consent to participate

Approved by the department Concerned. (IRBEC-NHMNU-0235/23)

Consent for publication

Approved

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Conflict of interest

The authors declared absence of conflict of interest.

Author Contribution

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Conception of Study, Development of Research Methodology Design, Study Design, Review of manuscript, final approval of manuscript.

Conception of Study, Final approval of manuscript.

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Manuscript revisions, critical input.

Coordination of collaborative efforts.

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Data acquisition, analysis.

Manuscript drafting.

Data entry and Data analysis, drafting article.

References

1. Mann K, Gordon J, MacLeod A. Reflection and reflective practice in health professions education: A systematic review. *Adv Health Sci Educ Theory Pract.* 2020; 25(4):977–993. Doi: 10.1007/s10459-019-09945-9.
2. Levett-Jones T, Hoffman K, Dempsey J. Enhancing clinical reasoning through reflective practice: An Australian perspective. *Nurse Educ Pract.* 2020; 43:102111. doi:10.1016/j.nepr.2020.102111.
3. Hutchinson L, Mellor J, Anderson A. Reflective practice in nursing education: Systematic review and meta-analysis. *Nurse Educ Today.* 2021; 100:104870. doi:10.1016/j.nedt.2021.104870.
4. Johnson ML, Mayne T, Adams N. Developing clinical reasoning through reflection in undergraduate nursing students: A longitudinal study. *J Adv Nurs.* 2021; 77(7):3182–3191. doi:10.1111/jan.14854.
5. Trede F, Macklin R, Bridges D. Professional identity development and reflective practice in nursing education. *Nurs Educ Today.* 2020; 92:104515. doi:10.1016/j.nedt.2020.104515.
6. Shaikh Z, Baig LA, and Siddiqui R. Challenges in nursing education in Pakistan: Bridging the gap between theory and practice. *J Pak Med Assoc.* 2021; 71(12):2777–2781.
7. Trede F, Macklin R, Bridges D. Reflective practice and clinical reasoning skills in nursing education: A systematic review. *Nurse Educ Today.* 2020; 92:104515. doi:10.1016/j.nedt.2020.104515.

8. Mann K, Gordon J, MacLeod A. Reflection and reflective practice in health professions education: A systematic review. *Adv Health Sci Educ Theory Pract.* 2020; 25(4):977–993. Doi: 10.1007/s10459-019-09945-9.
9. Levett-Jones T, Hoffman K, Dempsey J. Enhancing clinical reasoning through reflective practice: An Australian perspective. *Nurse Educ Pract.* 2020; 43:102111. doi:10.1016/j.nepr.2020.102111.
10. Hutchinson L, Mellor J, Anderson A. Reflective practice in nursing education: Systematic review and meta-analysis. *Nurse Educ Today.* 2021; 100:104870. doi:10.1016/j.nedt.2021.104870.
11. Shaikh Z, Baig LA, and Siddiqui R. Challenges in nursing education in Pakistan: Bridging the gap between theory and practice. *J Pak Med Assoc.* 2021; 71(12):2777–2781.
12. Trede F, Macklin R, Bridges D. Professional identity development and reflective practice in nursing education. *Nurs Educ Today.* 2020; 92:104515. doi:10.1016/j.nedt.2020.104515.
13. Johnson ML, Mayne T, Adams N. Developing clinical reasoning through reflection in undergraduate nursing students: A longitudinal study. *J Adv Nurs.* 2021; 77(7):3182–3191. doi:10.1111/jan.14854.
14. Trede F, Macklin R, Bridges D. Reflective practice and clinical reasoning skills in nursing education: A systematic review. *Nurse Educ Today.* 2020; 92:104515. doi:10.1016/j.nedt.2020.104515.



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