



Original Research Article

Clinical skill performance and professional development among nursing interns through mentorship

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Abstract: Background: Clinical skill performance and professional development are essential components of nursing internship programs. Nursing interns often face challenges in translating theoretical knowledge into clinical practice due to limited guidance and support. Structured mentorship has been identified as an effective strategy to enhance clinical skills and professional growth among nursing interns. **Objective:** 1. To assess the effect of mentorship on the clinical skills performance of nursing interns. 2. To evaluate the influence of mentorship on the professional development of nursing interns. **Methodology:** A quasi-experimental (pre-test and post-test) study was conducted among 36 nursing interns at the private institute of Lahore. Nursing interns were recruited using a convenience sampling technique. Nursing interns of all genders who had basic clinical knowledge, agreed to participate voluntarily, and were able to attend all mentorship sessions and complete pre- and post-assessments were included in the study. The intervention consisted of a 16-week structured mentorship program delivered through interactive lectures, skills demonstration and re-demonstration, case-based learning, and supervised clinical practice. Data were collected using the clinical competence questionnaire and the nurse professional competence scale-short form (NPC Scale-SF). Demographic data were summarized using age and gender. The Shapiro-Wilk test assessed normality, and the Wilcoxon signed-rank test was applied to compare pre- and post-intervention scores among nursing interns. Statistical significance was set at $p \leq 0.05$. **Results:** The mean age of the participants was 23.11 years (SD = 1.32), with an equal distribution of males and females. Clinical skills performance improved significantly, with mean scores increasing from 74.63 ± 30.93 pre-intervention to 187.11 ± 47.00 post-intervention ($p < 0.05$). A substantial shift was observed from novice and advanced beginner levels to proficient and expert levels following mentorship. Professional development also showed significant improvement, with mean scores increasing from 61.44 ± 17.39 to 115.91 ± 16.16 ($p < 0.05$). Notable improvements were observed across all six domains of professional competence, particularly in value-based nursing care, communication, leadership, and documentation. **Discussion:** The findings indicate that structured mentorship plays a crucial role in enhancing both clinical skills performance and professional development among nursing interns. The improvements observed may be attributed to guided supervision, continuous feedback, and opportunities for reflective practice, which support the integration of theoretical knowledge into clinical settings. **Conclusion:** The structured mentorship program significantly enhanced clinical skill performance and professional development among nursing interns. These findings suggest that mentorship is an effective educational strategy for improving clinical competence, confidence, and professional readiness in nursing internship programs.

Keywords: Mentorship, Nursing Interns, Clinical Skills Performance, Professional Development, Nursing Education

INTRODUCTION

The quality of the learning environment for undergraduate nursing students is identified worldwide as a key factor influencing their learning behaviors and the development of their competencies (Erlam et al., 2018). Applying the knowledge and skills gained during on-campus education is important for shaping future competent nurses. Students learn

best in clinical settings where they actively engage in patient care, working with healthcare professionals who provide support and foster a positive learning experience (Doyle et al., 2017).

Compared to global standards, Pakistan's nursing education is considered substandard but is gradually improving. While the current minimum qualification

for practice is a Bachelor of Science in Nursing (BSN), most nurses still hold a three-year diploma. Although regulatory bodies aimed for all nurses to have a BSN by 2020 (Huda & Alisbinati, 2015), this goal remains unmet due to challenges such as a shortage of qualified educators, inadequate infrastructure, and limited research in nursing education (Awalkhan & Ghani, 2018).

The theory-practice gap is an important concern for the nursing profession due to its negative influence on patient safety. This gap also affects new graduates, leading to reduced job satisfaction, higher turnover rates, and more common mistakes in patient care. While the theory-practice gap is most obvious in clinical settings, its roots lie in the educational environments where nurses are skilled. Faculty members in nursing education play a critical role in recognizing the identification of factors that contribute to this gap and can implement strategies to eliminate or reduce or eradicate it (Brown, 2019).

Providing high-quality clinical education while managing budgetary boundaries is a major challenge for nurse educators universally. This challenge has encouraged the need for alternative learning strategies to be put in place for clinical teaching. Adopting advanced methods and active learning methods can lead to positive improvements in clinical education and nursing students' learning experiences (Fard et al., 2020).

Mentoring is an important part of clinical education, which has been examined across several student populations. Research shows that many new nurses often struggle with competency in their practice. Effective policies should help students overcome psychological and educational hurdles to acquiring the necessary information, skills, and attitudes. One promising approach is integrating mentorship in nursing education to better prepare students for clinical practice (Mirbagher Ajorpaz et al., 2016).

The clinical performance and competence of nursing interns are key concerns for both providers and recipients of nursing care. It is essential for nurses show the capability to demonstrate the skill to deliver high-quality patient care for patients and to collaborate effectively with fellow nurses and colleagues. High levels of professional competence among nursing interns are associated with improved patient outcomes. Research shows that the quality and safety of nursing care are thoroughly tied to nurses' competence, which is crucial for maintaining high standards of care and confirming patient safety (Ansari Jaber et al., 2022).

Professional development in the Bachelor of Health Sciences (BSHS) program focuses on enhancing students' academic and non-academic skills through

structured education and training opportunities. Implementing such programs helps students achieve academic success while preparing them for future careers by bridging the gap between academic preparation and employer expectations. It also improves classroom performance—such as group work and oral presentations—and promotes the growth of compassionate, culturally competent healthcare providers ready to serve diverse patient populations (Salifu et al., 2019).

The future of the nursing profession largely depend on nursing students and the quality of training they receive as they enter the workforce (Umubyeyi, 2020). Role modeling is an effective method of teaching higher-level clinical skills, such as verbal and non-verbal communication, humanism, professionalism, and teamwork. Furthermore, attitudes towards teachers' behavior among students also significantly influence their professional development and career choice (Potisek et al., 2019).

Mentorship is a compulsory requirement for the preregistration of Nursing and Midwifery students. Mentors play a crucial role in supporting students during their practical training, where they apply their knowledge, develop essential skills, and achieve the required competence needed for registration. It allows mentees to be directed by their mentors in preparation for future roles, allowing them to translate theory into practice by developing technical, teaching, clinical, and time management skills (Kolawole et al., 2019).

In Pakistan, while the significance of clinical skills and professional development for nursing interns is familiar, there is insufficient research on the integration of mentorship in hospital settings. This study seeks to fill this gap by examining mentorship performs and their impact on the clinical skills and professional development of nursing interns.

MATERIAL AND METHODS

A quasi-experimental study with pre- and post-intervention groups was conducted to assess the effect of mentorship on nursing interns' clinical skill performance and professional development at a private teaching hospital in Lahore over a period of approximately nine months, following approval from the Research Ethics Committee of The University of Lahore. The study population comprised nursing interns, and 37 participants were recruited using a convenience sampling technique. Inclusion criteria included nursing interns with foundational knowledge and clinical exposure who voluntarily agreed to participate and could attend all mentorship sessions, while exclusion criteria included students in the first three years of BSN, interns who did not consent or withdrew, those missing more than one mentorship session, or those already participating in other mentorship programs. Mentorship was defined as a

guided relationship between trained BSN registered nurses and nursing interns to enhance their professional and personal growth. Clinical skill performance was measured using the Clinical Competence Questionnaire based on Benner’s “From Novice to Expert” model, categorizing participants from novice to expert, while professional development was assessed using the Nurse Professional Competence Scale–Short Form, categorizing competence as low, good, or excellent. Data collection occurred in three phases: pre-intervention, intervention, and post-intervention. During the pre-intervention phase, baseline data were collected using the standardized tools after obtaining informed consent. The intervention phase lasted 16 weeks, during which participants attended structured mentorship sessions four times per week, supported by

six trained BSN staff mentors. Mentor training and orientation sessions ensured consistent guidance throughout the program. In the post-intervention phase, participants completed the same instruments to evaluate improvements in clinical skills and professional development. Data were analyzed using SPSS version 27, with descriptive statistics summarizing demographics and Wilcoxon signed-rank tests comparing pre- and post-intervention scores, considering $P < 0.05$ as statistically significant. Ethical considerations were strictly maintained, including obtaining written informed consent, ensuring confidentiality and anonymity, informing participants about the study purpose, procedures, and benefits, and emphasizing their right to withdraw at any time without any risk or disadvantage.

RESULTS

Demographic Characteristics of Nursing Interns

Table 1: Demographic characteristics of nursing interns (N=36)

Age in years	Frequency (f)	Percentage (%)
21-23	23	63.9
24-27	13	36.1
Gender		
Male	18	50.0
Female	18	50.0

Mean and Standard deviation of Age

Mean $\pm$ SD	23.11 $\pm$ 1.32
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The mean age of participants was 23.11 ± 1.32 years, with equal gender distribution.

Table 2: Comparison of clinical skill performance level among nursing interns in pre and post intervention groups(N=36)

Clinical skill performance level	Pre intervention	Pre intervention	Post intervention	Post Intervention	p-value
	(n, %)	Mean $\pm$ SD	(n, %)	Mean $\pm$ SD	
Novice in skill performance	12(33.3)	47.00 $\pm$ 0.00	1(2.8)	47.00 $\pm$ 0.00	0.00
Advance in skill performance	16(44.4)	74.75 $\pm$ 6.04	1(2.8)	88.00 $\pm$ 0.00	0.00
Competent in skill performance	6(16.7)	96.83 $\pm$ 0.98	8(22.0)	138.00 $\pm$ 2.92	0.00
Proficient in skill performance	1(2.8)	146.00 $\pm$ 0.00	11(30.6)	186.63 $\pm$ 10.04	0.00
Expert in skill performance	1(2.8)	200.00 $\pm$ 0.00	15(41.7)	229.60 $\pm$ 47.00	0.00

Table 2 shows that clinical skills performance level of pre- and post-intervention group. The percentage of participants classified as Novice in skill performance dropped significantly from 33.3% to 2.8 %, advanced in skill performance level decreased from 44.4% to 2.8%, Competent in skill performance increased from 16.7% to 22.0%, Proficient in

skill performance rose significantly from 2.8% to 30.6. However, Expert in skill performance show a substantial increase from 2.8% to 41.7%. The results reveal statistically significance between pre and post group with clinical skill performance level ($p < 0.05$).

Table 3: Comparison of clinical skill performance among nursing interns in pre and post intervention groups

Variable	Pre Intervention	Post Intervention	Mean difference	p-value
	Mean $\pm$ SD	Mean $\pm$ SD		
Clinical Skill Performance	74.63 $\pm$ 30.93	187.11 $\pm$ 47.00	112.48	0.00

Table 3 shows the comparison of clinical skills performance score with pre and post intervention group. The comparative results reveal a significant increase pre and post intervention from 74.63 (SD=30.93) to 187.11 (SD=47.00) supports by the mean difference of +112.48 and $p < 0.05$ using independent sample t test.

Table 4: Professional Development among nursing interns through mentorship (N=36)

Professional Development level	Pre intervention	Pre Intervention	Post intervention	Post Intervention	p-value
	(n, %)	Mean $\pm$ SD	(n, %)	Mean $\pm$ SD	
Low professional competence	24(66.7)	51.41 $\pm$ 5.50	2(5.6)	64.00 $\pm$ 5.65	0.00
Good professional competence	9(25.0)	73.00 $\pm$ 2.64	6(16.7)	103.50 $\pm$ 1.22	0.00
Excellent professional competence	3(8.3)	107.00 $\pm$ 0.00	28(77.8)	122.28 $\pm$ 7.83	0.00

Table 4 shows the Professional Development level of pre- and post-intervention group. Majority of the nursing interns 24 (66.7%) has low professional competence level, 9(25.0%) participants have good professional competence and 3(8.3%) participants have Excellent professional competence in the pre intervention group. After the intervention, the Clinical Professional Development level among the participants were enhanced where the results showed that 28(77.8%) interns have Excellent professional competence level, 6(16.7%) participants have good professional competence and only 2(5.6) have low professional competence level. The results reveal statistically significance between pre and post group with clinical Professional Development level ($p < 0.05$).

Table 5: Comparison of professional development score among nursing interns in pre and post intervention groups

Variable	Pre Intervention	Post Intervention	Mean difference	P-value
	Mean $\pm$ SD	Mean $\pm$ SD		
Professional Development	61.44 $\pm$ 17.39	115.91 $\pm$ 16.16	54.47	0.00

Results show the comparison of Clinical Professional Development score with pre and post intervention groups. The comparative results reveal a significant increase pre and post intervention from 61.44 (SD=17.39) to 115.91 (SD=16.16) supports by the mean difference of +54.47 and $p < 0.05$ using an independent sample t test

Table 6: Comparison of nurse professional competence six domain with pre and post intervention groups

Nurse professional competence domains	Items	Pre intervention	Post intervention	Mean difference
		Mean $\pm$ SD	Mean $\pm$ SD	
Nursing care	5	1.73 $\pm$ 0.45	3.23 $\pm$ 0.59	1.50
Value based nursing care	5	1.72 $\pm$ 0.58	3.35 $\pm$ 0.66	1.63

Medical technical care	6	1.81 ±0.63	3.31 ±0.60	1.50
Care pedagogic	5	1.72 ±0.67	3.32 ±0.55	1.60
Documentation and administration nursing	8	1.73± 0.58	3.31 ±0.37	1.58
Development of nursing care	6	1.75 ±0.39	3.31 ±0.46	1.56

These results show the comparison of nurse professional competence six domain with pre and post intervention group. All nurse professional competence six domain show a positive mean difference, indicating significant improvement. The Value based nursing care domain showed the highest mean difference (1.63) followed by emotional problem domain (1.60), and documentation and administration nursing (1.58). Improvements were also observed in social functioning (1.56) and at least competence show in nursing care and medical technical care (1.50). The results show a marked improvement in nurse professional competent.

Figure 1: Comparison of nurse professional competence six domain with pre and post intervention group.

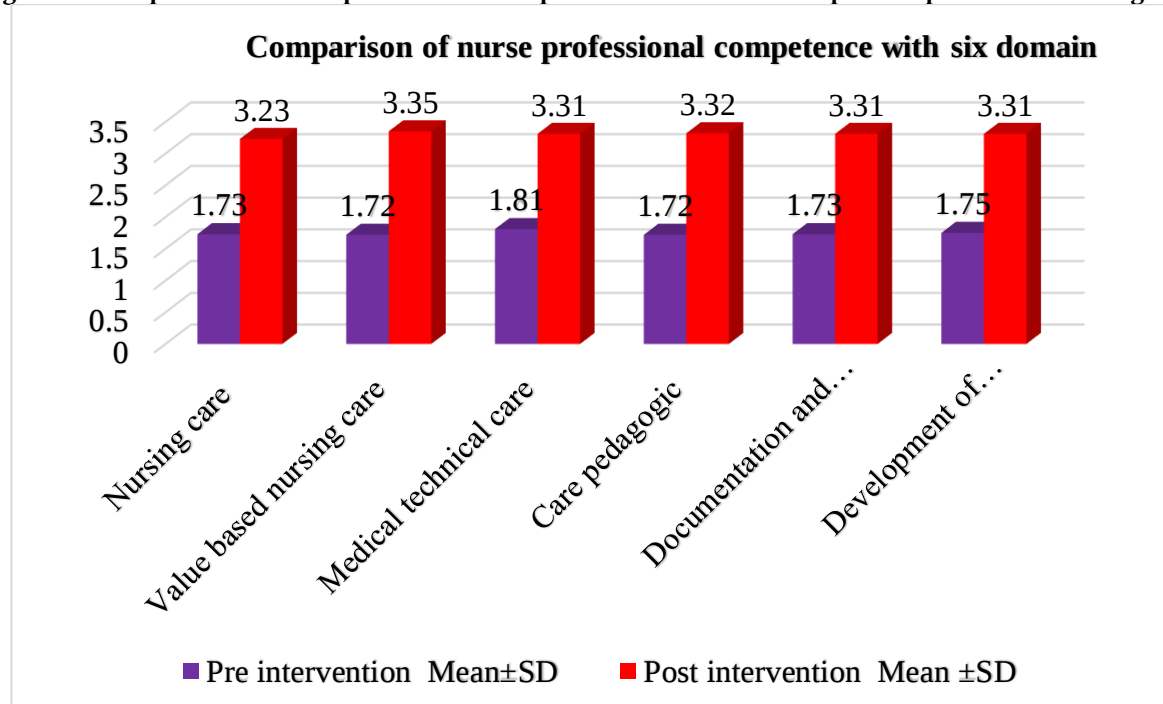


Figure 1 shows the comparison of nurse professional competence six domain with pre and post intervention group. All nurse professional competence six domain means show significant improvement. Nursing care improved from a mean of 1.73 to 3.23. Similarly, value-based nursing care increased from 1.72 to 3.35, medical technical care rose from 1.81 to 3.31, care pedagogic competence increased from 1.72 to 3.32. Documentation and administration in nursing improved from 1.73 to 3.31 and development of nursing care rose from 1.75 to 3.31.

DISCUSSION

This chapter discussed the findings of the demographic characteristics, clinical skill performance and professional development of nursing interns. The chapter also presents the researcher's interpretation, study limitations, recommendations, and the conclusion.

The findings of the present study showed that the 36 nursing interns had a mean age of 23.11 years. This is similar to a study conducted by Bacarisas and Empasis (2025) in the Philippines, where the mean age was 24 years, and most nurses were aged 20–29 (76%). These results indicate that nursing students in both studies were young adults, an age group likely to

benefit from mentorship and skill development

Regarding the clinical skill performance, the findings showed a substantial improvement in clinical skill performance following the mentorship program, with the overall mean score increasing from 74.63 to 187.11. This aligns with the findings of Lauzon (2025) from the Philippines highlighted that nurses who received structured mentorship showed significantly higher clinical confidence and clinical skill competence, with mean scores of 4.39–4.45 on a 5-point scale indicating strong confidence in work mastery, decision-making, independent care, performance, and crisis management. The current findings contrast with Nitho et al. (2020) in Iran,

which reported that poor program structure, mentor absenteeism, unprofessional behavior, and communication difficulties hindered clinical competence and professional growth. The positive improvement in clinical skill performance can be attributed to prior OSCE-based preparation before the internship and the strong emphasis on structured mentorship in a leading private institution, which supported effective skill development

Regarding the professional development, the results also demonstrate clear improvements in the professional development of nursing interns. Before the mentorship program, most interns (66.7%) had low professional competence. After the intervention, 77.8% achieved an excellent level, reflecting marked improvement in ethical practice, communication, teamwork, and leadership. The mean professional development score increased significantly from 61.44 to 115.91 ($p < 0.05$). In the same way, Narayanan et al. (2025) from Bahrain found that mentorship strongly supports nursing students' learning, professional development, and psychosocial support. Their results showed that when mentors actively facilitated learning, students demonstrated better professional growth and emotional support ($p < 0.001$). Conversely, Sarkoohi and colleagues (2024) from Iran reported that although senior nursing students' caring behaviors improved during an internship program, there were no significant changes in their professional commitment or critical thinking disposition. The significant improvement in professional development is attributed to the structured mentorship approach, which emphasized ethical practice, effective communication, teamwork, and leadership, thereby fostering holistic professional growth beyond routine clinical training.

CONCLUSION

The demographic variables showed that most interns were young adults, with equal gender representation. Following the mentorship program, clinical skill performance improved significantly, with interns progressing from novice to proficient levels in technical and cognitive skills. Professional development also increased, particularly in ethical practice, communication, teamwork, and leadership. Overall, the findings indicate that mentorship is an effective strategy for developing competent and confident nursing interns.

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