

## INTRODUCTION OF DEDICATED CLINICAL INSTRUCTOR MODEL, AND ITS EFFECTS ON NURSING STUDENTS' CLINICAL SKILLS IN CLINICAL SETTING. A QUASI EXPERIMENTAL

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DOI: <http://doi.org/10.5281/zenodo.19249116>

### Keywords

Dedicated Clinical Instructor,  
Nursing Student, Clinical  
Learning, Clinical Setting.

### Article History

Received: 27 January 2026

Accepted: 10 March 2026

Published: 27 March 2026

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### Abstract

**Background:** Dedicated clinical instruction (DCI) is a crucial component of nursing education; it allows nursing students to apply their theoretical knowledge in practice. DCI has a significant impact on the quality of clinical learning experiences. In health care settings students experience challenges: poor supervision, inadequate feedback, and difficulties putting theory into practice, which ultimately diminish the nursing skills. Moreover, DCI is the successful strategy to improve students' clinical learning, learning of skills, and professional development. Furthermore, the aim of this study is to determine how DCI enhances the nursing skills of nursing students in the clinical settings.

**Methodology:** A quasi-experimental study design was conducted from July to December 2025, this study assessed the impact of a dedicated clinical instructor model on the clinical learning outcomes of nursing students.

**Conclusion:** This study concluded nursing students' clinical skills enhanced with a dedicated clinical instructor. In addition, proper supervision and timely feedback greatly increased their competence, confidence, and professional growth.

### Introduction:

The report To Err is Human: Building a Safer Health System emphasized the critical importance of making patient safety a top priority in healthcare systems worldwide. (1) Globally, every ten patients receiving care in primary or outpatient settings, about four experience some form of harm, and nearly 80% of these incidents are preventable. In hospitals across low- and middle-income countries, approximately 134 million cases of patient harm occur each year due to unsafe care, leading to around 2.6 million deaths annually (2) Dedicated Clinical instruction (DCI) model has

paramount role on nursing faculty, which nursing faculty demonstrated and improve the nursing skills at clinical setting. Additionally, literature supported nursing faculty at clinical settings increase the professional growth, and improve nursing skills. (2,3,4) However, many nursing students encounter challenges during clinical experiences due to a lack of dedicated supervision, insufficient feedback, and inadequate application of theoretical background into practice. (3, 4) Moreover, these problems often lead to poor clinical performance, anxiety, and a lack of professional confidence. (5) Furthermore, all factors, a positive interpersonal relationship

between instructors and students had the strongest impact on learning. (6) It is commonly acknowledged that the presence of a committed clinical instructor plays a crucial role in forming the competence, self-assurance, and professional identity of nursing students. Dedicated clinical instructors who showed empathy, encouragement, and availability promoted a psychologically safe learning environment. (7) Dedicated instructors helped students translate theoretical knowledge into practical skills. dedicated instructors were perceived as facilitators of learning who actively supervised students, provided constructive feedback, and encouraged reflective practice. (8) Higher academic achievement and lower dropout rates are correlated with instructor support. Students who received consistent supervision, direction, and emotional support demonstrated significantly higher competence levels, according to the findings. (9) The instructor's mentorship skills significantly improved following the intervention. The purpose of this study is to assess how a committed clinical instructor affects the clinical learning outcomes of undergraduate nursing students. (10) Students' anxiety was reduced, learning opportunities were made available, and clinical practice was kept safe thanks to dedicated instructors 5 any undergraduate nursing degree includes a clinical practicum as a major and crucial component (11) The outcomes demonstrated enhanced clinical competence, strengthened theory-practice integration, and improved student satisfaction. (12) Mentoring prepares students for professional practice and helps in their learning. For learning and transition in clinical settings, a clinical instructor is crucial. (13) Clinical learning was significantly enhanced by instructors' fair evaluation, effective supervision, and clear instructions. (14) The overall clinical learning experiences were enhanced by dedicated instructors who encouraged active participation, critical thinking, and the identification of learning gaps. (15) Clinical placement experiences that were more pleasurable and productive were facilitated by positive relationships with instructors, which included clear direction, constructive criticism, and mentorship. (16) Professional expertise,

consideration and communication are essential characteristics. Students that performing clinical tasks they feel more secure when their instructors provide them with clear instructions and supportive guidance.

**Objectives of Study:** This study assessed the effect of Dedicated Clinical instruction (DCI) among Nursing Students' Clinical Skills in Clinical Setting among undergraduate BSN students.

**Material & Methods:** This study was Quasi-experimental study, which is conducted from July to December 2025 at Peoples Medical College Hospital Nawabshah, Sindh, Pakistan. The Purposive sampling technique was used. The sample size was determined using the Rao-soft sample size calculator at a 95% confidence level, 5% margin of error, 50% response distribution, and a target population of 152 nursing students. The required sample size was calculated as 21 students (17). The Nursing students enrolled in fourth year, and filling to participate in the study were enrolled, and studying in 1<sup>st</sup> year, 2<sup>nd</sup> year, and 3<sup>rd</sup> year were excluded from the study.

**Pre-intervention:** Before intervention, the students' clinical learning skills were checked to see their current level, which helped to assess understand what the students already know and how were they can perform basic clinical tasks, and apply theoretical knowledge. Their skills were observed in the clinical area using a checklist and simple scoring guide.

**Dedicated Clinical Instructor Intervention:** The intervention was involve assigning a dedicated clinical instructor (DCI) to guide the students throughout their clinical practice. The instructor provided proper support, interactive session conducted, demonstrated and supervised during each skill. Furthermore, each skill was performed by researchers, applied with proper techniques, with followed by the already available check list. Further, the researchers also foster a supportive learning environment, promoting confidence, motivation, and professional behavior. This focused guidance aims to enhance the students'

nursing clinical skills and overall learning outcomes during their clinical placement.

**Post-Intervention:** The post- intervention skills were measure after three of intervention. The same procedure was applied. Each students’ skills were monitored through check list, and compared with prior score. Furthermore, in this study two researcher have more than fifteen years of experience of health care settings. Throughout the study all steps were monitored to keep the patient safe, improve nursing skills, and professional growth.

**Data Collection Tool:** A self-structured research instrument used in this study, which structured on the basis of clinical learning checklist prepared after reviewing nursing literature and the guidelines of the Pakistan Nursing & Midwifery Council (PN&MC). The checklist covered important areas of clinical learning such as patient assessment, clinical procedures, communication, critical thinking, and professional behavior. Further, research instrument used by the dedicated clinical instructor before and after the intervention to measure the students’ performance in the clinical setting. Before the study ERC approved from college of nursing female Nawabshah, affiliated Peoples University of Medical & Health Sciences for Women, Shaheed Benazirabad vide letter 278. A formal written informed consent obtained from all

participants, and also informed for their right to withdraw at any stage without consequences. In addition, Confidentiality and anonymity of participants were ensured throughout the research. Moreover, data were analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Descriptive statistics, including frequencies and percentages were calculated for categorical variables, while means and standard deviations were computed for continuous variables. For inferential statistics, the T -test measure the pre, and post intervention effect. Furthermore, research instrument divided into four sections; sociodemographic section contains 04 item, clinical guidance & supervision 08 items sections, professional role modeling 08 items, and effect of DCI, and nursing practice 05 items. The research instrument comprised 21 dichotomous items with two response options (‘Agree’ and ‘Disagree’). Responses were coded numerically (1, and 0). Item scores were summed to generate a total score, with higher scores reflecting a higher level of the construct under study. The instrument was pretested for clarity and reliability prior to data collection. Face validity of the instrument was established through expert review. Subject-matter experts evaluated each item for clarity, appropriateness, and relevance to the study objectives. For the validity and reliability of the study, a pilot study was conducted, in which 25% of study were enrolled, the Cronbach's Alpha measured 0.850.

**Results:**

**Table No: 01. Distribution of Age of Subjects:**

Ser.	Item	Frequency (percentage)
1	Minimum age	21
	Maximum age	25
	Mean	22.7619
	S. D	.99523

**Table no.01.** The mean score of Age of subject 22.7 years, with S.D .995. Further minimum maximum age was 21year, and 25 years respectively.

Table. No.02 DCI Clinical Guidance & Supervision:

Domain 1: Clinical Guidance & Supervision	Before Intervention		After Intervention	
	Disagreed	Agreed	Disagreed	Agreed
1. Clinical Instructor need to Provided clear instructions before clinical procedures.	12 57.1%	9 42.8%	5 23.8%	16 76.1%
	$P = > .05$		$P = < .03$	
2. Clinical Instructor should be always available for supervision during clinical Rotation or Assignments.	13 61.9%	8 38.9%	7 33.3%	14 66.6%
	$P = > .05$		$P = < .031$	
3. I am feeling safe during my clinical rotation with Clinical Instructor.	14 66.6%	7 33.3%	6 28.5%	15 71.4%
	$P = > .05$		$P = < .039$	
4.. I am confident during my clinical rotation with Clinical Instructor	11 53.3%	10 47.6%	8 38.9%	13 61.9%
	$P = > .05$		$P = < .05$	
5. The DCI help to decline the errors in a supportive manner.	11 53.3%	10 47.6%	8 38.9%	13 61.9%
	$P = > .05$		$P = < .05$	
6. It's essential to received regular feedback to improve clinical nursing skills.	17 80.9%	4 19.0%	3 14.3%	18 85.7%
	$P = > .05$		$P = < .03$	
7. The feedback helps to improve my clinical skills.	11 53.3%	10 47.6%	5 23.8%	16 76.1%
	$P = < .05$		$P = .001$	
8. The instructor's evaluation of my performance should be based on clinical nursing skills.	18 85.7%	3 14.3%	6 28.5%	15 71.4%
	$P = > .05$		$P = .035$	

**Table No. 02 Clinical Guidance and Supervision:** Item No.01 before intervention 12(57.1%) were disagree, and after intervention 16 (76.1%,  $p = .03$ ) agreed and have significant association. Item no .02 before intervention 13(61.9%) were disagree, and after intervention 14(66.6%,  $p = < .031$ ) availability of DCI enhance the nursing skills. Item no.3 before intervention 14(66.6%) were disagree, and after intervention 15(71.4%,  $p = .039$ ), feeling safe performing clinical skills under CI. Item no.4 before intervention 11(53.3%) were disagree, and after intervention 13(61.9%,  $p = .001$ ) agreed, felt confident during my clinical rotation with CI. Item no.5 before intervention 11(53.3%) were disagree, and after intervention

13(61.9%,  $p = .001$ ) agreed, related to decline the errors in a supportive manner, and have strongly association with the DCI intervention. Item no.06 before intervention 17(80.9%) were disagreed, and after intervention 18(85.7%,  $p = .03$ ) were agreed, and regarding to regular feedback about performance increase the nursing skills. Item no.7 before intervention 11(53.3%) were disagree, and after intervention 16(76.1%,  $p = .001$ ) feedback helped to improve clinical skills. Item no.8 before intervention 18(85.7%) were disagree and after intervention 15(71.4%,  $p = .035$ ) instructor's evaluation of my performance should be based on clinical nursing skills, which was very significant for improving the nursing skills.



Table No 03. DCI to Professional Role Modeling:

Domain 2: Professional Role Modeling	Before Intervention		After Intervention	
	Disagreed	Agreed	Disagreed	Agreed
1. DCI helps in Application the clinical nursing practice in proper professional manner.	11 52.4%	10 47.6%	6 28.5%	15 71.4%
	$P = > .05$		$P = < .05$	
2. DCI motivate to improve nursing practice.	14 66.6%	7 33.3%	3 14.2%	18 85.7%
	$P = > .05$		$P = < .036$	
3. DCI helps to adopt similar / advance professional qualities / skills.	16 76.1%	5 23.8%	4 14.04%	13 80.0%
	$P = > .05$		$P = < .002$	
4. DCI enhance the skills, professional qualities, and role modeling	16 76.1%	5 23.8%	6 38.9%	15 61.9%
	$P = > .05$		$P = .001$	
5. Nursing students need to work with DCI.	19 90.4%	2 9.5 %	3 14.2%	18 85.7%
	$P = > .05$		$P = < .001$	
6. During DCI; scenario / case study encourages nursing students in learning process.	15 71.4%	6 28.5%	7 33.3%	14 66.6%
	$P = > .05$		$P = < .002$	
7. Nursing Students felt confident discussing difficulties with DCI.	18 85.7%	3 14.2	4 19.1%	17 80.9%
	$P = > .05$		$P = < .029$	
8. During DCI decrease the risk of practice-based nursing profession error.	16 76.1%	5 23.8%	6 28.5%	15 71.4%
	$P = > .05$		$P = < .013$	

**Table No. 03. DCI to Professional Role Modeling:** Item no. 01 before intervention 11(52.4%) were disagree, and after intervention 15(71.4%,  $p = < .05$ ) were agreed to instructor demonstrated professionalism in clinical practice. Item no. 02 before intervention was 14(66.6%) were disagreed, and after intervention 18(85.7%,  $p = .036$ ) were agreed, CI motivation significantly improved nursing practice. Item no.03 before intervention 16(76.1%) were disagreed, and after intervention 13(61.9%,  $p = .002$ ) adopt similar professional qualities as their instructor significantly improved skills for better clinical

outcomes. Item no.04 before intervention 16(76.1%) were disagreed, and after intervention 15(61.9%,  $p = .001$ ) were agreed, and found significant association for DCI, and this process enhance the skills, professional qualities, and role modeling. Item no.05 before intervention 19(90.4%) were disagreed, and after intervention 18(85.7%,  $p = .001$ ), students need to work with DCI. Item no. 06 before intervention 15(71.4%) were disagree  $> .05$ , and after intervention 14(66.6%,  $p = .002$ ) were agreed, case study encourages nursing students in learning process. Item no.07 before intervention 18(85.7%) were

disagreed, and after intervention 17(80.9%,  $p = .029$ ) have significant association that discussion helped the students to be confident during the procedure. Item no. 08 before intervention

16(76.1%) were disagreed, and after intervention 15(71.4%,  $p = .013$ ) were agreed, decrease the risk of practice-based nursing profession error.

**Table no.04: DCI, and Nursing Practice:**

Domain 3: DIC, and Nursing Practice	Before Intervention		After Intervention	
	Disagreed	Agreed	Disagreed	Agreed
1. Implication of DCI decrease duration of Hospitalization.	15 71.4%	6 28.5%	9 42.9%	12 57.1%
	$P = > .05$		$P = .045$	
2. DCI guidance should improve nursing skills.	18 85.7%	3 14.2%	4 19.1%	17 80.9%
	$P = > .05$		$P = < .05$	
3. DCI helps to maintain the quality care.	19 90.4%	2 9.5%	7 33.3%	14 66.6%
	$P = > .05$		$P = .021$	
4. DCI is very important to reduce the life threatening errors during the nursing care, and medication.	19 90.4%	2 9.5%	7 33.3%	14 66.6%
	$P = > .05$		$P = < .05$	
5. DCI implication increases Professional Nursing Growth in health Care Settings.	19 90.4%	2 9.5%	3 14.2%	18 85.7%
	$P = > .05$		$P = .001$	

**Table No.04 DCI, and Nursing Practice:** Item no. 01 before intervention 15(71.4%) were disagreed, and after intervention 12(57.1%,  $p = .045$ ) were agreed, regarding Implication of DCI decrease duration of Hospitalization. Item no. 02 before intervention 18(85.7%) were disagreed, and after intervention 17(80.9%,  $p < .045$ ) were agreed, have significant association with improve nursing practice. Item no. 03 before intervention 19(90.4%) were disagreed, and after intervention 14(66.6%,  $p = .021$ ), DCI helps to maintain the quality care. Item no. 04 before intervention 19(90.4%) were disagreed, and after intervention 14(66.6%,  $p = .05$ ) were agreed, and have significant association to decline the life threatening errors during the nursing care, and. Item no. 5 before intervention 19(90.4%) were disagreed, and after intervention 18(85.7%,  $p = < .05$ ), were agreed, and have significant association DCI implication increases Professional Nursing Growth in health Care Settings.

**Discussion**

This study investigated majority participants agreed, and confident for DCI implication, further indicates they DCI have sound effects on nursing education, and practice. This study revealed DIC has proper guidelines for patient-centered, and improve the nursing practice which is compared with Soroush and Andaieshgar et al. (2021) found that committed instructor performed as helpful mentors by closely monitoring students offering constructive remarks, and promoting reflective practice. These findings are very supportive to my study. (4) Additionally it is also concluded that the instructor's feedback method has improved nursing skills, helped decline the nurses related incidents, and constructive feedback essential in nursing care, which is compared to Karim and

Rizwanul et al. (2025) who found that nurses confidence level increased and their clinical anxiety significantly reduce with proper guidelines, and supervision.(17) These results are

very closed with the results of DCI implementations. Moreover, the majority of participants reported regular feedback, and suggestions have significant association, which compared Laila Al-Daken et al. (2024) which highlighted the importance of feedback in therapeutic learning. Its timely and constructive comments enhanced students' performance confidence and clinical decision-making skills.(9,10,11) Moreover , DCI feedback , CI suggestions , and its application found key components.

DCI assessed nursing students on regularly without any biasness, which increased the students learning capacity, and problem-solving techniques, compared with Youngkwan Song et al. shown in their study that students have concerns related with their feedback. However, these factors may relate to lack interprofessional collaboration. (2,7,13) Therefore, the trainer was nursing profession, and these have sound background with nursing profession, therefore DCI implication have strongly association with professional growth. During the DCI a majority of students agreed that its positive effects on nursing students, and it enhance the professionalism among nursing students during their clinical assignments, which is compared Bokan et al. (2020) which investigated assistance of committed and expert teachers enables students' skills for better clinical outcomes. (3,4,7) Moreover, DCI application nursing students build their capacity to connect the rationale of class room teaching into clinical settings. These are results are very supportive to DCI. Negi, Sharma,et al. (2025) reported committed clinical instructors assist students in putting theoretical knowledge into practice enhancing clinical skills and critical thinking. Mentorship structured guidance and feedback were found to be important for improving students' learning outcomes.(20,23)

This study revealed during DCI Nursing Students were encouraged, which significantly increased the

students' ability to scenario based clinical problems, and their critical thinking, which is compared Domnguez-Martins et al. (2025) asserted that clinical instructor significantly influences

nursing students' professional identities. Moreover, this study found that DCI also helped to improve ethical behavior, patient-centered care, and professional responsibility among NS, several studies reported that during clinical assignment risk of error increases, which is also a threat to nursing profession. However, this study also concluded the application of DCI decline the risk of clinical error significantly. (15,16). Moreover, DCI helps the students to adopt profession qualities, and found significantly affect among nursing students, which is compared to Pierce et al. (2025) found that nursing students' self-efficacy and confidence in clinical teaching tasks were considerably enhanced by clinical instructors especially guided practice and constructive feedback. Further , these educational opportunities also improved students' readiness for future teaching positions and professional accountability.(26) However , DCI is multi-dimensional effect among nursing education , skills , and its implication.

DCI actively involved the NS in learning environment, and enables their confidence level to encounter any critical situation in clinical settings, which compared to Jeanine et al. (2026) investigated students' perceptions and performance related to a range of outcomes. (38,39) However, the findings of DCI are significantly increase students learning capability with direct interaction with NI. Additionally, Wille & Opheim et al. (2025) indicated that nursing students' self-confidence significantly increased during clinical placements when clinical instructors communicated effectively. Moreover students' confidence in performing clinical skills was higher when they were given timely and responsive guidance, had active listening experiences and received clear instructions.(11,38,39,41) Moreover , DCI found sound and effective intervention among NS , which significantly enhanced the students learning skills , problem solving technique and held helps the students to decline the error in clinical settings. Further, implication of DCI also

reduces the patient burden among health provider and decreases cost on health care settings.

**Conclusion:**

This study concluded nursing students' clinical skills enhanced with a dedicated clinical instructor model. In addition, properly supervision, and timely feedback greatly enhance nursing student competence, confidence, and nursing skills.

**Recommendation:**

It strongly encouraged that institutions of nursing provide dedicated clinical instructors in clinical training programs to increase students' self-assurance and clinical learning. Future research should be conducted in among nursing institution with larger sample size for generalizability. Additionally, Long-term research should assess the long-term effects of dedicated clinical instructors on nursing students' clinical competence and nursing skills. Instructor models in clinical education programs to improve student learning and better prepare them for professional nursing practice.

**Funding:** Self.

**Conflict of Interest:** No any.

**Author contribution:** All authors contributed equally to the conception, design, and writing of this manuscript.

**Abbreviations:**

NS: Nursing Students.

DCI: Dedicated Clinical Instructor.

NI: Nursing Instructor.

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