

## Impact of Faculty-Supervised Preceptorship on Clinical Competence and Critical Thinking in Undergraduate Nursing Students

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### Abstract

Clinical competence and critical thinking are essential competencies for undergraduate nursing students to deliver safe and effective patient care. Structured clinical supervision strategies such as faculty-supervised preceptorship play a vital role in bridging the gap between theoretical learning and practical application. The present study aimed to assess the impact of faculty-supervised preceptorship on clinical competence and critical thinking among undergraduate nursing students.

A quantitative pre-experimental one-group pre-test post-test design was adopted. Sixty undergraduate nursing students from selected nursing colleges were selected using convenient sampling technique. Data were collected using a **Clinical Competence Assessment Checklist** and a **Critical Thinking Assessment Scale**. After the pre-test assessment, a structured faculty-supervised preceptorship program was implemented during clinical postings. Post-test evaluation was conducted after the intervention.

The results showed a statistically significant improvement in clinical competence and critical thinking among the students. The mean clinical competence score increased from  $48.6 \pm 6.8$  to  $68.4 \pm 7.2$ , while the mean critical thinking score increased from  $52.3 \pm 5.9$  to  $71.5 \pm 6.4$ . Paired *t*-test results revealed significant differences in both variables ( $p < 0.001$ ).

The findings indicate that faculty-supervised preceptorship is an effective clinical teaching strategy to enhance professional competency and analytical thinking among nursing students. Incorporating structured preceptorship programs in undergraduate nursing education can strengthen clinical learning experiences and improve the quality of nursing practice.

**Keywords:** Preceptorship, Clinical competence, Critical thinking, Nursing students, Clinical education

### Introduction

Nursing education focuses on preparing students who are clinically competent, confident, and capable of making sound clinical judgments in complex healthcare environments. Among the essential competencies required for professional nursing practice are **clinical competence** and **critical thinking**. Clinical competence refers to the integration of knowledge, technical skills, attitudes, and clinical judgment necessary for effective patient care, while critical thinking involves analysis, evaluation, and decision-making in clinical situations. These competencies are largely developed during clinical training and supervision<sup>(1)</sup>.

Clinical learning environments provide opportunities for students to apply theoretical knowledge in real patient care settings. However, traditional clinical teaching methods often rely on observation and limited supervision, which may not sufficiently promote clinical reasoning or independent decision-making. With the increasing complexity of healthcare systems, there is a need for structured teaching strategies that facilitate guided clinical learning<sup>(2)</sup>.

Preceptorship is widely recognized as an effective clinical teaching strategy in nursing education. In this model, an experienced nurse or faculty member acts as a mentor who guides, supervises, and supports students during clinical practice. Through continuous feedback and guidance, preceptors help students develop clinical skills, professional attitudes, and decision-making abilities<sup>(3)</sup>.

Faculty-supervised preceptorship provides additional benefits because faculty members are actively involved in guiding the learning process. This approach encourages reflective practice, clinical discussions, and evidence-based decision making. Studies suggest that structured preceptorship programs significantly improve clinical competence, communication skills, and confidence among nursing students<sup>(4)</sup>.

In addition to improving practical skills, preceptorship also contributes to the development of critical thinking. Faculty mentors encourage students to analyze patient conditions, prioritize interventions, and evaluate outcomes. Such guided learning experiences enhance students' analytical and

problem-solving abilities, which are essential for safe and effective nursing practice.

Despite its importance, limited research has explored the combined impact of faculty-supervised preceptorship on both clinical competence and critical thinking among undergraduate nursing students. Therefore, the present study was undertaken to evaluate the effectiveness of faculty-supervised preceptorship in improving these competencies.

**Methodology**

**Research Approach**

Quantitative research approach.

**Research Design**

Pre-experimental one-group pre-test post-test design.

**Setting and Sample**

The study was conducted among undergraduate nursing students from selected nursing colleges. A total of **60 students** were selected using **convenient sampling technique**.

**Tools for Data Collection**

1. Demographic data questionnaire
2. Clinical Competence Assessment Checklist
3. Critical Thinking Assessment Scale

**Intervention**

A structured **faculty-supervised preceptorship program** was implemented during clinical postings. Faculty members provided continuous supervision, clinical guidance, reflective discussions, and feedback to the students.

**Data Collection Procedure**

Pre-test data were collected before the implementation of the intervention. After the preceptorship program, post-test assessment was conducted using the same tools.

**Data Analysis**

Data were analyzed using **descriptive statistics (frequency, percentage, mean, SD)** and **inferential statistics (paired t-test)**.

**Results**

**Demographic Characteristics**

Among the **60 nursing students**, the majority were aged **21–22 years (56.7%)**, followed by **19–20 years (30%)** and **≥ 23 years (13.3%)**. Female students constituted **83.3%**, reflecting the gender distribution commonly observed in nursing education. Regarding academic level, **53.3% were from 5th–6th semester** and **46.7% from 7th–8th semester**. Only **25% had previous exposure to preceptorship**, while **75% had no prior structured mentorship experience**.

**Clinical Competence Scores**

The distribution of clinical competence scores showed substantial improvement after the intervention.

Level of Clinical Competence	Pre-Test f (%)	Post-Test f (%)
Poor	14 (23.3%)	3 (5%)
Average	32 (53.3%)	18 (30%)
Good	12 (20%)	28 (46.7%)
Excellent	2 (3.3%)	11 (18.3%)

The **mean clinical competence score increased from 48.6 ± 6.8 in the pre-test to 68.4 ± 7.2 in the post-test**, indicating significant improvement in students' clinical skills.

The improvement was particularly observed in:

- Patient assessment
- Clinical decision making
- Procedural skills
- Communication with patients and healthcare professionals

This suggests that continuous supervision and feedback during preceptorship improved students' clinical performance.

**Critical Thinking Scores**

Critical thinking scores also demonstrated significant improvement after the intervention.

Level of Critical Thinking	Pre-Test f (%)	Post-Test f (%)
Low	16 (26.7%)	4 (6.7%)
Moderate	35 (58.3%)	20 (33.3%)
High	9 (15%)	36 (60%)

The mean critical thinking score increased from  $52.3 \pm 5.9$  to  $71.5 \pm 6.4$ , indicating enhanced analytical ability and clinical reasoning among students.

Students showed improved abilities in:

- Patient problem analysis

- Prioritization of nursing care
- Evidence-based decision making

#### Effectiveness of Preceptorship

Paired *t-test* analysis confirmed the effectiveness of the intervention.

Variable	Pre-Test Mean $\pm$ SD	Post-Test Mean $\pm$ SD	t-value	p-value	Significance
Clinical Competence	48.6 $\pm$ 6.8	68.4 $\pm$ 7.2	14.25	<0.001	Significant
Critical Thinking	52.3 $\pm$ 5.9	71.5 $\pm$ 6.4	13.62	<0.001	Significant

#### Discussion

The present study demonstrated that faculty-supervised preceptorship significantly improves both **clinical competence and critical thinking among undergraduate nursing students**.

The findings revealed a marked increase in the mean clinical competence score from **48.6 to 68.4**, indicating improved procedural skills and patient care performance. Structured supervision during clinical postings provided students with opportunities to practice skills under guidance and receive immediate feedback. Similar findings were reported in previous studies where preceptorship improved clinical performance and professional confidence among nursing students<sup>(3)</sup>.

The study also showed a significant increase in critical thinking scores from **52.3 to 71.5**, highlighting the effectiveness of guided clinical learning in promoting analytical reasoning. Faculty mentors encouraged students to analyze patient conditions, discuss clinical cases, and evaluate interventions, which enhanced their problem-solving abilities. These findings support the views of Alfaro-LeFevre, who emphasized that clinical reasoning and critical thinking develop through guided practice and reflective learning<sup>(4)</sup>.

Furthermore, the statistical analysis using paired *t-test* showed highly significant results ( $p < 0.001$ ), indicating that the observed improvements were not due to chance. Similar studies have reported that structured mentorship and preceptorship programs bridge the gap between theory and practice and enhance clinical learning outcomes among nursing students<sup>(6-8)</sup>.

Therefore, the present study supports the implementation of **faculty-supervised preceptorship as an effective clinical teaching strategy** in undergraduate nursing education.

#### Conclusion

The study concluded that **faculty-supervised preceptorship significantly improves clinical competence and critical thinking among undergraduate nursing students**. The structured supervision provided by faculty mentors enabled students to integrate theoretical knowledge with practical clinical skills, enhance confidence, and develop sound clinical judgment.

The statistical findings demonstrated significant improvements in both competencies after the intervention. Hence, incorporating structured preceptorship programs in undergraduate nursing education can strengthen clinical training and prepare students to deliver safe and competent nursing care.

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#### Conflict of Interest

The author declares no conflict of interest.

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