

## The Role of Nurse Mentoring in Enhancing Nursing Students' Clinical Competence -A Cross-Sectional Study

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### Abstract:

Clinical practice is an essential component of nursing education, aimed at developing students' competencies in real healthcare settings. The role of clinical nurse mentors is a key external factor influencing the success of students in achieving clinical competence. This study aimed to analyze the correlation between nursing students' perceptions of nurse mentoring and their clinical competence achievement. This type of research is quantitative correlative analytic with a cross-sectional research design, namely by measuring variables at a certain time. The sample consisted of 82 nursing students from University A who had completed their clinical practice, selected through purposive sampling. Research instruments included a questionnaire on students' perceptions of nurse mentoring and a clinical competence achievement questionnaire. Data analysis was performed using the Spearman correlation test. The results showed that most students had a positive perception of nurse mentoring (86.6%) and achieved clinical competence in the "good" category (93.9%). A significant relationship was found between students' perceptions of nurse mentoring and their clinical competence ( $r = 0.698$ ;  $p < 0.05$ ), with the evaluation domain showing the strongest correlation ( $r = 0.650$ ). These findings suggest that the more positive students' perceptions of their clinical mentors, the higher their level of clinical competence. Associating the role of clinical mentors through training and ongoing evaluation is essential to support effective learning outcomes in nursing clinical education.

**Keywords:** student perception, nurse mentoring, clinical competence, mentorship evaluation, education

Submitted: 17 July 2025, reviewed: 21 October 2025, revised: 22 December 2025, accepted: 23 December 2025, published: 31 January 2026

### INTRODUCTION

Nursing students can apply the theoretical knowledge they learn in lectures to actual healthcare settings through clinical experience. In addition to improving their knowledge, clinical skills, and professional attitudes, this experience helps students comprehend the gap between theory and practice (Hairunisya, 2021). Additionally, clinical practice is essential for educating students for the ever-changing demands of the nursing profession.

Clinical learning does not, however, usually go as planned. Due to their clinical workload, students frequently encounter difficulties like the lack of advice from nurses. Anxiety, decreased motivation, and impeded competency growth can result from this absence of supervision (Sugiharno et al., 2022). Clinical nurses' variable attitudes, unsupportive learning environments, and poor communication are further obstacles (Al-Daken et al., 2024).

In order to help students apply theoretical knowledge to professional practice, nurses serve as preceptors in clinical nursing education, which is essentially a learning-by-doing method (Saman,

2022). Successful competency development is determined by students' capacity to assimilate, comprehend, and apply clinical instructions as well as adjust to the dynamics of the learning environment. Measurable learning outcomes that demonstrate students' capacity to carry out nursing tasks successfully are referred to as clinical competency. Clinical achievement is significantly influenced by both external and internal elements (e.g., learning strategies, quality of nursing mentorship, prior knowledge) ([Oktorullah et al., 2020](#)).

According to earlier research, students who have a poor opinion of clinical supervision typically exhibit lower competency achievement ([Ravik et al., 2025](#)). Students who receive excellent mentoring, on the other hand, report increased self-assurance and demonstrated skill growth ([Buhari et al., 2020](#)) further emphasize that the uneven conduct of nurse mentors frequently causes stress for students in clinical settings. Additionally, preliminary results indicate that mentors' unapproachable attitudes and mood swings deter students from participating in clinical discourse, which has a detrimental effect on their competency development ([Soroush et al., 2021](#)).

This study makes a novel contribution by situating its analysis within the Indonesian nursing education context, which is characterized by hierarchical professional relationships, high clinical workloads, and limited structured supervision. Unlike most previous studies that conceptualize clinical mentoring as a single construct, this research employs a domain-based approach by examining five specific dimensions of clinical nurse guidance, including the evaluation domain, which remains underexplored despite its central role in competency-based education. By identifying how individual mentoring dimensions differentially relate to students' clinical competence, this study not only extends prior findings but also challenges the assumption that mentoring uniformly influences learning outcomes, thereby providing context-sensitive evidence to inform more targeted and effective clinical education strategies.

## METHODS

This study employed a quantitative analytical correlational design with a cross-sectional approach, in which observation and measurement of variables were conducted at a single point in time ([Adiputra et al., 2021](#)). The population consisted of 108 regular students from the Nursing Science Program at University A, class of 2022. The sample was selected using a non-probability sampling technique with a purposive sampling approach. Inclusion criteria include students who are registered as active students in the Nursing Science Study Program at University A and students who have experience undergoing field work practice in hospitals. Exclusion criteria include students who are not registered as active students in the Nursing Science Study Program at University A, students who are on academic leave and students who have never undergone field work practice in hospitals. This study examined two main variables: students' perceptions of clinical nurse guidance as the independent variable and students' clinical competency achievement as the dependent variable.

Student perceptions of clinical nursing mentoring were measured using a structured questionnaire consisting of 25 items across five domains: teaching ability, nursing competency, evaluation, interpersonal relationships, and personality. Responses were scored using a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Student competency achievement was measured using a structured questionnaire consisting of 25 items across five domains: ethics and accountability, general clinical nursing skills, lifelong learning, clinical biomedical science, and caring. Responses were scored using a four-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). Validity and reliability tests of the instrument were conducted on nursing students from several institutions who met the inclusion criteria, namely active students and had carried out field work practice in hospitals, by taking a sample of 30 students. Validity tests were conducted by distributing questionnaires. The results showed that all validity scores were greater than the r-table value of 0.361, and the reliability coefficients were above the required alpha (Cronbach's Alpha > 0.976 and 0.966).

Ethical approval was obtained from the Ethics Committee of Universitas Esa Unggul (No: 0925-01.112/DPKE-KEP/FINAL-EA/UEU/II/2025). All participants signed informed consent forms and completed the questionnaire based on their personal perceptions. The collected data were coded,

entered into a computer, and analyzed. Univariate and bivariate analyses were performed. Univariate analysis using descriptive statistics was employed to determine respondent characteristics, students' perceptions of nurse mentoring, and clinical competence achievements. Bivariate analysis used Spearman correlation tests to examine the relationship between perceptions of nurse mentoring and students' clinical competence. The sample size was calculated using Slovin's formula with a margin of error (e) of 0.05. Based on a total population of 108 nursing students, the minimum required sample size was 82 respondents. The use of a 5% margin of error was selected to balance statistical precision and feasibility in data collection.

## RESULTS

### Respondent Characteristics

The characteristics of the respondents in this study include gender and age, presented in table below:

Table 1. Respondent Characteristics

Respondent Characteristics	Frequency (N)	Percentage (%)
<b>Gender</b>		
Male	12	14.6
Female	70	85.4
<b>Age</b>		
20 years	32	39.0
21 years	42	51.2
22 years	8	9.8

[Table 1](#) shows that the majority of respondents were female (85.4%), while males accounted for 14.6%. In terms of age, most respondents were 21 years old (51.2%), followed by 20 years old (39.0%) and 22 years old (9.8%).

### Nursing Mentorship Perception

The results related to student perceptions of nursing mentorship are presented at [Table 2](#):

Table 2. Students' Perception of Nurse Mentorship

Perception of Nurse Mentorship	Frequency (n)	Percentage (%)
Positive Perception	71	86.6
Moderate Perception	11	13.4
Negative Perception	0	0

[Table 2](#) indicates that the majority of respondents (86.6%) had a positive perception of nurse mentorship, while 13.4% had a moderate perception. None of the respondents reported a negative perception.

[Table 3](#) demonstrates that most students had a positive perception across all domains of nurse mentorship. The highest positive perception was observed in the domain of teaching ability (84.1%), followed by nursing competence (78.0%), evaluation (76.8%), interpersonal relations (76.8%), and personality (76.8%). Only 1.2% of students reported a negative perception in the domain of interpersonal relations.

Table 3. Respondent Characteristics

Domain	Perception of Nurse Mentorship					
	Positive		Moderate		Negative	
	Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)	Frequency (n)	Percentage (%)
Teaching Ability	69	84.1	13	15.9	0	0
Nursing Competence	64	78	18	22	0	0
Evaluation	63	76.8	19	23.2	0	0
Interpersonal Relations	63	76.8	18	22	1	1.2
Personality	63	76.8	19	23.2	0	0

### Students' Clinical Competence Achievement

The following are the results of students' clinical competency achievements:

Table 4. Clinical Competence Achievement

Clinical Competence degree	Frequency (n)	Percentage (%)
High Competence	77	93.9
Moderate Competence	5	6.1
Low Competence	0	0

Table 4 reveals that the majority of students (93.9%) demonstrated a high degree of clinical competence, while 6.1% drew moderate achievement. None of the students were classified as having low competence.

### Correlation among Nurse Mentorship Perception and Clinical Competence

The analysis of the relationship between students' perceptions of nurse mentorship and their clinical competence achievement is presented at Table 5.

Table 5. Correlation among Nurse Mentorship Perception and Clinical Competence Achievement

Variable	Spearman Correlation (r)	Sig. (2-tailed)
<b>Overall Perception</b>	<b>0.698</b>	<b>0.00</b>
Teaching Ability	0.626	0.00
Nursing Competence	0.598	0.00
Evaluation	0.650	0.00
International Relations	0.583	0.00
Personality	0.438	0.00

Table 5 indicates a significant positive correlation between students' perception of nurse mentoring and their clinical competence ( $r = 0.698$ ,  $p < 0.05$ ).

## DISCUSSION

### Respondent Characteristics

Most respondents in this study were female nursing students around 21 years old. This is characteristic of Indonesian nursing education, where women predominate in the field. Due to the profession's historical and cultural appeal to women, there are currently 583,347 registered nurses in Indonesia ([Kementrian Kesehatan RI, 2024](#)), with 70% being female ([Taufan et al., 2024](#)) as the profession has been historically and culturally more attractive to women.

The majority of respondents were female, which implies that their perceptions of mentorship and other aspects of their clinical learning experiences may be influenced by gender-related communication styles. Women tend to talk more honestly and sympathetically, which may have a favorable impact on how they perceive nurse mentorship. Furthermore, as the majority of students were around 21 years old, the rather uniform age range indicates that they were probably in similar stages of professional and cognitive development, which is crucial for guaranteeing consistent impressions of clinical learning.

### **Students' Perception of Nurse Mentorship**

For nursing students, clinical mentorship is essential because it enables them to make the connection between theory and practical application. During clinical assignments, seasoned nurses act as mentors, helping students develop critical competencies, social skills, and professional confidence ([Ebu Enyan et al., 2021](#)). By allowing students to watch and learn firsthand from seasoned professionals in authentic healthcare settings, clinical learning enhances their educational experiences ([Umar et al., 2022](#)).

The study's findings indicate that students generally had a favorable opinion of nurse mentorship during clinical practice. This implies that University A's nurses effectively fulfilled their responsibilities as mentors to nursing students. These results imply that the clinical mentorship programs already in place are effective. The assistance and direction that nurses provide is crucial for students' clinical skill development. Strong communication skills, empathy, and a clear understanding of their teaching obligations are therefore crucial for clinical mentors ([Asmirajanti et al., 2021](#)). Teachers must be empowered as vital human resources in higher education by appropriate acknowledgment, continued assistance, and professional growth. Their motivation to provide transformative learning experiences is increased by this empowerment ([Luukkonen et al., 2023](#)).

Additionally, the study found that most students had positive perceptions of nurse mentorship in all areas, with the highest rating given to teaching ability (84.1%). This supports the idea that clinical mentors are successfully providing effective learning and helping students apply their skills in real-world settings ([Gregersen et al., 2021](#)). In order to guarantee that students obtain the most beneficial and successful learning opportunities, educational institutions and healthcare facilities should consistently strive to raise the bar for nurse mentorship. Perceptions of the success of clinical mentoring impact student satisfaction, improve information acquisition, and assist students' personal and professional growth.

### **Students' Clinical Competence**

Increasing nursing education is crucial for preparing graduates to become professional nurses. The combination of knowledge, abilities, and attitudes that enable students to provide nursing care effectively and efficiently is referred to in this study as competency ([Saman, 2022](#)). Ideally, nursing competence is built on three key pillars: evidence-based practice, standard of care, and patient safety ([Asmirajanti et al., 2023](#)).

The study concluded that 93.9% of students demonstrated good clinical competence. This demonstrates how successful clinical mentoring is in assisting students in meeting the professional standards required of nurses ([Liu et al., 2022](#)). To make sure that students are ready to handle the challenges of professional practice in real-world situations, these abilities must be continuously monitored and evaluated ([Finstad et al., 2022](#)).

Critical thinking, therapeutic communication, a variety of nursing abilities from fundamental to advanced, and the application of structured communication methods like SBAR to improve patient safety are all components of clinical competence ([Jeong & Kim, 2020](#)). Additionally, it incorporates

cross-cutting abilities like professionalism, teamwork, and self-efficacy ([Peiró et al., 2020](#)). Self-confidence forms the foundation for students to build their professional identity, that is greatly shaped by the support and mentoring they receive from clinical mentors ([Cheng et al., 2021](#)).

### **Correlation among Nurse Mentorship Perception and Clinical Competence**

The development of students' clinical competence is greatly influenced by their opinions of nurse mentorship. In addition to boosting students' self-esteem, good instruction and mentoring prepare them for their future careers. Thus, it is crucial to improve communication, plan clinical learning activities, and assist students throughout their placement ([Voldbjerg et al., 2022](#)).

The study found a significant relationship between students' perceptions of nurse mentorship and their clinical competence achievement. Spearman correlation analysis has drawn a strong positive correlation ( $r = 0.698$ ,  $p < 0.05$ ), suggesting that enhanced student perceptions of nurse mentorship are linked to greater degrees of clinical competence.

The evaluation domain had the greatest association ( $r=0.650$ ), according to an additional study, underscoring the crucial role mentors play in evaluating and assisting students' clinical competence ([Hasnawati, 2023](#)) who stressed that assessment and monitoring activities are crucial elements of successful therapeutic learning, supports this conclusion.

The results of this study show a positive relationship between students' attainment of clinical mentorship. This result is consistent with research conducted in South Africa, which discovered that mentor and clinical environment characteristics impact students' capacity to apply theory to practice during clinical mentoring ([Sella et al., 2023](#)). Furthermore, [Rasi et al., \(2024\)](#) revealed that nurses who had received formal mentoring training had superior mentoring competencies, indicating that mentor quality influences students' clinical learning outcomes. Mentor competence plays a complex role in helping students achieve excellent clinical experiences.

Additionally, students tended to estimate their own competency higher when they had favorable opinions of the clinical learning environment and supervision. In addition to increasing students' happiness with their nursing education, a supportive learning environment and consistent mentoring also reduce the risk that they will leave the field after graduation ([Visiers-Jiménez et al., 2021](#)). Nursing students recognize effective clinical mentorship as important for developing their competence, highlighting the need for strong mentor support and collaboration by academic faculty to foster meaningful clinical learning experiences ([Zaitoun et al., 2023](#)).

There are a number of limitations to this study. Because it was conducted at only one university, the results may not be applicable to other institutions. The self-administered questionnaire may introduce response bias, as students may overestimate their perceptions or level of competence. It is advised that future research employ a mixed-methods or longitudinal strategy to confirm and build upon these findings.

### **CONCLUSION**

The study's findings show a strong correlation between students' clinical competency and how they see nurse mentorship. Higher levels of competence during clinical practice, particularly in the evaluation domain, were strongly correlated with favorable opinions of the mentorship norm. In order to promote students' development into competent and professional nurses, educational institutions and healthcare facilities must continue to provide high-quality, consistent clinical supervision.

Educational institutions should support the development of clinical nurse mentors through continuous pedagogical training and structured evaluation systems. Healthcare facilities are encouraged to foster a supportive clinical environment and promote collaboration with academic institutions. Future research may explore qualitative perspectives or include additional variables, such as self-efficacy and clinical stress.

### **ACKNOWLEDGMENT**



The authors would like to thank the staff and students of the Department of Nursing, Faculty of Health Sciences, Esa Unggul University, Jakarta, for their support of this research.

#### **AUTHOR CONTRIBUTION**

MA: contributed to the development of the idea, data processing, Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing

NN: contributed to the development of the idea, data collection, processing, and presentation, and the preparation of the article, Writing - Original Draft, and Writing - Review & Editing.

All authors accept the final manuscripts.

#### **ETHICAL APPROVAL AND CONSENT**

The Health Research Ethics Committee, Faculty of Health Sciences, Esa Unggul University (No: 0925-01.112/DPKE-KEP/FINAL-EA/UEU/II/2025) approved this research protocol. The purpose and procedures of the study were explained to the participants, and they were free to withdraw from the study. All participants voluntarily participated in the study and signed informed consent.

#### **FUNDING SOURCES**

This study received no external funding.

#### **CONFLICT OF INTEREST**

The authors hereby declare that there's no conflict of interest in this study, either to any institutions or individuals

#### **DATA AVAILABILITY STATEMENT**

The data supporting the findings of this study are not publicly available due to privacy or ethical constraints.

#### **PROTOCOL REGISTRATION**

This study was not registered.

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