

# Improving Clinical Nurses' Competence through Peer Teaching

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Received : 30-03-2024

Revised : 17-05-2025

Accepted : 21-05-2025

## Abstract

**Background:** Nurses continuously interact with patients and provide interventions according to their needs and responses over a 24-hour period. Given this vital role, clinical nurses must maintain a high level of competency to ensure the quality and safety of patient care. Hospitals are therefore required to establish training programs that address the developmental needs of their staff, aiming to meet a service standard of at least 20 hours of training per year. However, the average training achievement among external employees often falls short, making it essential to explore alternative strategies to enhance learning hours and workforce competencies. One such method is peer teaching. **Method:** This study employed a descriptive analysis approach. The implementation of peer teaching activities was conducted in several phases: the preparation phase, the implementation phase, and the evaluation phase. **Results:** The findings revealed that the average pre-test score was 75, while the average post-test score increased to 91. Observations during the process indicated that clinical nurses actively participated in discussions throughout the peer teaching sessions. **Discussion:** The peer teaching method significantly enhances learning motivation and encourages active student engagement. Rather than passively listening and taking notes, students become directly involved in the learning process, contributing ideas and interacting with peers. This engagement supports improved long-term retention of knowledge. **Conclusion:** Peer teaching positively influences the improvement of clinical nurses' competencies. Further in-depth studies are recommended to explore the impact of this method on learning satisfaction.

**Keywords:** Clinical Nurse, Peer Teaching, Competence

## INTRODUCTION

According to Sciarretta et al., hospitals are essential healthcare service units that provide direct care to the community and employ a large proportion of healthcare workers, particularly nurses (1). Nurses represent more than half of the human resources in hospitals and are essential in maintaining continuity and quality of care (2). Based on the professional career ladder, nurses are categorized into clinical nurses, nurse managers, nurse educators, and nurse researchers (3). In clinical care settings, nurses are core members of the healthcare team and play a crucial role in managing and caring for patients (4). Nurses interact with patients around the clock, providing continuous assessment, evaluation, and appropriate interventions according to patient needs and responses (5). Considering this vital role, maintaining the competency of clinical nurses is fundamental to ensuring quality and patient safety in care delivery (6). Competency assurance should begin during recruitment and continue as part of ongoing professional development once nurses are employed in hospitals (7). Improving clinical nurses' competence is not solely the responsibility of individual nurses, but also requires support from the hospital

unit to facilitate continuous professional development (8). According to the Indonesian Ministry of Health Decree No. 129/Menkes/SK/II/2008 on Minimum Service Standards for Hospitals, each hospital employee is required to complete a minimum of 20 hours of training annually (9). This includes all non-formal training activities conducted either within or outside the hospital aimed at enhancing employees' competencies. To fulfill this requirement, hospitals must develop structured training programs that ensure all employees meet the 20-hour standard, with a minimum achievement rate of 60% (9). This can be achieved through external participation—such as seminars or workshops—or internal programs organized by the institution. However, external training often faces barriers such as high costs and misalignment with specific clinical needs (10). Therefore, training programs must be tailored to the practical and contextual needs of clinical nurses.

Employees attending external training are expected to disseminate the acquired knowledge to colleagues through internal sharing sessions, allowing broader benefits across the workforce. Since not all staff can participate in external training due to limited resources, an internal knowledge-sharing strategy is necessary to increase annual training hours and competency levels. One effective approach is peer teaching, a form of collaborative learning in which nurses share materials and experiences with their peers (11).

Several studies have identified peer teaching as an effective educational strategy in nursing education. It enhances self-efficacy, collaborative behavior, and clinical performance among learners (12). Moreover, peer-led discussions support learners in generating new knowledge and selecting accurate responses through reflective interaction (13). Thus, the question arises: can the implementation of peer teaching in clinical settings yield a similar positive impact on clinical nurses' competencies?

## METHODS

This study was conducted to examine the impact of implementing peer teaching on improving the competence of clinical nurses. The analytical approach used in this research was descriptive analysis. The peer teaching activities were carried out through three main phases: the preparation phase, the implementation phase, and the evaluation phase.

During the preparation phase, the following steps were taken: Identifying a group of clinical nurses to participate as learners; Conducting a needs assessment to determine the relevant topics or learning needs required by the clinical nurses; Selecting peer facilitators—nurses who had previously attended training or received relevant materials—to act as peer educators in accordance with the identified learning needs. In the implementation phase, peer teaching was conducted with a total of 24 clinical nurses grouped into a single learning cohort, facilitated by three peer educators. The sessions were delivered in both classical (face-to-face) formats and asynchronous methods. The learning process included an opening session, followed by a pretest, instructional delivery, and concluded with a posttest evaluation. The evaluation phase involved assessing both the learning process and the achievement of learning outcomes, as measured by improvements in the posttest scores. This phase aimed to evaluate not only knowledge acquisition but also the effectiveness of the peer teaching model in clinical settings.

## RESULT AND DISCUSSION

### Result

Table 1. Characteristics Respondent

Characteristics	Jumlah	
	n	%
<b>Age</b>		
20-30 Years	3	12,5
31-40 Years	16	66,7
41-50 Years	1	4,2
>50 Years	4	16,7
<b>Education</b>		
Diploma	19	79,2
Bachelor	4	16,7
Master	1	4,2
<b>Work Experience</b>		
1 – 5 Years	1	4,2
6 – 10 Years	13	54,2
>years	10	41,7

Source : Primery data 2024

Table 1 presents the demographic and professional characteristics of the study respondents. The majority of participants were aged between 31–40 years (66.7%), followed by those aged over 50 years (16.7%), 20–30 years (12.5%), and 41–50 years (4.2%). In terms of educational background, most respondents held a diploma in nursing (79.2%), while 16.7% had a bachelor's degree and only 4.2% had attained a master's degree. Regarding work experience, more than half of the respondents had 6–10 years of clinical experience (54.2%), 41.7% had over 10 years of experience, and only 4.2% had 1–5 years of experience. These findings suggest that the majority of clinical nurses involved in the study were mid-career professionals with moderate to extensive work experience and primarily diploma-level education.

Table 2. Comparison of Pretest and Posttest Scores of Clinical Nurses

Assessment	Highest Score	Lowest Score	Mean Score	Purpose
Pretest	80	40	75	To assess baseline competence of clinical nurses before the intervention
Posttest	100	75	91	To assess clinical nurses' competence after the peer teaching intervention

Source: Primary data, 2024.

The pretest results showed that the highest score achieved by clinical nurses was 80, while the lowest was 40. The average pretest score was 75. The pretest was conducted to measure the baseline competence of clinical nurses prior to the intervention. After the nurses participated in the learning process, a posttest was administered. The posttest results indicated an increase in performance, with the highest score reaching 100 and the lowest being 75. The average posttest score was 91. The posttest aimed to assess the clinical nurses' competence following the intervention and to compare it with their initial competence level before the implementation of the peer teaching method.

## **Discussion**

### **The Effect of Peer Teaching on Improving Clinical Nurses' Competence**

Based on the pretest and posttest results, an increase of 16 points was observed in the average score, indicating an improvement in the clinical nurses' competence after participating in peer teaching activities. Observational data also showed that nurses were actively engaged in discussions during the sessions, reflecting high participation and enthusiasm in exploring the assigned topics. This finding is consistent with previous studies in educational settings, which have demonstrated that peer teaching significantly enhances learning motivation and encourages active involvement in the learning process (14-16). Instead of being passive learners who simply take notes and listen to lectures, learners in peer teaching environments become actively engaged through collaboration with their peers.

Competency development is a continuous process of enhancing knowledge, attitudes, and skills. The level of competency achieved by each individual varies and is influenced by several factors. These factors include: (14) work experience, (15) type of nursing environment, (16) level of education, (17) adherence to professional standards, (18) critical thinking ability, and (19) personal factors. Among these, work experience and educational background have been found to be significant contributors to competency development in clinical nursing (20).

Beyond the benefits for learners, peer teaching also has a positive impact on those who act as peer educators. Nurses who assumed teaching roles reported that the process required them to prepare discussion materials and develop the confidence to speak publicly. This supports prior findings that peer teaching improves not only communication skills and the ability to convey ideas but also motivation and self-confidence among facilitators (14,18).

Peer teaching is conducted by empowering high-achieving learners to deliver instructional content to their peers, with the goal of achieving mastery learning across the group. This approach integrates the concept of mastery learning and reinforcement. It goes beyond content delivery by incorporating practical exercises and discussion to deepen understanding, thereby fostering a collaborative learning environment (14). Peer teaching is a cognitively rich process, where learners engage in meaningful group dialogue, effectively supporting long-term retention (15). It is regarded as a promising teaching and learning strategy in health professions education, positively influencing both theoretical knowledge and procedural skills (20).

Nevertheless, like any other instructional method, peer teaching has its strengths and limitations. The advantages include: (14) learners develop independence in choosing how to present materials; (15) peer educators become more empathetic and develop loyalty and willingness to help; (16) learners feel more comfortable asking questions to peers; (17) content is better understood when explained in a familiar language; and (18) peer educators gain teaching experience. These limitations can be minimized by providing peer educators with training based on established syllabi or learning plans to ensure learning objectives are achieved (15). Overall, students report satisfying learning experiences with peer teaching, although some challenges related to instructional skill may still occur (21).

## **CONCLUSION**

Based on the findings of this study regarding the effect of peer teaching on improving clinical nurses' competence, it can be concluded that peer teaching has a positive impact on enhancing the competence of clinical nurses. Clinical nurses are encouraged to continuously improve their competence and capacity through both internal and external training programs. Furthermore, they are expected to

develop the ability to serve as peer educators in order to support their fellow nurses in achieving the desired level of clinical competence.

It is also recommended that further studies be conducted to explore learning satisfaction with the peer teaching method, particularly through large-scale research, in order to generate more accurate, representative, and applicable data. Hospital management is urged to ensure the achievement of the minimum service standard of 20 hours of annual training for all employees, especially clinical nurses, as they serve as the frontline providers of patient care.

## ACKNOWLEDGEMENTS

The authors would like to express their sincere gratitude to RSUD X and all parties who have contributed to this study, both directly and indirectly.

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