

Factors Affecting the Efficiency of Nurses Performance Using The Team Nursing Method in Hospitals: Systematic Literature Review

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ABSTRACT

Background & Objective: Nurses' performance efficiency plays a crucial role in supporting the quality of hospital services. One nursing care delivery method considered effective in improving nurses' performance efficiency is the team nursing method, which emphasizes task distribution, coordination, and collaboration among nursing team members. This study aimed to identify the relationship between the implementation of the team nursing method and nurses' performance efficiency in hospitals. **Method:** This study employed a systematic literature review design with a scoping review approach. The reviewed articles were published between 2021 and 2025 and were obtained from the Google Scholar, ScienceDirect, Cochrane, PubMed, and Springer databases. Article selection was conducted using the PICOS framework, while the quality of the articles was assessed using the JBI Critical Appraisal Tools. **Result:** The results of the literature review indicate that the implementation of the team nursing method contributes positively to improving nurses' performance efficiency through effective communication, good coordination, and strong support from hospital management. **Conclusion:** The team nursing method can be recommended as a nursing management strategy to enhance nurses' productivity and the quality of hospital services.

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Introduction

Hospitals are complex health care institutions that provide comprehensive services, including outpatient care, inpatient care, and emergency services. The

quality of hospital services is closely linked to the performance of health care professionals, particularly nurses, who play a central role in delivering continuous patient care. In Indonesia, hospital service quality is regulated through national accreditation standards, which require hospitals to continuously evaluate and improve the quality and efficiency of their services (Kemenkes RI, 2021).

One important aspect of nursing management is the method used in delivering nursing care. Several nursing care delivery methods have been identified, including functional, case, team, modular, and primary nursing methods (Indrawati & Erlena, 2023). Among these approaches, the team nursing method emphasizes collaboration, coordination, and shared responsibility among nurses under the leadership of a professional nurse. This method allows nurses with different competencies and educational backgrounds to work together in providing comprehensive and continuous care to patients (Beckett et al., 2021; Mohlisin et al., 2021).

Nurse performance reflects the ability of nurses to carry out their duties in accordance with their roles and responsibilities within the organization. Efficient nurse performance is essential, as it directly affects productivity, quality of care, and patient satisfaction. Conversely, low efficiency in nurse performance can reduce service quality and negatively impact patient outcomes. Effective nursing management, including the appropriate application of nursing care delivery methods, is therefore crucial in improving nurse performance and ensuring high-quality care (Muryani, 2019; Yulianto et al., 2022).

Previous studies have shown that the team nursing method contributes positively to nurse performance and work efficiency. The implementation of team nursing facilitates better communication, coordination, and mutual support among team members, resulting in more organized and efficient care delivery (Rusmianingsih et al., 2022). In addition, clear task distribution and professional supervision within the team nursing method have been shown to improve nurses' job satisfaction, motivation, and confidence, which ultimately enhance the quality and safety of patient care (Mendrofa & Hasibuan, 2021).

Several empirical studies have reported a significant relationship between the implementation of the team nursing method and nurse performance efficiency in hospital settings (Putriyani, 2017; Yusnilawati et al., 2019). However, findings across studies vary, and the factors influencing nurse performance efficiency within the team nursing framework have not been comprehensively synthesized. Therefore, this study aims to conduct a systematic literature review to identify factors that influence the efficiency of nurse performance through the implementation of the team nursing method in hospital settings.

Objective

The general objective of this study is to examine the relationship between the implementation of the team nursing method and the efficiency of nurse performance in hospital settings. Specifically, this study aims to describe the application of the team nursing method in nursing services, to identify the level of efficiency of nurse performance in carrying out nursing duties, and to analyze the factors that influence the implementation of the team nursing method in improving nurse performance efficiency in hospitals.

Method

This study employed a systematic literature review (SLR) design to identify, analyze, and synthesize relevant evidence related to the implementation of the team nursing method and nurse performance efficiency in hospital settings. A systematic literature review is a structured research approach that aims to collect and critically evaluate previous studies to address specific and relevant research questions (Momen et al., 2020).

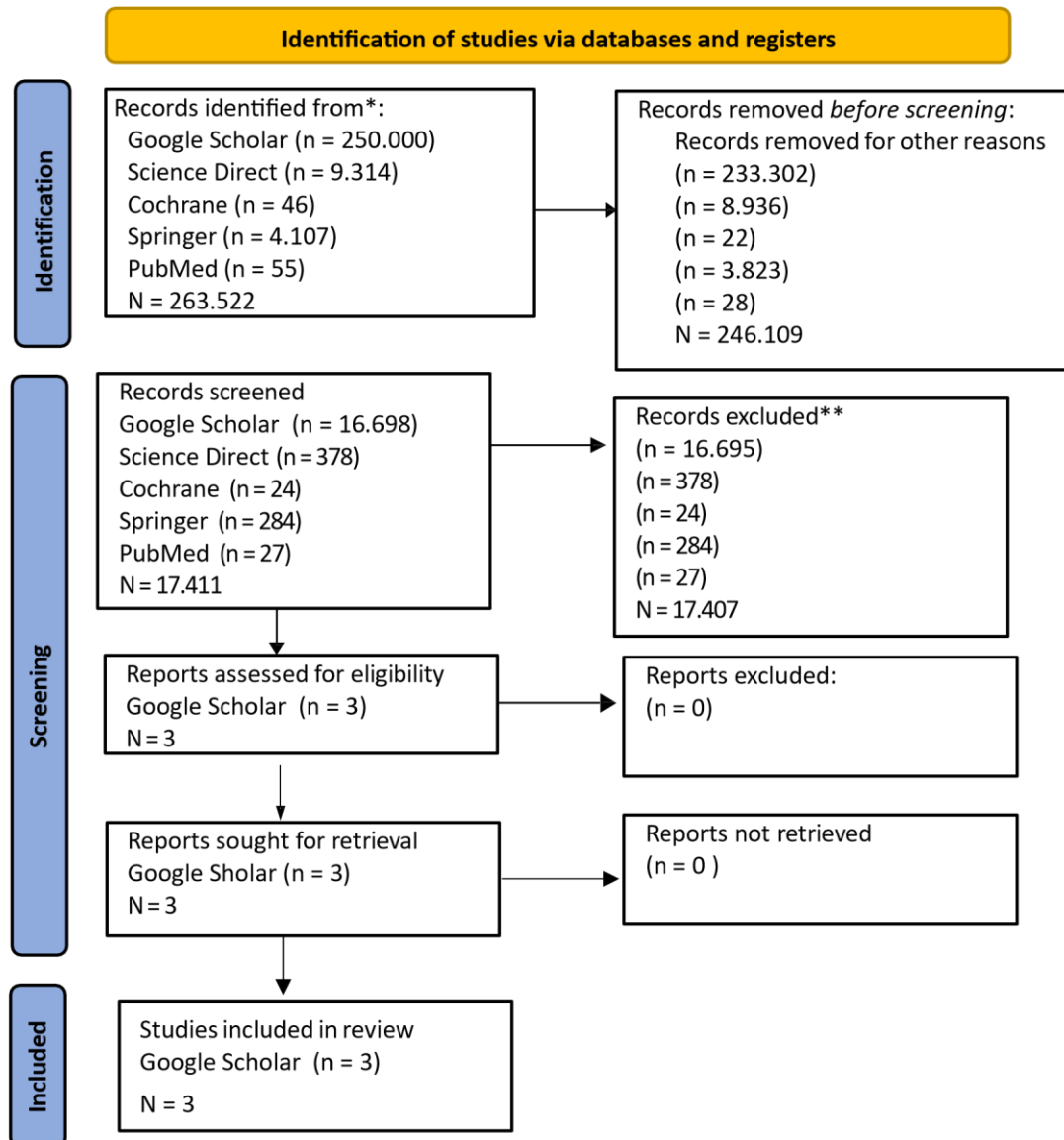
The eligibility criteria were determined using the PICOS framework. The population included nurses working in inpatient units that implemented the team nursing care method in hospitals. The intervention focused on the application of the team nursing method and nurse performance efficiency, while no comparison intervention was applied. The outcomes of interest were factors influencing nurse performance efficiency through the implementation of the team nursing method. Eligible study designs included cross-sectional, experimental, and quasi-experimental studies. Inclusion criteria consisted of full-text articles published between 2021 and 2025, written in English or Indonesian, and freely accessible. Articles published before 2021, non-full-text publications, paid articles, and studies conducted in settings not applying the team nursing method were excluded.

Secondary data were obtained from national and international journal databases, including Google Scholar, ScienceDirect, Cochrane, Springer, and PubMed. The literature search was conducted using predefined keywords and Boolean operators such as “nurse performance efficiency,” “team nursing method,” and “hospital,” adjusted to each database. The search results were screened based on titles and abstracts, followed by full-text assessment according to the eligibility criteria.

The data collection process followed several systematic stages, including planning, data collection, data extraction, and data synthesis. Relevant data extracted from each selected study included author names, year of publication, study title, research design, population or participants, and key findings. Data synthesis was conducted using a narrative approach, whereby extracted findings were grouped and summarized to provide a comprehensive interpretation of the evidence.

Risk of bias was assessed using the JBI Critical Appraisal tools appropriate to each study design. Bias assessment considered aspects such as theoretical relevance, research design suitability, sampling methods, variable measurement, instrument validity and reliability, and data analysis procedures (Nursalam, 2020). Studies were categorized as having low, moderate, or high risk of bias based on appraisal scores, and studies with a high risk of bias were excluded from the final analysis. This appraisal process ensured the methodological quality and credibility of the included studies (Barbara, 2020; Barker et al., 2023).

Results



Based on the initial search conducted across multiple scientific databases, including Google Scholar, ScienceDirect, Cochrane, Springer, and PubMed, a total of 263,522 records were identified. After removing duplicates and articles that did not meet the predefined criteria—such as publication year (2021–2025), study design relevance, language (English and Indonesian), and free full-text availability—17,411 articles remained for screening. Title and abstract screening resulted in three articles deemed relevant to the research topic and eligible for full-text review. Following full-text assessment, three studies met all inclusion criteria and were included in the final systematic review. The study selection process followed the PRISMA flow diagram.

The methodological quality of the included studies was assessed using the JBI Critical Appraisal tools. All three articles achieved appraisal scores above 70%, indicating low risk of bias and sufficient methodological quality for inclusion. Data extracted from the selected studies included author and year, study title, objectives, population, intervention, comparison, and outcomes, which were subsequently synthesized narratively.

TABLE 1 Article Quality Assessment with JBI Critical Appraisal for Quasiexperimental

Authors (Years)	1	2	3	4	5	6	7	8	9	Score
Zhong et al. (2022)	√	√		√	√	√	√	√	√	$(8/9) \times 100\% = 88.8\%$

TABLE 2 Article Quality Assessment with JBI Critical Appraisal for Cross-sectional

Authors (Years)	1	2	3	4	5	6	7	8	Score
Alfika et al. (2024)	√	√	√	√		√	√	√	$(7/8) \times 100\% = 87.5\%$
Costello et al. (2021)	√	√	√			√	√		$(6/8) \times 100\% = 75\%$

TABLE 3 Journal Articles

No.	Authors	Title	Population	Intervension	Comparison	Outcome
1.	Zhong et al. (2022)	Effects of a fixed nurse team in the orthopaedic surgery operating room on work efficiency and patient outcomes: a propensity score-matched historically controlled study	The population in this study was nurses working in healthcare facilities during the COVID-19 pandemic. Participants included nurses from various service units, such as inpatient wards, emergency units, and intensive care units, who were directly involved in the care of COVID-19 patients.	The intervention in this study was not a clinical intervention, but rather a qualitative research approach through in-depth interviews and/or narrative data collection. Researchers used this method to explore nurses' direct experiences regarding changes in work practices, the use of personal protective equipment (PPE), emotional burdens, and professional	-	The results of the study show that nurses face increased workloads, psychological stress, fatigue, and concerns about their own safety and that of their families. On the other hand, this study also found an increase in team solidarity, a sense of professional responsibility, and a need for organizational support and stronger policies to protect and empower nurses during health crises.

No.	Authors	Title	Population	Intervension	Comparison	Outcome
				adaptatio ns made during the COVID-19 pandemic.		
2.	Alfika et al. (2024)	Relationship between team method implementation and nurse performance	The population in this study consisted of nurses working in the inpatient ward of Dr. Moewardi General Hospital in Surakarta, with a sample size of 97 urses.	The interventi on in this study was not a clinical intervention, but rather the application of the team nursing method as a nursing care delivery system implemented in nursing services in the inpatient ward.	This study compares the applicatio n of team nursing methods in optimal and non-optimal categories on nurse performance, Without explicitly using a control group.	The results showed a Significant relationship between the implementat ion of team nursing methods and nurse performance ($p = 0.001$). The optimal implementat ion of team nursing methods is supported by clear division of tasks, effective coordination and communication among team members, good team leader leadership, and structured collaboration, thereby contributing to improved nurse performance in providing nursing care
3.	Costello et al. (2021)	"Examining the average scores of nursing teamwork subscales in an acute private medical ward"	The population included registered nurses, advanced practice registered nurses, clinical nurses, and nursing managers,	The interventi on in this study was not a clinical interventi on, but rather the use of the Nursing Teamwork Survey (NTS) as an instrument to	-	The results showed that nurses generally had a positive perception of teamwork, with an overall average score of 2.97 on a scale of 0-4. The shared mental model

No.	Authors	Title	Population	Intervension	Comparison	Outcome
			with a total population of 50 people. Of these, 45 nurses voluntarily participated in completing the research questionnaire.	Measure perception s of nursing teamwork. This survey assesses five main subscales of teamwork, namely trust, team orientation, backup, shared mental model, and team leadership , using a Likert scale to describe the frequency of teamwork behaviors perceived by nurses.		subscale had the highest score, while trust had the lowest score. These findings indicate the need for strategies to strengthen teamwork and leadership in order to improve communication, staff satisfaction, and the quality of nursing care and patient outcomes.

Discussion

The findings from the three included studies consistently indicate a significant relationship between the implementation of the team nursing method and nurse performance efficiency in hospital settings. Costello et al. (2021) demonstrated that effective nursing teamwork, as measured by the Nursing Teamwork Survey, contributed to improved communication, coordination, and job satisfaction. Although the overall teamwork score suggested room for improvement, a strong shared mental model among nurses supported efficient task execution. Zhong et al. (2022) provided quantitative evidence that the implementation of a fixed nurse team in orthopedic operating rooms reduced surgical site infections and shortened operating room turnover time, indicating increased work efficiency due to team consistency and procedural familiarity. Similarly, Pratiwi and Supratman (2024) found a significant association ($p = 0.001$) between optimal implementation of the team nursing method and higher nurse performance levels in inpatient wards. These findings collectively suggest that the team nursing method enhances both clinical and non-clinical aspects of nurse performance efficiency.

The implementation of the team nursing method varied across the included studies. Costello et al. (2021) reported that while teamwork orientation and shared mental models were strong in an acute medical ward, low levels of trust among nurses posed challenges to open communication. In contrast, Zhong et al. (2022) described a highly structured fixed nurse team model in orthopedic operating rooms, where consistent team composition over at least one year improved continuity of care, role clarity, and overall efficiency. Meanwhile, Pratiwi and Supratman (2024) found that team nursing implementation in inpatient wards was not yet optimal, with more than

half of nurses demonstrating suboptimal application of the method, leading to lower performance outcomes. These findings indicate that successful implementation of the team nursing method depends not only on organizational structure but also on workplace culture and managerial support.

Nurse performance efficiency was reflected in both objective and subjective indicators across the reviewed studies. Costello et al. (2021) associated effective teamwork with reduced missed nursing care and improved job satisfaction. Zhong et al. (2022) highlighted increased efficiency through reduced operating room turnover time and improved collaboration with surgeons, attributed to stable and well-trained nurse teams. Additionally, Pratiwi and Supratman (2024) showed that nurses who optimally applied the team nursing method demonstrated higher efficiency in completing nursing tasks compared to those with poor implementation. These results emphasize that team-based nursing care can reduce individual workload, enhance coordination, and improve the overall efficiency of nursing services.

Several factors influencing the successful implementation of the team nursing method were identified. Costello et al. (2021) emphasized the importance of workplace culture, particularly trust and open communication among nurses. Zhong et al. (2022) highlighted team continuity, structured training, and clear leadership as key factors in achieving efficiency. Pratiwi and Supratman (2024) identified individual factors such as motivation, education level, and work experience, as well as organizational factors including leadership support, task distribution, and management commitment. These findings suggest that the effectiveness of the team nursing method is shaped by a combination of individual, team, and organizational factors.

The implementation of the team nursing method has important implications for nursing practice. This approach not only improves nurse performance efficiency but also contributes to enhanced quality of care and patient safety. Hospitals should establish internal policies that support fixed nursing teams, particularly in inpatient and procedural units. Regular training programs focusing on team communication, role clarity, and clinical leadership should be integrated into nursing professional development. Additionally, nursing education institutions should incorporate teamwork-based care models into their curricula to prepare future nurses for collaborative practice environments.

Conclusion

The findings indicate that nurse performance efficiency in hospitals is influenced by the implementation of the team nursing method supported by interrelated factors. Individual factors, including competence, motivation, education, and work experience, affect nurses' ability to perform efficiently. Team-related factors such as effective communication, coordination, shared mental models, trust, and team continuity enhance workflow and reduce errors. Organizational support, leadership, policies, and continuous training are essential to ensure effective implementation. Overall, team nursing improves nurse performance efficiency and contributes to higher quality nursing care. Future researchers are encouraged to conduct further studies using more diverse research designs, including quantitative and qualitative approaches, to explore additional factors influencing nurse performance efficiency and to evaluate the effectiveness of the team nursing method across various hospital care settings.

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