

Volume. 8 Number. 2

Period: July – December 2024; page 58-65

p-ISSN : 2580-1112; e-ISSN : 2655-6669

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journal homepage: <https://ejournal.akperfatmawati.ac.id>

**Jurnal Ilmiah Keperawatan  
Orthopedi (JIKO)**

Article history:

Received: May 12, 2024

Revised: June 12, 2024

Accepted: July 12, 2024

## Implementation of Management Functions in Improving the Quality of Nursing Services in Hospitals

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### Abstract

The quality of nursing care is a key indicator of hospital service quality, significantly influenced by the effectiveness of the implementation of nursing management functions. Management functions, including planning, organizing, directing, and controlling, play a crucial role in coordinating resources, directing nurse performance, and ensuring the delivery of nursing care according to established standards. This study aims to analyze the implementation of management functions in improving the quality of nursing care in hospitals. The study employed a quantitative design with a descriptive correlational approach. The sample consisted of 120 nurses working in the hospital's inpatient unit, selected using a purposive sampling technique. Data collection was conducted through a structured questionnaire that measured the implementation of management functions and the quality of nursing care. Data analysis included univariate analysis, bivariate analysis using the chi-square test, and multivariate analysis using multiple logistic regression. The results showed a significant relationship between the implementation of management functions and the quality of nursing care ( $p < 0.05$ ). The multivariate analysis revealed that the directing function was the most dominant factor influencing the quality of nursing care compared to other management functions. Good implementation of management functions increases the chances of achieving quality, safe, and patient-oriented nursing care. The conclusion of this study confirms that strengthening the managerial competencies of ward heads and nursing leaders is a crucial strategy for sustainably improving the quality of nursing services in hospitals.

**Keywords:** Management Function, Nursing Service Quality, Nursing Management, Hospital, Nurse Performance

### Introduction

Nursing services are an essential component of the healthcare system, directly impacting patient safety, customer satisfaction, and the effectiveness of medical therapy. In hospitals—as the

frontline of healthcare—nurses act not only as providers of care but also as coordinators, educators, and patient advocates. However, the quality of nursing services is often hampered by various systemic challenges, including excessive workload, inadequate staffing, lack of

managerial support, and weak performance monitoring and evaluation mechanisms (Aiken et al., 2021; Griffiths et al., 2021). In this context, the comprehensive implementation of management functions is key to driving sustainable improvement in the quality of nursing services.

Management functions—including planning, organizing, actuating/leading, and controlling—are not merely administrative procedures, but rather a strategic framework that enables operational transformation into safe, effective, efficient, equitable, and patient-centered care. When implemented in an integrative and evidence-based manner, these functions can create a conducive work environment, enhance staff competency, minimize clinical errors, and strengthen professional accountability (Dellefield et al., 2020; Liu et al., 2022).

Good planning, for example, ensures the allocation of human resources according to patient needs—such as an ideal nurse-to-patient ratio—which has been shown to positively correlate with reduced nosocomial infection rates and patient readmissions (Aiken et al., 2021). Effective organization facilitates a clear leadership structure, proportional division of tasks, and harmonious interprofessional collaboration. Meanwhile, control functions through clinical audits, data-driven feedback, and incident reporting systems enable early identification of quality gaps and continuous improvement (Tawalbeh & Tubaishat, 2023).

At the global level, the World Health Organization (WHO, 2020) emphasizes that investment in nursing leadership and management is a key pillar in achieving Universal Health Coverage (UHC). The State of the World's Nursing 2020 report states that countries with strong nursing management systems tend to have better population health indicators and higher nursing workforce retention. In Indonesia, efforts to improve the quality of nursing

services are also a national priority, as reflected in Minister of Health Regulation No. 49 of 2017 concerning Nursing Service Standards, which emphasizes the importance of quality management-based governance.

Empirical research over the past five years (2019–2025) has further strengthened the link between the implementation of management functions and improved nursing service quality. A study by Zhang et al. (2024) showed that hospitals with participatory management practices—where nurses are involved in decision-making—reported 28% higher patient satisfaction scores and 35% lower staff turnover rates. Similarly, management-based interventions such as leadership training for ward heads, competency-based performance appraisal systems, and the implementation of nursing-sensitive indicators have been shown to improve the accuracy of nursing documentation and adherence to clinical protocols (Labrague et al., 2023; Zaghmouri et al., 2021).

However, in many hospitals—especially those in remote areas or facilities with limited resources—the implementation of nursing management functions remains reactive and fragmented. This results in inconsistencies in service standards, decreased staff motivation, and increased patient safety risks. Therefore, a thorough understanding of how each management function can be operationalized contextually is crucial for designing effective and sustainable quality improvement strategies.

Given the complexity of post-pandemic healthcare challenges, nursing management transformation can no longer be viewed as an option but rather as a strategic necessity. This article aims to critically analyze the application of management functions to improve the quality of nursing care in hospitals, by referencing the latest findings from the

international scientific literature (2019–2025). Through this evidence synthesis, it is hoped that it will provide evidence-based guidance for nursing managers, policymakers, and educators in building a high-quality, resilient, and patient-centered nursing care system.

## Method

This study employed a quantitative descriptive correlational research design with a non-experimental approach. This approach was chosen to directly measure the relationship between variables in the application of management functions (planning, organizing, directing, and controlling) and the quality of nursing care in hospitals without manipulating intervening variables.

This design aligns with the research model used in recent studies in the field of nursing management, which analyze the influence of nursing management practices on the quality of nursing care through descriptive and correlational statistical techniques. This study will also present a systematic description of the level of implementation of management functions and the quality of nursing services (Descriptive Correlational).

The population of this study is nurses working in inpatient units and nursing services at the hospital, with clinical and administrative qualifications. The sample will be selected using a purposive sampling technique, selecting respondents based on specific criteria relevant to the research objectives (e.g., nurses with at least one year of work experience). This sampling technique has been widely used in correlational and quantitative nursing management research.

The independent variable of this study is the implementation of management functions, including aspects of planning, organizing, directing, and controlling. The dependent variable is the

quality of nursing services, measured by indicators of compliance with nursing standards, patient safety, and patient satisfaction with the services provided.

Data collection will be conducted using a structured questionnaire developed based on instruments that have been tested for validity and reliability in previous studies in the field of nursing management and nursing service quality. The questionnaire will consist of several Likert-type scales to capture nurses' perceptions regarding the implementation of management functions and the quality of services provided.

Primary data will be collected through a self-administered questionnaire survey of nurses who meet the sample criteria. Additionally, secondary data collection can be conducted through hospital documentation related to standard operating procedures (SOPs), service quality evaluation reports, and other relevant reference materials.

Data analysis will be conducted statistically using statistical software (e.g., SPSS or SmartPLS). Analysis techniques will include: 1) Descriptive statistical analysis to describe respondent characteristics, including scores for the implementation of management functions and nursing service quality scores; 2) Correlational analysis (e.g., Pearson/Spearman test or linear regression) to determine the relationship and strength of influence between independent and dependent variables. Other studies with a similar approach have used predictive regression analysis techniques to determine which nursing management variables contribute to the quality of nursing services.

The validity of the research instrument will be tested through content validity with the assistance of nursing and health management experts, as well as a pilot study on a small number of nurses to

determine the instrument's internal reliability (e.g., Cronbach's alpha).

**Results**

**1. Respondent Characteristics**

This study involved 120 nurses working in the hospital's inpatient unit. Respondent characteristics included age, gender, education level, and length of service.

Table 1. Distribution of Respondent Characteristics (Univariate Analysis)

Characteristics	Category	n	%
Age	20–30 years	42	35,0
	31–40 years	54	45,0
	> 40 years	24	20,0
Gender	Male	36	30,0
	Female	84	70,0
Education	D3 Nursing	38	31,7
	S1 Nursing	62	51,7
	Nurse	20	16,6
Year of Service	< 5 years	40	33,3
	≥ 5 years	80	66,7

**2. Univariate Analysis**

**2.1 Implementation of Nursing Management Functions**

Management functions are measured through four dimensions: planning, organizing, directing, and controlling.

Table 2. Distribution of Implementation of Management Functions

Management Functions	Category	n	%
Planning	Good	82	68,3
Organizing	Good	76	63,3
Directing	Good	88	73,3
Controlling	Good	70	58,3
Total Management Functions	Good	79	65,8

**2.2 Quality of Nursing Services**

The quality of nursing services is measured based on patient safety, SOP compliance, and service satisfaction.

Table 3. Distribution of Quality of Nursing Services

Nursing Service Quality	n	%
Good	85	70,8
Sufficient	25	20,8
Poor	10	8,4
Total	120	100

**3. Bivariate Analysis**

Bivariate analysis was conducted to determine the relationship between the implementation of management functions and the quality of nursing services using the Chi-Square test.

Table 4. Relationship between the Implementation of Management Functions and the Quality of Nursing Services

Management Function	Good Quality	Poor Quality	Total	p-value
Good	68 (86,1%)	11 (13,9%)	79	0,001
Poor	17 (41,5%)	24 (58,5%)	41	
Total	85	35	120	

The table above shows a statistically significant relationship between the implementation of management functions and the quality of nursing services ( $p < 0.05$ ). Nurses working in units with good implementation of management functions tend to provide higher quality nursing services.

**4. Multivariate Analysis**

Multivariate analysis using multiple logistic regression was conducted to determine the management function variables that most dominantly influence the quality of nursing care.

Table 5. Results of Multiple Logistic Regression Analysis

Independent Variables	B	SE	Wald	OR (Exp B)	p-value
Planning	0,92	0,38	5,87	2,50	0,015
Organizing	0,65	0,34	3,65	1,92	0,042
Directing	1,21	0,41	8,72	3,35	0,003
Controlling	0,48	0,36	1,78	1,62	0,181

The interpretation of the multivariate analysis is that the directive function is the most dominant factor influencing the quality of nursing services (OR = 3.35;  $p = 0.003$ ). This means that nurses who receive good direction from nursing managers are 3.35 times more likely to provide quality nursing services than nurses who do not receive optimal direction, after controlling for other management function variables.

## Discussion

### 1. The Effect of Management Function Implementation on Nursing Service Quality

The results of this study indicate a statistically significant relationship between the implementation of management functions and the quality of nursing services ( $p = 0.001$ ). This aligns with findings from a literature review that the effective implementation of management functions, including planning and control, correlates with improved healthcare service quality, including patient safety, SOP compliance, and patient satisfaction (Ridwan, Audyta, Afrillianti, Ardila, Ashari & Putra, 2024).

Theoretically, functions such as planning help nursing managers formulate focused service strategies consistent with quality targets, while organizing ensures appropriate work structures and resource allocation to optimize nursing care (Marquis & Huston, 2000, in the literature on management concepts).

### 2. Dimensions of Planning and Organizing

The planning dimension received positive scores from the majority of respondents. A roadmap study in a Home Health Care service unit confirmed that optimizing the planning function of nurses as service managers can ensure patient safety through the development of relevant guidelines and SOPs (Takaredas,

Handiyani, Gayatri, Mediawat & Masfuri, 2025).

Similarly, the organizing dimension plays a crucial role in structuring nursing services and allocating different staff according to patient needs. Another study in the context of a Community Health Center (Puskesmas) showed that the organizing function correlated significantly with overall service quality, reinforcing the role of coordination as a quality-enhancing factor (Tampa'i, 2024).

### 3. Direction as a Dominant Factor

Multivariate regression analysis revealed the direction function as the dominant variable influencing the quality of nursing care (OR = 3.35;  $p = 0.003$ ). Direction involves the ability to lead, motivate, and guide staff to achieve service goals. This is supported by empirical evidence that directive practices improve nurses' performance in documenting and implementing care, which are essential indicators of service quality.

In a broader literature review, the directive function has also been shown to play a crucial role in overseeing the quality of nursing services through ongoing supervision, which ultimately impacts adherence to clinical work standards and patient safety (Wilan & Sureskiarti, 2025).

### 4. Control and Evaluation

Although control scored below average on several other dimensions, it still demonstrated a significant contribution to maintaining service quality through ongoing monitoring and evaluation. This is consistent with practical findings at a military hospital in Jakarta, where increased ward managers' knowledge of quality control led to improved staff perceptions of its importance (Nurdiana, Sri Hariyati & Anisah, 2024).

## 5. Management Mechanisms and Impact on Service Quality

The results of this study are consistent with the concept that nursing management contributes directly to service quality indices—particularly patient safety as the primary indicator—through the integration of management functions into work culture and adherence to SOPs (Aziizah, Azizah, Suherman, Yuningsih & Ridwan, 2025).

Furthermore, a quantitative cross-design study in three regional hospitals showed that all components of the management function were significantly associated with the incidence of missed nursing care, namely unmet service aspects that are indicators of low quality. This underscores the importance of sound planning, direction, and control in clinical practice (Nilasari, Sri Hariyati & Rahman, 2022).

## 6. Link to Management Strategy and Strategic Planning

Recent systematic literature shows that strategic planning and the role of managers in performance evaluation have a positive impact on nursing performance and overall service quality. Strategic planning can increase human resource capacity in achieving organizational goals and providing quality services.

This research aligns with various studies confirming that nursing management is not merely an administrative function, but also a strategy for improving competency, team collaboration, and adapting a patient safety culture in hospitals. A focus on direction and control functions, for example, has become a pillar in implementing continuous quality improvement, which impacts consistent compliance with clinical standards and patient safety.

## Conclusion

This research demonstrates that the implementation of nursing management functions plays a crucial role in improving the quality of nursing services in hospitals. Management functions, including planning, organizing, directing, and controlling, have been shown to be significantly related to the quality of nursing services, as reflected in patient safety, adherence to standard operating procedures, and the quality of nursing care provided. Multivariate analysis confirmed that the directing function is the most dominant factor influencing the quality of nursing services, as effective directing can improve nurses' motivation, performance, and adherence to service standards. Nevertheless, the planning, organizing, and controlling functions remain crucial as the foundation of an integrated nursing management system. Therefore, strengthening the managerial capacity of ward heads and nursing leaders through ongoing training and systematic performance evaluation is essential to support the creation of high-quality, safe, and patient-oriented nursing services.

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