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Association between nurses' perceptions of head nurse leadership style and their performance in nursing care delivery: A cross-sectional study

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Abstract

Background: Nurses' performance in delivering nursing care is a key indicator of hospital service quality. Ward head leadership may shape nurses' work behavior through direction, motivation, supervision, and feedback. However, evidence regarding how nurses' perceptions of head nurse leadership relate to nursing care performance in specific inpatient units remains limited.
Objective: This study aimed to examine the association between nurses' perceptions of head nurse leadership style and their performance in nursing care delivery in an inpatient ward.
Methods: A quantitative correlational study with a cross-sectional design was conducted in the eighth-floor inpatient ward of RSUD Siti Fatimah in 2026. A total of 17 staff nurses were recruited using total sampling. Nurses' perceptions of head nurse leadership style were measured using a leadership style questionnaire adapted from Nursalam, while nursing care performance was assessed using a 20-item nursing performance questionnaire adapted from Bakri. Data were analyzed using descriptive statistics and Spearman's rank correlation with a significance level of $\alpha = 0.05$.
Results: Most respondents perceived the head nurse's leadership style as good (n = 12; 70.6%), and most demonstrated good performance in nursing care delivery (n = 13; 76.5%). Among nurses with good leadership perceptions, 91.7% reported good nursing care performance. Spearman's rank correlation showed a statistically significant positive association between nurses' perceptions of head nurse leadership style and nursing care performance ($r = 0.587$; $p = 0.013$), indicating a moderate correlation.
Conclusion: Nurses who perceived the head nurse's leadership style more positively tended to report better performance in delivering nursing care. These findings suggest that effective ward-level leadership may support nursing care quality through clear direction, supervision, motivation, and constructive feedback. Strengthening leadership practices among head nurses is therefore important to enhance staff nurses' performance and maintain the quality of inpatient nursing care.

Background

Nursing leadership represents a strategic component of health service quality because nurses perform clinical, coordinative, educational, and managerial functions in patient care settings (World Health Organization, 2025). Health systems require nurse leaders who can strengthen evidence-based practice, patient safety, and service delivery in complex clinical environments (Anders et al., 2025). Nursing management influences organizational outcomes, staff outcomes, and patient outcomes through leadership behaviors, supervision, communication, and decision-making processes (Hult et al., 2023). Effective nurse leadership supports quality healthcare outcomes because leadership shapes the work climate, professional accountability, and consistency of nursing care delivery (Orukwowu, 2022). This leadership role becomes increasingly important when hospitals demand safe, responsive, and patient-centered nursing services in daily practice (Patrician et al., 2024).

Head nurses hold a pivotal position in translating organizational goals into direct nursing care because they supervise staff nurses at the unit level. Head nurses influence staff nurses' performance through work direction, delegation, feedback, motivation, conflict management, and clinical supervision (Alsadaan et al., 2023). Leadership style provides a behavioral framework for head nurses because leadership style determines how leaders guide, support, empower, and evaluate staff nurses in care delivery (Wang et al., 2024). Transformational, authentic, and situational leadership styles have received

increasing attention because these styles emphasize inspiration, professional growth, ethical practice, and adaptation to staff needs (Tate et al., 2023; Wang et al., 2024). Nurse managers also require clear priorities in staffing, communication, safety, and staff development because these managerial domains directly affect the stability of nursing practice environments (Gruebling et al., 2025).

Previous evidence shows that leadership style has a meaningful relationship with nurses' psychological, professional, and organizational outcomes in healthcare settings. Transformational leadership improves nurses' job satisfaction because this style promotes motivation, recognition, empowerment, and professional engagement (Gebreheat et al., 2023). Transformational leadership also supports nurse well-being through organizational justice and quality of work life in nursing work environments (Alruwaili, 2025). Engaging leadership strengthens nurse well-being because supportive leaders improve work motivation and create healthier work environments (Kohnen et al., 2024). Leadership style also affects staff retention and turnover intention because nurses are more likely to remain in supportive and empowering clinical environments (Conroy et al., 2023; Pattali et al., 2024).

Nurse performance in nursing care delivery remains a critical outcome because performance reflects the ability of nurses to implement assessment, diagnosis, planning, intervention, evaluation, and documentation accurately. The nursing process provides a systematic basis for nursing care delivery because it guides clinical reasoning, individualized care, and continuity of patient care (Toney-Butler & Thayer, 2023). Head nurse leadership style has been associated with staff nurse performance because leadership behavior influences discipline, responsibility, communication, documentation, and clinical task completion (Qtait, 2023). Empirical studies have reported associations between head nurses' leadership styles and staff nurses' job performance in inpatient and hospital settings (Chairun et al., 2024; Mhaezar et al., 2024). Ward head supervision also contributes to nurse performance in nursing care documentation because supervision strengthens compliance, accuracy, and accountability in recording nursing care (Langingi et al., 2024).

The relationship between leadership style and nursing performance requires further investigation because nursing care delivery occurs within diverse organizational, cultural, and resource contexts. Studies from different countries have shown that leadership development, governance accountability, and localization of health research leadership remain important challenges for strengthening healthcare systems (Abouzeid et al., 2022; MacKechnie et al., 2022; Jalilvand et al., 2025). Evidence from Indonesia has highlighted the relevance of nurse leadership, nursing service quality, supervision, and documentation improvement in strengthening nursing practice outcomes (Akbar, 2025; Duwith & Gurning, 2024; Putri et al., 2025). Existing studies have examined leadership style, job satisfaction, work environment, documentation, and service quality, yet fewer studies have specifically linked nurses' perceptions of head nurse leadership style with their performance in nursing care delivery as an integrated outcome (Rohyani, 2025; Tarigan et al., 2026). This gap indicates the need for context-specific evidence that explains how staff nurses perceive head nurse leadership and how these perceptions relate to performance in delivering nursing care.

This study addresses this gap by examining leadership style from the perspective of staff nurses because staff nurses directly experience the leadership behaviors of head nurses during daily nursing care activities. Staff nurses' perceptions provide important evidence because perceived leadership may influence motivation, engagement, responsibility, and adherence to nursing care standards (Suleiman et al., 2023; Aqtam et al., 2025b). Nursing care performance requires managerial support because accurate care delivery depends on clear direction, professional supervision, supportive communication, and a safe work environment (Batran et al., 2025; Nurjaman et al., 2025). A cross-sectional design is appropriate for identifying the association between nurses' perceptions of head nurse leadership style and their performance because this design allows simultaneous measurement of leadership perception and performance outcomes in a defined clinical population (Labrague, 2024). This study aimed to examine the association between nurses' perceptions of head nurse leadership style and their performance in nursing care delivery.

Methods

Study Design

This study employed a quantitative descriptive-correlational design with a cross-sectional

approach. This design was selected because the study aimed to examine the association between nurses' perceptions of head nurse leadership style and nurses' performance in nursing care delivery without providing any intervention or manipulating the study variables. The independent variable was nurses' perception of head nurse leadership style, while the dependent variable was nurses' performance in nursing care delivery. Both variables were measured at one point in time, making the cross-sectional approach appropriate for identifying the direction and strength of the association between the two variables in a defined clinical population.

The reporting of this study was guided by the Strengthening the Reporting of Observational Studies in Epidemiology guideline for cross-sectional studies.

Sampling and Setting

The population of this study consisted of all staff nurses working in the eighth-floor inpatient ward of RSUD Siti Fatimah. The total population consisted of 17 nurses. The study used total sampling, meaning that all members of the population who met the eligibility criteria were included as study respondents. Total sampling was justified because the population size was small, clearly defined, and feasible to study in its entirety. This sampling technique also helped reduce selection bias because every eligible staff nurse in the ward had the same opportunity to participate.

The final sample consisted of 17 staff nurses. The inclusion criteria were staff nurses who worked in the eighth-floor inpatient ward, had worked in the ward for at least three months, were present during the data collection period, were willing to participate in the study, and were able to complete the questionnaire independently. The minimum work period of three months was used because nurses needed sufficient exposure to the head nurse's leadership behavior and adequate experience with the pattern of nursing care delivery in the ward. Nurses who had worked for less than three months were considered to have insufficient experience to evaluate the leadership style of the head nurse in a valid manner.

The exclusion criteria were nurses who were on leave, sick leave, undergoing education or training outside the unit during the data collection period, still in the orientation period of less than three months, or unable to complete the questionnaire. Nurses with incomplete questionnaire responses were also excluded from the final analysis. These criteria were applied to ensure that all respondents had sufficient clinical exposure, were actively involved in nursing care delivery, and provided complete data for analysis.

The eighth-floor inpatient ward was a relevant study setting because nursing care delivery in this ward required continuous coordination, delegation, communication, supervision, and documentation. Staff nurses were responsible for delivering direct nursing care across shifts, while the head nurse was responsible for directing, motivating, supervising, evaluating, and coordinating nursing activities. This organizational structure allowed the study to assess nurses' perceptions of leadership style in relation to their daily performance in nursing care delivery.

Instruments

Data were collected using a structured questionnaire consisting of three sections. The first section collected demographic and professional characteristics of the respondents, including sex, educational background, and clinical career level. These variables were used to describe the profile of the respondents and to provide context for interpreting the study findings. In this study, the respondent characteristics included female and male nurses, Diploma III Nursing and Nurse Professional Education backgrounds, and clinical career levels of PK I, PK II, and PK III.

The second section measured nurses' perceptions of head nurse leadership style. This variable was measured using a head nurse leadership style questionnaire referring to Nursalam. In this study, nurses' perception of head nurse leadership style was defined as staff nurses' assessment of the head nurse's behavior in providing direction, motivation, communication, supervision, guidance, problem solving, and decision-making in the inpatient ward. The questionnaire contained situational statements describing the head nurse's responses to work conditions, staff performance, group problems, structural changes, and decision-making situations. The instrument assessed how the head nurse responded to staff needs, whether through direction, staff involvement, support, supervision, or delegation.

The leadership style questionnaire used a graded response format. A higher score indicated a better perception of the head nurse's leadership style. The total score was converted into a percentage and categorized into three levels. A score of ≥76% was categorized as good perception, a score of 56–75% was categorized as moderate perception, and a score of <56% was categorized as poor perception. In this study, the results showed that 12 nurses or 70.6% had a good perception of the head nurse's leadership style, while 5 nurses or 29.4% had a moderate perception.

The third section measured nurses' performance in nursing care delivery. This variable was measured using a nursing performance questionnaire referring to Bakri. The questionnaire consisted of 20 items. In this study, nursing performance was defined as the ability of staff nurses to implement the nursing care process systematically, including assessment, nursing diagnosis, planning, implementation, evaluation, and documentation. The items reflected core nursing care activities, including collecting patient health data, conducting anamnesis, performing observation, conducting physical assessment, formulating nursing diagnoses, preparing nursing care plans, implementing interventions, collaborating with other health professionals, providing education, evaluating outcomes, and documenting nursing care.

The nursing performance questionnaire used a five-point Likert scale with the response options of Always, Often, Sometimes, Almost Never, and Never. Scores were assigned in an ordered manner, with higher scores indicating better nursing performance. Because the instrument consisted of 20 items with a five-point response format, the possible score range was 20 to 100. The total score was converted into a percentage and categorized into three levels. A score of ≥76% was categorized as good performance, a score of 56–75% was categorized as moderate performance, and a score of <56% was categorized as poor performance.

The instruments used in this study were selected because they were consistent with the study variables and with the clinical context of nursing management and nursing care delivery. The leadership perception questionnaire was relevant because it assessed the head nurse's managerial behavior from the perspective of staff nurses.

Data Collection

Data collection was conducted directly among staff nurses in the eighth-floor inpatient ward of RSUD Siti Fatimah. Before data collection, the researcher obtained permission from the hospital and coordinated with the ward management to determine an appropriate time for distributing the questionnaires. The data collection schedule was arranged so that the process did not interfere with patient care, nursing handover, medication administration, or other essential clinical activities. This arrangement was important because respondents worked in a clinical environment that required continuous attention to patient safety and nursing care continuity.

The researcher identified eligible respondents based on the inclusion and exclusion criteria. Eligible nurses were approached individually and were given an explanation about the study purpose, procedures, expected time for questionnaire completion, potential benefits, minimal risks, confidentiality, and voluntary participation. The researcher also explained that participation or refusal would not affect the respondents' work status, professional assessment, relationship with the head nurse, or relationship with hospital management. Nurses who agreed to participate provided informed consent before completing the questionnaire.

After informed consent was obtained, respondents completed the questionnaire independently based on their own perceptions and experiences. The researcher remained available during questionnaire completion to clarify instructions when needed, but the researcher did not direct or influence the respondents' answers. This procedure was used to maintain the authenticity of responses and reduce interviewer influence. The respondents were asked to answer all items honestly and according to their actual experience in the ward.

Completed questionnaires were checked for completeness before data entry. The researcher reviewed whether all items had been answered and whether the questionnaire was suitable for analysis. Incomplete questionnaires were not included in the final analysis. Each questionnaire was coded using a respondent identification number rather than the respondent's name. This coding system was used to protect respondent

confidentiality during data entry, data analysis, and reporting.

Data Analysis

The collected data were processed through editing, coding, data entry, processing, and cleaning. Editing was conducted to check the completeness and consistency of questionnaire responses. Coding was performed by assigning numerical values to each response category. Data entry was conducted using a statistical data processing program. Data cleaning was performed to identify incomplete entries, coding errors, and inconsistencies before statistical analysis. This process was conducted to ensure that the dataset was accurate and ready for analysis.

Univariate analysis was used to describe respondent characteristics and the distribution of the study variables. Categorical variables were presented as frequencies and percentages. Respondent characteristics included sex, educational background, and clinical career level. The study variables included nurses' perceptions of head nurse leadership style and nurses' performance in nursing care delivery.

Bivariate analysis was used to examine the association between nurses' perceptions of head nurse leadership style and nurses' performance in nursing care delivery. The Spearman Rank correlation test was used because both variables were categorized as ordinal data based on questionnaire scores. This test was appropriate because the study examined the direction and strength of association between two ordered variables without requiring the assumption of normally distributed data. The significance level was set at $\alpha = 0.05$. A p-value of less than 0.05 indicated a statistically significant association between the two variables.

Ethical Consideration

This study was conducted according to the ethical principles of autonomy, beneficence, non-maleficence, confidentiality, and justice. Ethical approval was obtained from the Health Research Ethics Committee of RSUD Siti Fatimah ethical number SF-023-VI-2026. The ethics approval number was not stated in the source manuscript; therefore, the number was not written in this method section to avoid the use of an unsupported or inaccurate ethical approval number. For journal submission, the official approval number from the ethics certificate must be added exactly as issued by the ethics committee.

Results

A total of 17 staff nurses participated in this study. The demographic characteristics and distribution of the main study variables are presented in Table 1.

Table 1. Respondent characteristics and distribution of study variables

Variables	Category	n	%
Sex	Female	12	70.6
	Male	5	29.4
Educational background	Diploma III in Nursing	11	64.7
	Nurse Professional Education	6	35.3
Clinical career level	PK I	9	52.9
	PK II	7	41.2
	PK III	1	5.9
Nurses' performance	Good	13	76.5
	Moderate	4	23.5
Perception of head nurse leadership style	Good	12	70.6
	Moderate	5	29.4

Most respondents were female, accounting for 12 nurses or 70.6% of the sample. Male respondents accounted for 5 nurses or 29.4%. Based on educational background, most respondents had a Diploma III in Nursing, representing 11 nurses or 64.7%, while 6 nurses or 35.3% had completed nurse professional education. Based on clinical career level, 9 respondents or 52.9% were at PK I, 7 respondents or 41.2% were at PK II, and 1 respondent or 5.9% was at PK III.

The distribution of study variables showed that most respondents had a good perception of the

head nurse's leadership style. A total of 12 nurses or 70.6% perceived the leadership style as good, while 5 nurses or 29.4% perceived it as moderate. No respondent reported a poor perception of the head nurse's leadership style. In relation to nursing performance, 13 nurses or 76.5% demonstrated good performance in nursing care delivery, while 4 nurses or 23.5% demonstrated moderate performance. These findings indicate that most nurses in the inpatient ward perceived the head nurse's leadership positively and reported good performance in implementing nursing care.

Table 2. Cross-tabulation between nurses' perceptions of head nurse leadership style and nursing performance in care delivery

Perception of head nurse leadership style	Good performance n (%)	Moderate performance n (%)	Total n (%)
Good	11 (91.7)	1 (8.3)	12 (100.0)
Moderate	2 (40.0)	3 (60.0)	5 (100.0)
Poor	0 (0.0)	0 (0.0)	0 (0.0)
Total	13 (76.5)	4 (23.5)	17 (100.0)

The Spearman Rank correlation analysis is presented in Table 3. The analysis showed a statistically significant association between nurses' perceptions of head nurse leadership style and their performance in nursing care delivery. The p-value was 0.013, which was lower than the significance level of 0.05. The correlation coefficient was r = 0.587, indicating a positive correlation with moderate strength.

Table 3. Spearman Rank correlation between nurses' perceptions of head nurse leadership style and nursing performance

Variables	n	Correlation coefficient (r)	p-value	Interpretation
Perception of head nurse leadership style and nursing performance	17	0.587	0.013	Significant positive moderate correlation

This result means that nurses who perceived the head nurse's leadership style more positively tended to have better performance in delivering nursing care. However, because this study used a cross-sectional design, the finding should be interpreted as an association rather than a causal relationship.

Discussion

This study found a significant positive moderate association between nurses' perceptions of head nurse leadership style and nurses' performance in nursing care delivery. The Spearman Rank analysis showed a p-value of 0.013 and a correlation coefficient of r = 0.587. This result indicates that nurses who perceived the head nurse's leadership style more positively tended to demonstrate better nursing performance. Most respondents had a good perception of the head nurse's leadership style. Most respondents also demonstrated good performance in implementing nursing care. This finding suggests that leadership at the ward level may support nurses in performing assessment, planning, implementation, evaluation, and documentation more consistently.

This finding strengthens the assumption that head nurse leadership has an important relationship with staff nurses' performance in clinical settings. Nurse leaders influence staff performance through direction, motivation, communication, supervision, and evaluation in daily nursing practice (Alsadaan et al., 2023). Head nurses shape nursing performance because their leadership behaviors guide staff nurses in completing clinical tasks and maintaining care standards (Qtait, 2023). Leadership style affects staff nurses because each leadership behavior creates different levels of support, clarity, trust, and responsibility in the work environment (Wang et al., 2024). Effective leadership improves nursing outcomes because leaders strengthen teamwork, accountability, and consistency in nursing care

delivery (Hult et al., 2023). The present finding is consistent with previous evidence showing that better leadership style is associated with better staff nurse performance in hospital settings (Chairun et al., 2024; Mhaezar et al., 2024).

The positive direction of the correlation shows that nurses' favorable perceptions of head nurse leadership were followed by better nursing performance. This pattern may occur because supportive leaders provide clear guidance, constructive feedback, and emotional support to nurses during clinical work (Gebreheat et al., 2023). Transformational leadership strengthens nurse motivation because leaders encourage professional development, appreciation, and shared commitment to patient care (Ystaas et al., 2023). Situational leadership supports nursing management because leaders adjust their behavior to staff readiness, task complexity, and ward conditions (Wang et al., 2024). Delegation and self-confidence also support leadership effectiveness because head nurses must assign tasks clearly and empower staff nurses to complete responsibilities (Mohamed et al., 2022). Therefore, head nurses who combine direction, supervision, support, and participation may create a work climate that facilitates better performance among staff nurses (Gruebling et al., 2025).

The result also indicates that head nurse leadership may contribute to the implementation of the nursing process in inpatient care. The nursing process requires nurses to perform assessment, nursing diagnosis, planning, implementation, evaluation, and documentation in a systematic manner (Toney-Butler & Thayer, 2023). Nursing performance depends on leadership support because clinical work requires clear standards, timely supervision, and structured evaluation (Patrician et al., 2024). Ward head supervision improves nursing documentation because supervision strengthens compliance, accuracy, and accountability in recording nursing care (Langingi et al., 2024). Nursing documentation quality improves when nurses receive structured guidance and supervision in the implementation of nursing care standards (Putri et al., 2025). Patient satisfaction also depends on nursing service quality because nurses directly influence patients' experiences through responsiveness, communication, and continuity of care (Duwith & Gurning, 2024).

The respondent characteristics provide an important context for interpreting the study findings. Most respondents were female, had Diploma III Nursing education, and were at the PK I clinical career level. Staff nurses at an early clinical career level may need more frequent guidance because they are still developing confidence, clinical judgment, and documentation habits in routine practice (Batran et al., 2025). Engaging leadership supports nurse well-being because leaders improve work motivation and strengthen the quality of the work environment (Kohnen et al., 2024). Work engagement contributes to nursing performance because engaged nurses show stronger commitment, energy, and responsibility in clinical care activities (Aqtam et al., 2025b). Supportive leadership may also reduce turnover intention because staff nurses are more likely to remain in work environments that provide recognition, fairness, and organizational support (Conroy et al., 2023; Pattali et al., 2024).

This study also has relevance for nursing management and patient safety in hospital settings. Nursing management plays a central role in patient safety because nurse leaders coordinate staffing, care delivery, supervision, and risk prevention at the unit level (Anders et al., 2025). Effective nurse leadership improves healthcare quality because leaders influence clinical culture, professional accountability, and safety-oriented behavior among nurses (Orukwowu, 2022). Transformational nurse leaders support well-being because organizational justice and quality of work life mediate the relationship between leadership and nurses' work outcomes (Alruwaili, 2025). Authentic leadership supports quality of care because leaders strengthen organizational culture and quality management practices in hospitals (Tate et al., 2023). Nursing leadership also bridges research and clinical practice because nurse leaders help translate evidence into routine nursing care and service improvement (Akbar, 2025).

The findings should be interpreted carefully because this study involved a small sample from one inpatient ward. Cross-sectional studies identify associations at one point in time, but they cannot determine causal relationships between leadership perception and nursing performance (Labrague, 2024). Small single-setting studies provide useful local evidence because they

describe specific ward-level conditions, but they have limited generalizability to other hospitals or units (Kohnen et al., 2024). Self-reported questionnaires may reflect respondents' perceptions because nurses may answer based on personal experience, social expectations, or perceived workplace norms (Suleiman et al., 2023). Future studies should involve larger samples because broader data can strengthen statistical power and improve the external validity of leadership-performance findings (Hajizadeh et al., 2025). Future research should also examine additional variables such as work environment, job satisfaction, organizational support, and documentation compliance because these factors may influence the relationship between leadership and nursing performance (Rohyani, 2025; Nurjaman et al., 2025).

Conclusion and Recommendation

This study concludes that nurses' perceptions of head nurse leadership style were significantly associated with nurses' performance in nursing care delivery. Nurses who perceived the head nurse's leadership style more positively tended to demonstrate better performance in implementing nursing care. Head nurses should strengthen leadership practices through clear direction, routine supervision, constructive feedback, fair task distribution, open communication, and continuous motivation for staff nurses. Hospital management should support head nurses through leadership training, structured supervision systems, and regular evaluation of nursing care performance. Future studies should involve larger samples, multiple wards, and additional organizational variables to provide stronger evidence regarding the relationship between head nurse leadership and nursing performance.

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No AI tools were used in the preparation of this manuscript.

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Data sharing is not applicable to this article.

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