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ORIGINAL

A Descriptive Exploratory Study on the Role of Leadership Styles in Fostering Work Performance and Autonomy in Nurses' Decision-Making

Estudio Descriptivo Exploratorio sobre el Papel de los Estilos de Liderazgo en la Promoción del Desempeño Laboral y la Autonomía en la Toma de Decisiones de las Enfermeras

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ABSTRACT

Introduction: leadership is crucial in nursing as it influences decision-making autonomy and work performance. Studies have shown that leadership styles affect nursing outcomes and patient care, but there is limited understanding of how these styles affect nurses' autonomy and performance.
Objetive: this study aims to evaluate the role of leadership styles in fostering work performance and autonomy in nurses' decision-making at Northern Region Hospitals.
Method: this study used a descriptive exploratory design. The data was collected using a cross-sectional survey. Convenience sampling, with a sample size of 102, was used to recruit participants. The instruments used were the Multi-Factor Leadership Questionnaire–Adapted Version questionnaires, the Individual Work Performance Questionnaire, and the Autonomy Scale.
Results and Conclusions: the study found a linear relationship between transformational leadership style and nurse work performance and autonomy. Transformational leaders foster support, collaboration, and empowerment, enhancing nurses' autonomy in clinical decision-making. Healthcare organizations should prioritize developing transformational leadership among nurse managers to improve job satisfaction, patient care outcomes, and effective nursing management strategies.

Keywords: Transformational Leadership; Transactional Leadership; Nurse Autonomy; Work Performance; Nursing Leadership; Healthcare Management.

RESUMEN

Introduction: el liderazgo es crucial en la enfermería ya que influye en la autonomía en la toma de decisiones y en el desempeño laboral. Los estudios han demostrado que los estilos de liderazgo afectan los resultados de enfermería y la atención al paciente, pero hay un conocimiento limitado de cómo estos estilos afectan la autonomía y el desempeño de las enfermeras.
Objetivo: este estudio tiene como objetivo evaluar el papel de los estilos de liderazgo en la promoción del desempeño laboral y la autonomía en la toma de decisiones de las enfermeras en los hospitales de la Región Norte.
Metodo: este estudio utilizó un diseño descriptivo exploratorio. Los datos se recolectaron mediante una encuesta transversal. Se utilizó muestreo por conveniencia, con un tamaño de muestra de 102, para reclutar a los participantes. Los instrumentos utilizados fueron los cuestionarios de la versión adaptada del Cuestionario de Liderazgo Multifactorial, el Cuestionario de Desempeño Individual en el Trabajo y la Escala de Autonomía.

Resultados y Conclusiones: el estudio encontró una relación lineal entre el estilo de liderazgo transformacional y el desempeño laboral y la autonomía de las enfermeras. Los líderes transformacionales fomentan el apoyo, la colaboración y el empoderamiento, mejorando la autonomía de las enfermeras en la toma de decisiones clínicas. Las organizaciones de atención médica deben priorizar el desarrollo del liderazgo transformacional entre los gerentes de enfermería para mejorar la satisfacción laboral, los resultados de la atención al paciente y las estrategias efectivas de gestión de enfermería.

Palabras clave: Liderazgo Transformacional; Liderazgo Transaccional; Autonomía de las Enfermeras; Desempeño Laboral; Liderazgo en Enfermería; Gestión en Salud.

INTRODUCTION

The healthcare system is a critical work environment that profoundly influences patient outcomes and societal well-being. With global population growth exerting unprecedented pressure on healthcare services, retaining skilled nurses has become a priority for sustainable healthcare delivery. In Saudi Arabia, this challenge aligns with Vision 2030, announced by Prince Mohammed bin Salman in 2016, emphasizing strengthening healthcare sectors as a cornerstone of national development.[1] Central to this goal is the role of leadership, particularly in nursing, where leaders and managers shape professional environments, staff performance, and patient care quality. Effective nursing leadership is foundational, influencing nurses' autonomy, decision-making capabilities, and overall work performance.[2,3] Research consistently highlights that nurse managers' leadership styles significantly affect the professional work environment, job satisfaction, and retention rates, key factors in achieving Vision 2030's healthcare objectives.

Nursing work performance is critical to sustainable leadership and high-quality care.[2] Nurse leaders must adopt strategies that enhance performance, such as motivational techniques that align organizational goals with nurses' willingness to excel.[4] However, heavy workloads often undermine these efforts, posing challenges to optimal performance and care delivery.[5] Leadership styles defined here as the methods and approaches nurse managers use to guide and influence their teams, play a pivotal role in this dynamic. These styles impact not only task execution but also nurses' autonomy in clinical decision-making, a process requiring expertise, judgment, and a supportive organizational framework.[3,6] In this context, autonomy refers to nurses' ability to make independent decisions that directly affect patient outcomes, fostering critical thinking and creativity essential for addressing complex healthcare demands.

The literature underscores that leadership styles significantly shape nurse involvement, decision-making engagement, and job satisfaction, with implications for patient safety and organizational success.[2,4,6,7] Transformational leadership, characterized by inspiring a shared vision and motivating staff, enhances autonomy and satisfaction, encouraging active participation and critical thinking.[8] In contrast, transactional leadership, based on structured tasks and rewards or punishments, ensures compliance and task performance but often fails to foster the same level of engagement.[8,9] Meanwhile, laissez-faire leadership, a hands-off approach with minimal guidance can lead to directionlessness, negatively impacting autonomy and morale.[8] Despite these insights, challenges such as communication barriers frequently hinder nurse-manager relationships, limiting nurses' ability to voice care-related concerns and participate in decision-making.[7,8] This limitation has been shown to erode trust, increase tension, lower morale, and reduce organizational commitment, ultimately compromising patient safety.[3,9]

Beyond performance and autonomy, effective leadership addresses pressing challenges like burnout, a pervasive issue in healthcare. Transformational leadership, for instance, mitigates burnout by cultivating supportive and engaging work environments, benefiting both staff well-being and patient outcomes.[10,11] Conversely, restricted participation in decision-making fosters mistrust and resentment toward management, further exacerbating dissatisfaction and turnover.[9] Nurses must wield greater influence and autonomy to meet these challenges as healthcare systems evolve amid shifting patient demands, medical advancements, and resource constraints.[12] At every organizational level, leadership enhances client care by advocating professional practice and fostering staff engagement.[2] Studies consistently correlate leadership styles with job satisfaction, performance, and commitment among healthcare staff, underscoring their role in driving professional growth, retention, and organizational success.[2,12,13,14,15]

Despite the recognized influence of leadership styles, few studies have specifically explored their impact on fostering autonomy and performance in clinical decision-making within hospital settings. This research gap is significant, given the evolving role of nurse managers, whose increased accountability and responsibility now encompass unit management, patient care, and staff development.[7] Providing high-quality care demands a compelling leadership style that builds trust and motivates nurses to excel.[2,17] Yet, achieving this requires overcoming barriers such as workload pressures and communication breakdowns that hinder effective leadership

and nurse empowerment.[5,14] This study aims to address this gap by evaluating how different nursing leadership styles, transformational, transactional, and laissez-faire, impact nurses' autonomy in decision-making and work performance in hospital settings. By integrating insights from prior research, this investigation seeks to inform strategies that enhance nursing practice, improve patient outcomes, and support the broader objectives of sustainable healthcare systems.

Study Aim and Objectives

This study aims to evaluate the role of leadership styles in fostering work performance and autonomy in nurses' decision-making in Saudi Arabian hospitals. The main objectives were to assess the impact of transactional leadership styles on nurses' work performance.

Research Hypothesis

The following null hypotheses were tested at α of .05 level of significance:

Ho1: There is no relationship between leadership style and autonomy in nurses' decision-making or work performance.

Ha: There is a relationship between leadership style and autonomy in nurses' decision-making or work performance.

The study Scope

This study evaluates the role of leadership styles in fostering work performance and autonomy in nurses' decision-making in Saudi Arabia's Northern Region hospitals.

Significance of the Study

Nursing managers and leaders could impact autonomy in nurses' decision-making and work performance. Leadership style dramatically impacts how the nursing staff performs at work. Transformational leadership, for example, most often positively impacts work performance through inspiration, motivation, and personalized support. Authoritarian leadership, characterized by rigid control and limited nurse input, may undermine morale and autonomy. On the other hand, laissez-faire leadership may result in a lack of direction, reducing work performance and engagement. Transformational leadership involves inspiring and motivating staff through a shared vision, whereas transactional leadership is based on structured tasks and rewards/punishments. Laissez-faire leadership is a hands-off approach with minimal guidance." Establishing strong leadership practices is essential for organizations because it empowers workers, creates a pleasant workplace atmosphere, and encourages ongoing advancement and improvement, all of which contribute to improved job performance and overall success.[18] The null and alternative hypotheses are designed to test whether leadership styles are significantly related to the autonomy in nurses' decision-making and their work performance. Descriptive statistics, including mean and standard deviation (SD) used to analyze the relationship between leadership styles and nurse outcomes. The outcomes of these tests will provide insights into the role of leadership in improving these critical areas in nursing practice.

METHOD

Design

The research design used quantitative analytical exploratory research design. A cross-sectional survey was used to collect the data. Convenient sampling was used to recruit study participants from nurses working in tertiary hospitals in the Northern Border region. While convenience sampling is cost-effective and practical, it may introduce bias as participants are self-selected, which could limit the generalizability of the findings. The sample size calculation used G*Power 3,1, an open-source power analysis software application. The estimated sample size should be 81 participants with an actual power of 0,90 and an effect size of 0,3. The effect size of 0,3 was determined based on previous literature,[19] and a power of 0,90 was chosen to ensure adequate power for detecting significant relationships between leadership styles and outcomes.

Population and Sampling

The survey was sent to nurses via online social groups. Participant recruitment was conducted through official hospital WhatsApp groups specifically designated for nurse leaders, managers, and head nurses working in tertiary hospitals in the Northern Border region from April to October 2024. These groups were selected based on verified membership of nursing administrators and active participation of departmental leadership. While this approach facilitated efficient access to nursing leaders, we recognize that participation might be limited to those actively engaged in digital professional networks. Recruitment included leadership groups from diverse hospital settings and organizational levels to enhance representativeness. The study population included staff nurses who work in a hospital and have more than three years of experience. This will make

them more experienced and help them absorb the administrative style followed by their manager. Convenience sampling was used to recruit 102 participants. The potential biases regarding sampling encompass self-selection and geographical limitations. The data was collected via an online survey that assured inclusion and anonymity to reach a circle of nurses as wide as possible. Its online nature may lack representation of diverse leadership styles across varied healthcare settings. Participants received a consent form, which included details about the study's purpose and the nature of participation. To ensure participants had sufficient time to review the consent form, the form was provided to them approximately (two) days before completing the survey. The exclusion criteria were nurses with less than three years of experience.

Data Collection Instruments and Procedure

After identifying the eligible participants, the researchers administered structured questionnaires with four parts to gather the data. The first part detailed participants' demographic data, including their age, sex, region, educational level, years of experience, level of education, and working department. The second part was about principals' leadership styles determined by their staff nurses as measured by Multi-Factor Leadership Questionnaire–Adapted Version questionnaires.[20] The third part measured nurses' work performance using the Individual Work Performance Questionnaire (IWPQ).[21] The fourth questionnaire, the Autonomy Scale, developed by Blegen et al.[22] assessed nurses' autonomy regarding patient care decisions. The self-reported tool consists of 21 items, ranging from 1 to 5. The survey was distributed electronically through Google Forms, and participants were asked to complete the survey within a week of receiving the link.

Instrument and Reliability

1. An adapted version of the Multifactor Leadership Questionnaire (MLQ).[20] It aimed to assess various leadership styles, from leaders who take a backseat to their followers to those who encourage their followers to take on leadership roles themselves. The Cronbach's alpha measures were 0,94.
2. Individual Work Performance Questionnaire (IWPQ), which consists of 18 questions on three scales: Task performance (5 items), contextual performance (8 items), and counterproductive work behavior (5 items). The participants are asked to consider how often they exhibited a certain behavior in the past three months on a scale from 1 (seldom) to 5 (always).[21]
3. The Autonomy Scale, developed by Blegen et al., was shown to have acceptable psychometric properties. The original research calculated Cronbach's alpha for the subject. The reliability coefficient for the care decisions subscale was 0,78, and for the unit operation subscale was 0,92. Cronbach's alpha values above 0,7 are considered acceptable for internal consistency, indicating that the instruments used in this study are reliable. The content validity of the full scale was assessed by an expert panel and deemed appropriate.[22]

Statistical analysis

Descriptive statistics, including mean and standard deviation (SD), will provide insights into the central tendency and variability of the data, while frequency counts and percentages will summarize categorical variables. Data will be analyzed using a combination of statistical methods to examine the relationship between leadership styles and nurses' autonomy and work performance. Specifically, Pearson correlation will be employed to assess the strength and direction of the linear relationship between these variables. Additionally, stepwise linear regression will be utilized to identify the most significant predictors of nurses' autonomy and work performance based on the leadership styles observed. Statistical significance will be set at a level of 0,05, ensuring that any findings are robust and reliable. This study attempts to handle any possible missing data or incomplete questionnaires to preserve analysis validity and statistical power. Listwise deletion and multiple imputation techniques estimate missing data and lessen bias.

Ethical Consideration

The study received ethical approval from the Local Committee of Bioethics (HAP-09-A-043) at Northern Border University (Approval No. 38/24/H) following the Institutional Review Board (IRB) review. Participants provided informed consent online before completing demographic data, with assurances of voluntary participation and the right to withdraw at any time without consequences. Their relationship with researchers remained unaffected by participation decisions, and any data from withdrawing participants would be destroyed, though no withdrawals have occurred. The study posed no health risks, involving no diagnosis or treatment, and adhered to the Helsinki Declaration's ethical principles[28] to protect participants' rights, safety, and well-being.

RESULTS

The research finding was that the demographic characteristics of the studied nurses found that more than half of them (57,8 %) are between the ages of 26 and 35 years, with an average age of (31,52 ± 7,34) years. The

majority of the participants (93,1 %) were female, and about half (56,9 %) had a bachelor's degree. It was also found that (43,1 %) of the nurses had less than or equal to 0 to 4 years of practical experience, with an average experience of (7,64 ± 6,11) years. Moreover, nearly three-quarters (73,5 %) worked in the intensive care unit, critical care, and emergency care (table 1).

Table 1. Demographic Information

Parameter	N	%
Age/year		
≤25	19	18,6
26-35	59	57,8
>35	24	23,5
Mean and SD	31,52±7,34	
Gender		
Male	7	6,9
Female	95	93,1
Educational level		
Diploma	30	29,4
Bachelor	58	56,9
Master	14	13,7
Years of Experience		
0-4	44	43,1
5-9	22	21,6
+10 years	36	35,3
Mean and SD	7,64±6,11	
Working Department		
Administration	8	7,8
CCU, ICU, Critical care, and emergency care	75	73,5
Internal Nursing	2	2,0
Public health nursing	9	8,8
Outpatient	4	3,9
PHC	4	3,9
OR	8	7,8

Figure 1 describes the leadership styles of nursing managers and leader effectiveness. It shows that half (50 %) of the nursing managers often and frequently follow transformational leadership, with a total mean of 2,39±1,040 followed by transactional leadership (43,2 %), with a total mean of 2,21±1,040. Meanwhile, less than a quarter of the nurses' managers (24,5 %) follow laissez-faire leadership, with a total mean of 1,62±1,106. Regarding the leader effectiveness of nursing managers among studied nurses, it shows that less than half (40,1 %) of their nursing managers lead effectively. Factors beyond leadership style, such as communication skills, managerial experience, and support for professional development, may influence the perception of nursing manager effectiveness (40,1 %). Future research could explore these aspects in more depth. As shown in Figure 1, the findings can assist healthcare organizations in comprehending nurses' preferred leadership styles. This may inspire training and development activities designed to enhance leadership effectiveness and improve overall job performance.

The finding shows nurses' autonomy regarding patient care decisions of the studied nurses. It reveals that the lowest mean was Refusing to carry out physicians' orders (2,75±1,124), followed by consulting with MDs and other professionals (3,12±1,111). Meanwhile, the highest means were deciding the time to administer care (3,94±1,208) and serving as a patient advocate (3,84±1,145). Additionally, it shows the total mean of nurses' autonomy regarding patient care decisions autonomy (3,58±0,90).

The mean ($\bar{x}$) indicates the average score for each autonomy feature, ranging from 1 to 5. A higher mean score signifies greater autonomy in that specific domain. Based on the mean scores, nurses appear to have a moderate to high degree of autonomy in most of the areas outlined. For instance, tasks such as acting as a

patient advocate, scheduling treatment, collaborating on care plans with the patient, and setting the discharge date received higher average ratings (above 3,5) (table 2).

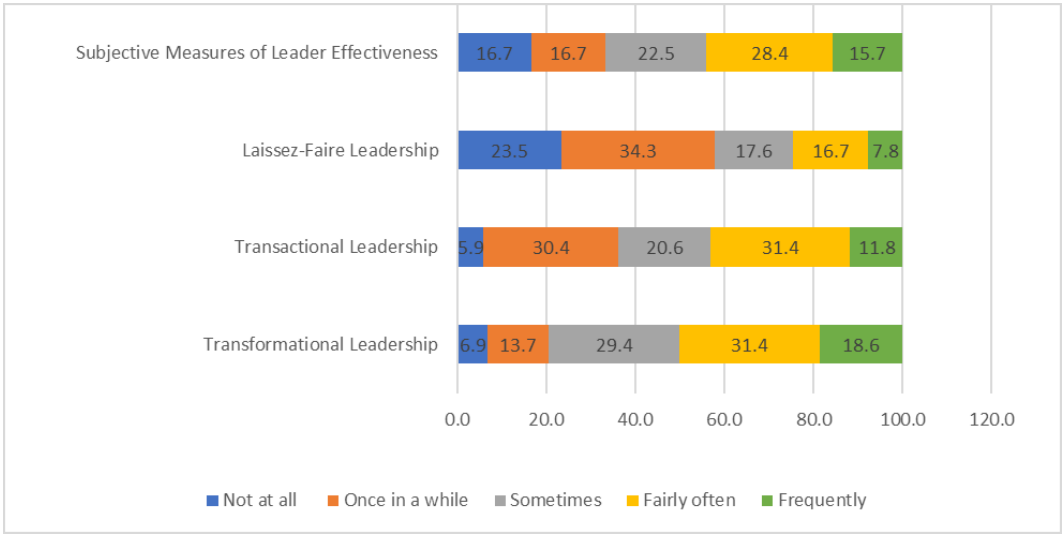

Figure 1. Frequency of nurses regarding Leadership Styles and Subjective Measures of Leader Effectiveness (N=102)

Table 2. Mean and Standard Deviation of Nurses' Autonomy Regarding Patient Care Decisions Autonomy (N=102)

Autonomy in nurses' decision-making	$\bar{x}$	SD
Serve as patient advocate	3,84	1,145
Question physician orders	3,60	1,126
Teach about patient medication	3,37	1,156
Consult with MD and other professionals	3,12	1,111
Prevent skin breakdown	3,20	1,123
Teach self-care activities	3,32	1,181
Discuss alternatives with a physician	3,52	1,184
Prevent patient falls	3,48	1,097
Teach health care promotion activities	3,81	1,152
Refuse to carry out physicians' orders	2,75	1,124
Decide the time to administer care	3,94	1,208
Plan care with the patient	3,78	1,194
Advance PRN orders	3,80	1,188
Refer to other healthcare professionals	3,69	1,179
Make the decision for pain management	3,47	1,184
Handle individual patients' complaints	3,70	1,123
Develop patient education material	3,77	1,110
Handle physician complaints	3,57	1,128
Inform the patient of surgery risks	3,74	1,081
Order diagnostic test	3,74	1,138
Determine the day of discharge	3,88	1,111
Mean of Patient Care Decisions Autonomy	3,58	0,90

Table 3 reveals that nurses reported high mean scores for task performance indicators, including timely work completion, prioritizing tasks, efficient work execution, and effective time management. The total mean score for task performance is (3,89 ± 0,85). The nurses reported moderate mean scores for contextual performance indicators, including initiating new tasks, taking on challenging tasks, keeping job-related knowledge and skills up-to-date, creative problem-solving, taking on extra responsibilities, seeking new challenges, and actively participating in meetings and consultations. The total mean score for contextual performance is (3,62± 0,89).

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Nurses reported low mean scores for counterproductive work behavior indicators, such as complaining about minor work-related issues, making problems bigger, focusing on negative aspects instead of positive ones, talking to colleagues, and talking to people outside the organization. The total mean score for counterproductive work behavior is (1,77±0,75). Additionally, the table found a high mean score for total work performance among the studied nurses (3,87±0,66). The data indicates a proficient workforce with the potential for enhancing contextual behaviors to improve engagement and effectiveness, guiding actions to improve contextual performance and maintain high task performance.

Table 3. Mean and Standard Deviation of Studied Nurses Regarding Their Work Performance (N= 102)

Work Performance	$\bar{x}$	**SD**
Task performance		
I was able to plan my work so that I finished it on time.	3,72	1,052
I kept in mind the work result I needed to achieve.	3,83	1,082
I was able to set priorities.	4,01	1,055
I was able to carry out my work efficiently.	4,27	.881
I managed my time well	3,67	1,118
Total Task performance	3,89	0,85
Contextual performance		
On my own initiative, I started new tasks when my old tasks were completed	3,52	1,130
I took on challenging tasks when they were available	3,73	1,162
I worked on keeping my job-related knowledge up to date.	3,74	1,138
I worked on keeping my work skills up to date.	4,04	0,89
I came up with creative solutions for new problems.	3,48	1,119
I took on extra responsibilities.	3,65	1,226
I continually sought new challenges in my work.	3,69	1,211
I actively participated in Meetings and/or consultations.	3,14	1,358
Total Contextual performance	3,62	0,89
Counterproductive work behavior		
I complained about minor work-related issues at work.	2,16	1,188
I made problems at work bigger than they were.	1,40	0,80
I focused on the negative aspects of the situation at work instead of the positive aspects.	1,47	0,81
I talked to colleagues about the negative aspects of my work.	2,04	1,054
I talked to people outside the organization about the negative aspects of my work.	1,79	0,971
Total Counterproductive work behavior	1,77	0,75
Total Work Performance	3,87	0,66

The findings showed a highly positive significant correlation between the transformational, laissez-faire leadership styles and subjective measures of leader effectiveness with patient care decision autonomy ($p \leq 0,001$). A p-value of ≤0,001 indicates a very strong and statistically significant correlation, suggesting that the relationship between the leadership style and the outcome is unlikely to have occurred by chance. However, transactional leadership style is not correlated with clinical decision-making ($p>0,05$). Additionally, it shows a highly positive significant correlation between transactional leadership styles and work performance ($p \leq 0,001$). In contrast, there is an insignificant correlation between transformational leadership style, laissez-faire leadership, and subjective measures of leader effectiveness ($p >0,05$). While transformational leadership has a strong impact on autonomy in decision-making, it may not directly influence work performance, perhaps because transformational leaders focus more on motivation and empowerment rather than task-oriented aspects of performance. In contrast, transactional leadership, which focuses on rewards and penalties, may have a more immediate impact on nurses' work performance but does not necessarily encourage autonomy in decision-making. As seen in table 4, transformational and laissez-faire leadership styles are significantly correlated with nurses' autonomy, suggesting that these styles support autonomy in decision-making processes.

Table 4. Correlation between Transformational, Transactional, and Laissez-faire Leadership Style, Subjective Measures of Leader Effectiveness and Patient Care Decisions Autonomy and Work Performance (N=102)

Leadership Style	Patient Care Decisions Autonomy		Work Performance	
	Person correlation	P value	Person correlation	P value
Transformational leadership style	0,453**	0,000**	0,054	0,588
Transactional leadership style	-0,090	0,368	0,472**	0,000**
Laissez-Faire Leadership	0,290	0,003**	0,154	0,123
Subjective Measures of Leader Effectiveness	0,407**	0,000**	0,001	0,995

**Correlation is significant at the 0,01 level (2-tailed).
* Correlation is significant at the 0,05 level (2-tailed).

Table 5 shows the results of a stepwise linear regression model that inspected the relationship between nurses' autonomy regarding patient care decisions autonomy as the dependent variable and personal characteristics and leadership style as the independent variables of the nurses studied. Shows a significant relationship between transformational leadership and nurses' decision-making autonomy. The model has a beta coefficient of 0,453, indicating a strong positive influence on nurses' autonomy. The R^2 value of 0,205 suggests that independent variables explain 20,5 % of the variance in independence. This highlights the significant impact of transformational leadership on enhancing decision-making autonomy in clinical settings. The F value of 25,841 further reinforces the model's significance. This highlights the importance of fostering transformational leadership to improve clinical decision-making outcomes.

Table 5. Stepwise linear regression model with autonomy in nurses' decision-making as the dependent variable, personal characteristics, and leadership style as the independent variable

Autonomy in nurses' decision-making as the dependent variable				
Independent variable	**Beta Coefficient**	**Standard error**	**T values**	**P values**
(Constant)		0,211	7,225	0,000
Transformational	0,453	0,82	5,083	0,000
R (0,453), R^2 (0,205), F value (25,841), P value (0,000)				
Note: Excluded variables: Age, Gender, Educational level, Years of Experience, Subjective Measures of Leader Effectiveness, Transactional leadership style, Passive Avoidant leadership style.				

Regarding work performance, table 6 reveals that the model selected transactional leadership style as the only significant predictor of nurses' work performance $p < 0,01$, indicating that the transactional leadership style positively and significantly affected nurses' work performance. It shows that transactional leadership style significantly impacts work performance among nurses. The model shows a beta coefficient of 0,472, indicating a positive impact. The R^2 value of 0,223 suggests that independent variables can account for 22,3 % of the variance in work performance. This highlights the role of transactional leadership in improving work performance in clinical settings. The model's significance is further supported by an F value of 10,354. However, variables like age, gender, educational level, years of experience, subjective measures of leader effectiveness, transformational leadership style, and passive avoidant leadership style were excluded from the analysis. Future research could explore these excluded variables for a more comprehensive understanding of work performance dynamics among nursing professionals.

Table 6. Stepwise linear regression model with Work performance as the dependent variable, personal characteristics, and leadership style as the independent variable

Work performance as the dependent variable				
Independent variable	**Beta Coefficient**	**Standard error**	**T values**	**P values**
Constant		0,151	21,252	0,000
Transactional leadership style	0,472	0,060	5,500	0,000
R (0,472), R^2 (0,223), F value (10,354), P value (0,000)				
Excluded variables Age, Gender, Educational level, Years of Experience, Subjective Measures of Leader Effectiveness, Transformational leadership style, Passive Avoidant leadership style.				

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DISCUSSION

Effective clinical leadership is crucial in maintaining a high-quality healthcare system consistently delivering safe and efficient care.[23] This study investigated the role of leadership styles in fostering work performance and autonomy in nurses' decision-making. The study revealed that 57,8 % of nurses are aged between 26 and 35, with an average age of 31,52 ± 7,34. Most are female, with 56,9 % having a bachelor's degree. 43,1 % have less than or equal to 5 years of practical experience, averaging 7,64 ± 6,11 years. Additionally, our findings showed that 40,1 % of nursing managers often follow transformational leadership, followed by transactional leadership. In contrast, less than a quarter, 24,5 % of the nurses' managers follow laissez-faire leadership. Regarding the leader effectiveness of nursing managers, it shows that less than half of them lead effectively.

A previous study supported these findings by demonstrating that head nurses obtained the highest scores in transformational leadership, followed by transactional leadership and passive-avoidant leadership.[24] Similarly, Mohamed's[17] study on critical care nurses revealed that staff nurses prefer democratic, authoritarian, and laissez-faire leadership styles. Transformational leaders invest time in educating and coaching nurses, nurturing their talents, providing professional development guidance, treating subordinates as individuals, and attentively listening to their concerns.[25] This approach enhances nurses' efficiency and dedication toward achieving established goals.

Leadership effectiveness among nursing managers represents a critical concern in contemporary healthcare settings. Leadership deficit manifests across multiple dimensions of healthcare management, including strategic planning, staff development, and organizational performance metrics. According to a comprehensive analysis by [26], effective nursing leadership is characterized by strategic decision-making capabilities, communication frameworks, and the ability to drive positive organizational outcomes. Their research revealed that only a minority of nursing managers consistently demonstrated these essential leadership attributes. This deficiency significantly impacts healthcare delivery systems, as evidenced by decreased staff satisfaction rates in poorly led units compared to effectively managed departments, markedly elevated staff turnover in units with ineffective leadership, and compromised patient care quality metrics.[27] Moreover, Välimäki et al.[28] found that nursing managers who exhibit effective leadership traits achieve substantially better outcomes, including significantly higher staff retention rates and improved patient satisfaction scores. These findings underscore the substantial gap between effective and ineffective nursing leadership, highlighting the profound impact of leadership quality on healthcare delivery outcomes.

The study found a strong correlation between transformational and laissez-faire leadership styles and patient care decision autonomy, while transactional leadership styles positively correlated with work performance. However, there was no significant correlation with clinical decision-making or leader effectiveness. These findings are further supported by Thabet et al., who discovered a significant correlation between supportive leadership styles and nurses' autonomy regarding patient care decisions autonomy.[7] They found a positive correlation between directive style ($p = 0,006$) and analytical style ($p = 0,007$), while team administration style exhibited a negative correlation with conceptual style ($p = 0,001$) and behavioral style ($p = 0,041$).

Transformational leadership is a popular approach among nursing managers, but its effectiveness is often underutilized due to organizational constraints, inadequate leadership development programs, and the complex demands of healthcare environments. This leadership style enhances decision-making autonomy through individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence.[29] This creates an environment that empowers nurses, facilitates professional growth, and builds trust-based relationships. Successful implementation of transformational leadership leads to improved staff empowerment, job satisfaction, and better patient care outcomes. However, the gap between understanding and implementing transformational leadership principles underscores the need for targeted leadership development programs.[30] Similarly, a recent study by Ariani et al. confirmed that leadership style significantly positively impacted job satisfaction and nurse performance in Dumi Public Health.[31] Transformational, transactional, and democratic leadership styles all positively and significantly influenced nurses' performance, while transformational, transactional, laissez-faire and democratic leadership styles positively and significantly impacted job satisfaction.

Furthermore, the current study aligns with the findings of Zarina et al.[32] who reported a positive correlation between leadership style and quality of work life (QWL) among nurses. The transactional leadership style showed the highest correlation, followed by transformational, democratic, and autocratic styles. Implementing transactional leadership could enhance the quality of life for nurses in their workplace, suggesting that a more effective leadership style is crucial for enhancing QWL.

In contrast, Mohamed reached different conclusions.[17] They found that head nurses primarily exhibited democratic, authoritarian, and laissez-faire leadership styles, with high agreement among staff nurses about clinical decision-making autonomy. However, no significant relationship was found between nurses' clinical decision-making autonomy and leadership styles.

The strong association identified between transformational and laissez-faire leadership styles and autonomy in patient care decision-making provides a different perspective from studies that advance more prescriptive

leadership approaches in clinical settings.[27] More particularly, whereas transformational leadership is positively correlated to autonomy in patient care decision-making, our findings indicate that transactional leadership styles are positively related to work performance but do not have a significant relationship to either clinical decision-making or leader effectiveness. This is contrary to expectations, considering that transactional leadership could influence clinical outcomes through structured leadership set by recent studies such as Enwereuzor et al.[28].

However, the results were contradictory due to methodological and contextual factors. Variations in healthcare settings, such as organizational culture, resource availability, and institutional policies, may influence how leadership styles impact autonomous decision-making. The operational definition and measurement of transformational leadership and autonomy may also vary across studies, potentially contributing to inconsistent findings. Demographic variations in sample populations, including nursing experience levels, educational backgrounds, and cultural contexts, may also moderate the relationship between leadership style and autonomy. These findings highlight the complex and context-dependent nature of nursing leadership effectiveness. Future research should adopt more nuanced approaches, including mixed method designs and longitudinal studies, to understand the evolution of transformational leadership on autonomy over time and across different healthcare contexts.

The study found that transformational leadership style was the only significant predictor of nurses' autonomy, with other variables like age, gender, education level, years of experience, and different leadership styles not significantly affecting nurses' autonomy. However, significant correlations were found between leadership orientations and other factors.[33] They also discovered a significant correlation between nurses' clinical decision-making skills and age, sex, and occupational status ($p < 0,05$). Additionally, they identified a significant correlation between the mean scores of the Leadership Orientation Scale and the Clinical Decision-Making in Nursing Scale ($p < 0,05$).[34]

The study found that transactional leadership style was the only significant predictor of nurses' work performance p value<0,01. Other variables like age, gender, education, years of experience, and leadership styles were excluded as they did not significantly impact nurses' autonomy regarding patient care decisions p value >0,05.

A recent study by AlFlayyeh and Alghamdi demonstrated that the effects of four alternative leadership styles, transformational, transactional, authoritative, and laissez-faire, on worker performance were examined using linear regression.[18] The study found a significant positive relationship between transformational, transactional, and authoritative leadership styles and employee performance in the healthcare sector. However, no significant correlation was found between laissez-faire leadership and employee performance. The findings support the notion that these leadership styles positively impact employee performance.

The differences between our results and those of other studies point to the complexity of leadership styles in nursing settings. For instance, whereas previous literature tends to interpret transformational leadership as a universal positive influence on both autonomy and performance,[30] our results indicate that it may not influence clinical decision-making. Such differences may arise from contextual factors, such as the specific healthcare environment or cultural differences that influence leadership effectiveness.

Moreover, because transactional leadership, which plays a very important role in enhancing work performance, is not related to clinical decision-making, several fundamental questions about the nature of leadership in practice arise. This, therefore, means that even as transactional leadership provides the necessary framework for the nurses to effectively perform their duties, it does not allow them to make decisions that are critical in clinical settings. This finding runs contrary to studies whose intent is to direct a wider view of leadership, which encompasses both transformational and transactional elements in creating a supportive environment for the nursing workforce.[31]

Lastly, the lack of significant correlations with clinical decision-making may reflect systemic issues within healthcare organizations that prioritize efficiency over autonomy. Also, this will address the concerns in the literature that a leadership style does not adapt to the dynamic needs more apparent in nursing practice.[32,33] How these disparities in views come to be will need to be further explored in research that conceptualizes how leadership styles interact with contextual factors for a more comprehensive insight into how nurses can best be supported within their professional roles.

Research Limitation

This study's findings have limitations due to its regional focus, cross-sectional nature, and reliance on self-reported measures. Cultural nuances, healthcare system variations, and regulatory frameworks may influence leadership styles and nursing outcomes. The cross-sectional nature captures only a snapshot of leadership-outcome relationships, and self-reported measures may introduce method bias. Future research should use longitudinal studies, multi-center studies, mixed-method approaches, and objective performance metrics better to understand leadership impacts and their effects on nursing outcomes. Moreover, this study is of a cross-sectional design, which limits any assertions on the causal relationship amongst the leadership styles and performance and clinical decision making. Subsequent studies may adopt a prospective approach to enable

time-related variations within the effectiveness of leadership. Multicentric studies involving a population with diverse participants in different healthcare settings would increase the generalizability of the results and allow the development of adapted leadership strategies for nursing staff in diverse environments.

CONCLUSIONS

The study reveals a significant correlation between transformational leadership style and subjective measures of leader work performance and autonomy in nurses' decision-making. This highlights leadership's crucial role in enhancing nursing staff autonomy, thereby improving patient care outcomes. Healthcare organizations should prioritize fostering transformational leadership practices to empower nurses, encourage independent decision-making, and improve work performance. Nursing managers should receive training in transformational leadership.

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CONFLICT OF INTEREST

The authors have declared no conflict of interest.

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