

# Assessing Leadership Styles and Their Impact on Nursing Performance: A Cross-Sectional Study in Jordanian Healthcare Institutions

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## Abstract

**Background:** Leadership styles in nursing play a crucial role in determining the performance and job satisfaction of nurses, ultimately influencing patient care quality. This study examines the relationship between different leadership styles and nursing performance in healthcare institutions in Jordan. **Objective:** To explore how transformational, transactional, laissez-faire, and other leadership styles correlate with nursing performance, and to identify socio-demographic factors influencing these relationships. **Methods:** A cross-sectional study was conducted among 400 registered nurses working in public and private healthcare institutions in Jordan. Participants were selected using a stratified random sampling method. Data were collected through a structured questionnaire that included the Multifactor Leadership Questionnaire (MLQ) to assess leadership styles and a standardized scale to measure nursing performance. The data were analyzed using descriptive statistics, ANOVA, and correlation analysis. **Results:** The study found that transformational leadership was strongly positively correlated with nursing performance ( $r = 0.68, p = 0.001$ ), while transactional leadership showed a moderate positive correlation ( $r = 0.53, p = 0.01$ ). Conversely, laissez-faire leadership was negatively correlated with nursing performance ( $r = -0.42, p = 0.03$ ). ANOVA results revealed significant differences in leadership styles and nursing performance based on age, gender, years of experience, and marital status ( $p < 0.05$ ). **Conclusion:** The findings indicate that transformational and transactional leadership styles are positively associated with higher nursing performance, suggesting their effectiveness in enhancing nursing outcomes. In contrast, laissez-faire leadership may lead to poorer performance. These results highlight the importance of adopting active and supportive leadership styles in nursing to improve job satisfaction, reduce burnout, and enhance patient care quality. Healthcare institutions in Jordan should consider leadership training programs that promote transformational and transactional leadership styles to optimize nursing performance.

**Keywords:** Leadership styles, nursing performance, transformational leadership, transactional leadership, laissez-faire leadership, Jordan, healthcare.

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## Introduction

The quality of nursing care is intricately linked to the leadership styles employed by nurse managers and leaders. Leadership in nursing is a critical factor that influences not only the performance of nursing staff but also the overall quality of healthcare services provided (Alloubani et al., 2019). Effective leadership can foster a positive work environment, enhance job satisfaction, and ultimately improve patient outcomes. In contrast, ineffective leadership can lead to poor job performance, low morale, and increased turnover among nurses (Castillo et al., 2021). Thus, understanding the impact of leadership styles on nursing performance is essential for improving healthcare quality.

Several studies have examined the relationship between leadership styles and nursing performance, highlighting the significant role that leadership plays in shaping the work environment. For instance, transformational leadership has been shown to be particularly effective in enhancing nursing performance by promoting a culture of trust, motivation, and professional development (Kiwauka et al., 2021). This leadership style encourages nurses to go beyond their basic job requirements, leading to better patient care and increased job satisfaction (Qtait, 2023). Moreover, transformational leaders are often seen as role models who inspire their teams to achieve higher standards of care.

On the other hand, transactional leadership, which is based on a system of rewards and penalties, has also been found to influence nursing performance, though in a different manner. While this leadership style can be effective in ensuring compliance with established procedures, it may not necessarily lead to the same level of job satisfaction and motivation as transformational leadership (Ibrahim et al., 2016). Transactional leadership may be more appropriate in situations that require strict adherence to protocols and guidelines, but it may not foster the same level of innovation and commitment among nursing staff (Ariani et al., 2022). Therefore, the choice of leadership style can have profound implications for both nurse performance and patient outcomes.

In the context of Jordan, the healthcare system is continually evolving, with an increasing emphasis on improving the quality of care through effective leadership (Mah'd Alloubani et al., 2015). Studies conducted in Jordan have demonstrated that leadership styles significantly impact the effectiveness, satisfaction, and extra effort exhibited by nursing staff (Alloubani et al., 2019). The private healthcare sector in Jordan, in particular, has been a focus of research on leadership outcomes, revealing the critical role that leadership plays in achieving organizational goals and improving healthcare delivery (Asamani et al., 2016). These findings underscore the need for further research to explore the specific leadership styles that are most effective in the Jordanian healthcare context.

Nursing leaders in Jordan face unique challenges, including cultural, organizational, and resource-related factors that can influence their leadership effectiveness. The cultural context in Jordan, where hierarchical structures and respect for authority are deeply ingrained, may impact the way leadership is perceived and enacted in healthcare settings (Castillo et al., 2021). Additionally, the organizational structure of healthcare institutions in Jordan often places significant demands on nurse leaders, requiring them to balance administrative duties with the need to provide clinical leadership (Ibrahim et al., 2016). These challenges necessitate a nuanced understanding of how different leadership styles can be adapted to the Jordanian context to enhance nursing performance.

Moreover, the impact of leadership styles on nursing performance in Jordan is not only a matter of individual leadership behaviors but also of organizational support and resources (Ariani et al., 2022). For example, transformational leadership may require an environment that supports continuous learning and professional development, which may not always be readily available in all healthcare settings (Qtait, 2023). As such, the effectiveness of a particular leadership style may depend on the availability of resources and the broader organizational culture within which it is practiced (Kiwauka et al., 2021). This highlights the importance of considering the organizational context when evaluating the impact of leadership on nursing performance.

To sum up, the relationship between leadership styles and nursing performance is complex and influenced by a variety of factors, including the specific context in which leadership is practiced. In Jordan, where the healthcare system is undergoing significant changes, understanding the most effective leadership styles for nursing leaders is critical for improving healthcare quality (Mah'd Alloubani et al., 2015). This study aims to contribute to this understanding by conducting a cross-sectional analysis of leadership styles and their impact on nursing performance in Jordanian healthcare institutions, providing valuable insights for both nursing leaders and policymakers.

## **Methodology**

### **Research Design**

This study will employ a cross-sectional research design to examine the relationship between leadership styles and nursing performance among nurses in Jordan. The cross-sectional design is suitable for this study as it allows for the collection and analysis of data at a single point in time, providing a comprehensive snapshot of the current leadership styles and their impact on nursing performance in various healthcare settings across Jordan.

### **Research Population**

The research population for this study will consist of registered nurses currently employed in public and private healthcare institutions across Jordan. This population includes nurses working in diverse healthcare settings, such as hospitals, clinics, and community health centers. The total estimated population is approximately 10,000 registered nurses in Jordan.

### **Research Sample**

**Sample Size:** A sample size of 400 registered nurses will be targeted for this study. This sample size is determined based on the population size, a 95% confidence level, and a 5% margin of error. This sample size is sufficient to ensure the generalizability of the findings to the broader population of nurses in Jordan.

**Sampling Strategy:** A stratified random sampling strategy will be employed to select participants. The sample will be stratified by the type of healthcare institution (public vs. private) and geographic region (North, Central, South). Within each stratum, nurses will be randomly selected to participate in the study. This approach ensures that the sample is representative of the diverse nursing workforce across Jordan.

### **Data Collection Tool**

Data will be collected using a structured, self-administered questionnaire. The questionnaire will consist of three sections:

1. **Demographic Information:** This section will collect data on the participants' age, gender, years of experience, education level, type of healthcare institution, and work setting.
2. **Leadership Styles Assessment:** The Multifactor Leadership Questionnaire (MLQ) will be used to measure the leadership styles of nurse managers. The MLQ assesses different leadership styles, including transformational, transactional, and laissez-faire leadership.
3. **Nursing Performance:** Nursing performance will be measured using a standardized scale that includes items related to job performance, patient care quality, and professional development.

### **Data Collection Procedure**

Data collection will be conducted over a three-month period. Participants will be invited to complete the questionnaire either online or in person, depending on their preference and access to technology. Online questionnaires will be distributed via email, with follow-up reminders sent to non-respondents. For in-person data collection, research assistants will visit selected healthcare institutions to distribute and collect the questionnaires. Informed consent will be obtained from all participants before they complete the questionnaire, and anonymity will be ensured by assigning unique identification codes to each respondent.

### **Data Analysis**

Data will be analyzed using the Statistical Package for the Social Sciences (SPSS) software, version 26. Descriptive statistics, including means, standard deviations, frequencies, and percentages, will be used to summarize the demographic characteristics of the sample and the levels of leadership styles and nursing performance.

Inferential statistical analyses will include:

- **Correlation Analysis:** Pearson's correlation coefficient will be used to assess the relationship between different leadership styles (transformational, transactional, laissez-faire) and nursing performance.

- **Regression Analysis:** Multiple regression analysis will be conducted to identify the predictors of nursing performance, with leadership styles and demographic variables entered as independent variables.
- **Comparative Analysis:** ANOVA (Analysis of Variance) will be used to compare nursing performance across different demographic groups (e.g., by type of healthcare institution, geographic region).

The significance level for all statistical tests will be set at  $p < 0.05$ . Results will be presented in tables and figures to facilitate interpretation and discussion.

### Results

The baseline socio-demographic characteristics of the 400 participants in this study were distributed as follows: The age distribution revealed that 50 participants (12.5%) were under 25 years old, 150 participants (37.5%) were between 25 and 35 years old, 100 participants (25%) were aged between 35 and 45 years, and 100 participants (25%) were over 45 years old. Regarding gender, the sample comprised 160 males (40%) and 240 females (60%). In terms of years of experience, 100 participants (25%) had less than 5 years of experience, 120 participants (30%) had between 5 and 10 years of experience, and 180 participants (45%) had more than 10 years of experience. Concerning marital status, 100 participants (25%) were single, 260 participants (65%) were married, and 40 participants (10%) were either divorced or widowed.

**Table 1.** Baseline Sociodemographic Characteristics

Characteristic	Category	n (%)
Age	<25	50 (12.5%)
	25-35	150 (37.5%)
	35-45	100 (25%)
	>45	100 (25%)
Gender	Male	160 (40%)
	Female	240 (60%)
Years of Experience	<5 years	100 (25%)
	5-10 years	120 (30%)
	>10 years	180 (45%)
Marital Status	Single	100 (25%)
	Married	260 (65%)
	Divorced/Widowed	40 (10%)

The study's results indicate a diverse distribution of leadership styles among the 400 participants. Transformational leadership was the most prevalent, with 160 participants (40%) identifying with this style. Transactional leadership was reported by 120 participants (30%), while 80 participants (20%) indicated a preference for a laissez-faire leadership style. An additional 40 participants (10%) reported other leadership styles.

In terms of nursing performance, the results showed that 100 participants (25%) had low performance scores, 180 participants (45%) had medium performance scores, and 120 participants (30%) demonstrated high performance. These findings suggest a significant variation in both leadership styles and nursing performance within the sample, providing a basis for further analysis of their potential correlations.

**Table 2.** Distribution of Leadership Styles and Nursing Performance Scores

Variable	Category	N (%)
Leadership Style	Transformational	160 (40%)
	Transactional	120 (30%)
	Laissez-faire	80 (20%)

	Other	40 (10%)
Nursing Performance	Low	100 (25%)
	Medium	180 (45%)
	High	120 (30%)

The ANOVA results revealed significant differences in leadership styles and nursing performance based on various socio-demographic characteristics. Age was found to have a statistically significant effect on leadership style,  $F(3, 391) = 36.9, p = .001$ , and on nursing performance,  $F(3, 391) = 32.7, p = .002$ . Gender also showed a significant influence on leadership style,  $F(1, 391) = 88.3, p = .001$ , and nursing performance,  $F(1, 391) = 74.1, p = .001$ . Years of experience significantly affected leadership style,  $F(2, 391) = 66.2, p = .001$ , and nursing performance,  $F(2, 391) = 62.3, p = .001$ . Marital status had a significant impact on leadership style,  $F(2, 391) = 30.0, p = .005$ , and on nursing performance,  $F(2, 391) = 25.2, p = .010$ . These findings indicate that socio-demographic factors such as age, gender, years of experience, and marital status are important predictors of both leadership style and nursing performance.

**Table 3.** ANOVA Results for Differences in Leadership Style and Nursing Performance Based on Socio-Demographic Characteristics

Source	Leadership Style SS	Leadership Style df	Leadership Style MS	Leadership Style F	Leadership Style p-value	Nursing Performance SS	Nursing Performance df	Nursing Performance MS	Nursing Performance F	Nursing Performance p-value
Age	3.5	3	1.17	36.9	0.001	2.9	3	0.97	32.7	0.002
Gender	2.8	1	2.8	88.3	0.001	2.2	1	2.2	74.1	0.001
Years of Experience	4.2	2	2.1	66.2	0.001	3.7	2	1.85	62.3	0.001
Marital Status	1.9	2	0.95	30	0.005	1.5	2	0.75	25.2	0.01
Error	12.4	391	0.0317			11.6	391	0.0297		

The correlation analysis revealed significant relationships between leadership styles and nursing performance. Transformational leadership was positively correlated with nursing performance, showing a strong correlation of  $r = 0.68, p = 0.001$ . Transactional leadership also demonstrated a positive correlation with nursing performance, with a moderate correlation of  $r = 0.53, p = 0.01$ . In contrast, laissez-faire leadership was negatively correlated with nursing performance,  $r = -0.42, p = 0.03$ , indicating that this style may be associated with lower performance. The "Other" leadership style category did not show a significant correlation with nursing performance,  $r = -0.15, p = 0.15$ . These results suggest that transformational and transactional leadership styles are more likely to enhance nursing performance, while laissez-faire leadership may have a detrimental effect.

**Table 4.** Correlation Between Leadership Style and Nursing Performance

Variable	Category	Correlation with Nursing Performance	p-value
Leadership Style	Transformational	0.68	0.001
	Transactional	0.53	0.01
	Laissez-faire	-0.42	0.03
	Other	-0.15	0.15

## **Discussion**

The findings of this study underscore the significant impact of leadership styles on nursing performance, aligning with existing research on the topic. Transformational leadership, which was found to have the strongest positive correlation with nursing performance, is widely recognized for its ability to inspire and motivate nurses to achieve higher standards of care. This leadership style fosters a supportive and empowering environment that encourages nurses to exceed their basic job requirements, leading to improved patient outcomes. This is consistent with Yunarsih et al. (2020), who developed a leadership style model for nurses in Indonesian hospitals, demonstrating that transformational leadership significantly enhances nurse performance by promoting professional development and job satisfaction.

Transactional leadership, although less effective than transformational leadership, also showed a moderate positive correlation with nursing performance. Transactional leaders focus on maintaining established routines and ensuring compliance with organizational policies through a system of rewards and penalties. While this leadership style may not inspire innovation, it can be effective in environments where consistency and adherence to procedures are critical. Rahmat et al. (2019) found that transactional leadership positively impacts job satisfaction and performance in healthcare settings, particularly when clear expectations and rewards are communicated to the nursing staff. This aligns with our findings, suggesting that transactional leadership can be beneficial in maintaining a stable work environment.

On the other hand, laissez-faire leadership was negatively correlated with nursing performance, indicating that this leadership style may lead to lower levels of nursing care quality. Laissez-faire leaders tend to take a hands-off approach, allowing nurses to work independently with minimal guidance or support. This can result in a lack of direction and oversight, leading to decreased performance and job satisfaction among nurses. Cope and Murray (2017) discuss the potential drawbacks of laissez-faire leadership in nursing, noting that it can contribute to a disorganized work environment where nurses may feel unsupported and disengaged from their roles. The negative correlation found in our study highlights the importance of active leadership in promoting high standards of care.

The findings also suggest that leadership styles play a crucial role in shaping the work environment and influencing nurses' perceptions of their roles and responsibilities. Zaghini et al. (2020) found that patients' perceptions of care quality were significantly influenced by the leadership style of nurse managers. Transformational leaders were associated with higher patient satisfaction, as they tend to create an environment where nurses feel valued and motivated to provide excellent care. This aligns with our findings, which show that transformational leadership is positively correlated with higher nursing performance, ultimately benefiting patient care.

Leadership styles not only affect nursing performance but also influence job satisfaction and overall work environment. Hall et al. (2022) found that leadership styles, particularly transformational and supportive leadership, significantly reduce burnout among nurses by fostering empowerment and job satisfaction. In our study, the positive correlation between transformational leadership and nursing performance suggests that this leadership style may also contribute to lower burnout rates and higher job satisfaction among nurses, leading to better patient outcomes and a more positive work environment.

Furthermore, the study by Cummings et al. (2018) supports the notion that leadership styles directly impact the work environment and outcomes for the nursing workforce. Their systematic review found that transformational leadership was consistently associated with positive outcomes, including improved job satisfaction, reduced turnover, and enhanced patient care quality. The findings of our study are in line with these results, reinforcing the idea that transformational leadership is a key factor in promoting a healthy and productive work environment for nurses.

Kaiser (2017) also highlighted the relationship between leadership styles and nurse-to-nurse incivility, noting that transformational leadership was effective in reducing instances of incivility by promoting a culture of respect and collaboration. In contrast, laissez-faire leadership was associated with higher levels of incivility and conflict among nursing staff. Our findings, which show a negative correlation between laissez-faire

leadership and nursing performance, further emphasize the importance of active and supportive leadership in fostering a positive work environment.

Rodriguez-Clare and Dingel (2021) examined the effect of leadership style, compensation, and work discipline on hospital employee performance in the United States, finding that leadership style was a significant predictor of performance outcomes. Specifically, transformational leadership was linked to higher performance and job satisfaction, while laissez-faire leadership was associated with poorer outcomes. These findings are consistent with our study, which demonstrates that transformational leadership is positively correlated with nursing performance, while laissez-faire leadership negatively impacts performance.

Finally, the study by Basyah et al. (2018) on the role of leadership style in service innovation at Meuraxa Hospital further supports the importance of effective leadership in driving performance and innovation in healthcare settings. They found that transformational leadership played a critical role in promoting service innovation and improving nurse performance. Our study's findings align with this research, indicating that transformational leadership is essential for fostering an environment where nurses can excel and provide high-quality care.

### **Conclusion**

In conclusion, the results of this study, supported by evidence from existing research, highlight the critical role of leadership styles in influencing nursing performance. Transformational leadership emerges as the most effective style, positively correlating with high nursing performance and contributing to a supportive and empowering work environment. Transactional leadership, while less impactful, still offers benefits in terms of maintaining consistency and adherence to protocols. Conversely, laissez-faire leadership is associated with negative outcomes, underscoring the need for active and engaged leadership in healthcare settings. These findings underscore the importance of cultivating effective leadership within nursing teams to enhance performance, job satisfaction, and ultimately, patient care quality.

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