

Nurses' Perceptions of Clinical Leadership and its Impact on Team Performance

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ABSTRACT

Background: Clinical leadership effectively influences the performance of nursing teams, improving patient outcomes. Clinical nurse leaders inspire nurses through their commitment to healthcare organizations. **Objective:** This study aimed to explore nurses' perceptions of clinical leadership and its impact on team performance at King Abdullah bin Abdulaziz University Hospital, and to identify key leadership behaviors and demographic factors influencing these perceptions. **Method:** A cross-sectional survey was conducted between August and September 2025 using a self-administered questionnaire distributed via Google Forms. The instrument consisted of 31 items divided into four domains: demographics, perceptions of clinical leadership, clinical leadership practices, and team performance. A convenience sample of 242 nurses was selected, and data were analyzed using descriptive statistics, chi-square tests, and multivariate linear regression. **Results:** Nurses reported significantly higher overall perceptions of clinical leadership (4.19 ± 1.05) and leadership practices (4.22 ± 0.94), as well as positive ratings of team performance (4.18 ± 1.05). The highest-rated behaviors included proactive problem-solving, providing constructive feedback, and fostering communication. Gender and educational qualification were significantly associated with leadership and performance scores ($p < 0.05$), with male nurses and those with Master degrees scoring higher. Perceptions of institutional support for nurse leaders were relatively low, indicating room for improvement. **Conclusion:** Clinical leadership is highly valued among nurses and is closely linked to behaviors that enhance team effectiveness. However, integrating evidence-based training, mentoring, and supportive policies can enhance clinical leadership capabilities, in line with the goals of Vision 2030, and achieve high-quality nursing care in complex healthcare settings.

Keywords Clinical Leadership, Nursing, Team Performance, Saudi Arabia, Vision 2030

INTRODUCTION

Global health systems strive for continuous improvement of healthcare services to address the accelerating challenges facing healthcare. Nursing is the first line of defense in healthcare systems, requiring effective leadership of nursing teams [1]. Effective leadership in nursing is essential for providing high-quality patient care and ensuring the operational efficiency of nursing teams [2]. Leadership spans multiple domains, particularly in nursing. Clinical leadership is important because of its pivotal role in promoting collaboration among nurses and making evidence-based clinical decisions, which positively impact patient outcomes [3]. Furthermore, clinical leadership is not limited to administrative positions; it extends to the practice and attitudes within nurses' practices, as well as the ability to influence, guide, and support colleagues to deliver safe healthcare that meets patients' needs [3, 4]. Globally, healthcare systems face several challenges, including disease outbreaks, a shortage of nursing staff, and the increasing complexity of patient needs [5]. In Saudi Arabia, the challenges facing the healthcare system are increasing, and as the country undergoes a radical transformation in line with Vision 2030, there is an increasing focus on strengthening clinical leadership among nurses to improve team-based care, enhance performance, and respond effectively to patient needs [6]. Many studies point to the importance of clinical leadership and its effective role in nursing team performance [7-9]. However, these studies remain limited in the Kingdom of Saudi Arabia. While most studies have focused on transformational and transactional leadership, there is an urgent need to understand these dynamics from a local perspective [3]. A recent study conducted in Saudi public

hospitals revealed a positive association between transformational leadership and nurse engagement, highlighting the potential impact of clinical leadership style on nursing team performance [10]. Therefore, understanding nurses' perceptions of clinical leadership reveals essential insights into the facilitators and barriers to effective nursing team performance, job satisfaction, communication, and patient-centered care. Since nurses constitute the largest segment of the healthcare workforce in Saudi Arabia, their engagement and attitudes toward clinical leadership can enhance or hinder collaborative care models [11]. Furthermore, identifying the leadership behaviors that nurses value and respond to can inform professional development programs and leadership training initiatives across Saudi healthcare organizations [12]. Therefore, this study aims to explore nurses' perceptions of clinical leadership and its impact on team performance at King Abdullah bin Abdulaziz University Hospital. The study will also contribute to enriching knowledge about clinical leadership and provide practical recommendations for developing leadership, improving performance, and enhancing organizational culture in the Saudi healthcare system.

MATERIALS AND METHODS

Study Design

This study adopted a cross-sectional design to explore nurses' perceptions of clinical leadership and its impact on team performance at King Abdullah bin Abdulaziz University Hospital. Data were collected

through an online survey distributed using Google Forms between August and September 2025.

Study Participants and Sampling

The general population of the study was nurses working in the Kingdom of Saudi Arabia. The target population was nurses at King Abdullah bin Abdulaziz University Hospital. The study followed a direct recruitment strategy to select nurse participants. Inclusion criteria included all nurses at King Abdullah bin Abdulaziz University Hospital and voluntary consent to complete the questionnaire. This study used non-randomly convenience sampling. By calculating an estimated population of 495 nurses, a confidence level of 95%, and a margin of error of 5%, the sample size was determined to be 220 nurses. In addition, we added 10% to compensate for non-responding; the final sample size was 242 patients.

Questionnaire

A self-administered questionnaire was developed to explore nurses' perceptions of clinical leadership and its impact on team performance at King Abdullah bin Abdulaziz University Hospital. The questionnaire consisted of 31 questions divided into four sections: demographic information (age, gender, Nationality, education level, and years of experience), Perceptions of Clinical Leadership (8 questions), Clinical Leadership Practices (10 questions), Team Performance (7 questions). Several studies about clinical leadership among nurses used modified versions of questionnaire [3, 13, 14] construct validity was ensured using exploratory factor analysis or triangulation of validation. Cronbach's alpha measures the homogeneity in the survey, and it was reported to be 0.88, indicating acceptable internal consistency. questions were measured on a 5-point Likert scale in the original scale. The survey was distributed online via Google Forms, ensuring anonymity and voluntary participation. Responses were limited to one per participant to maintain data integrity.

Data Analysis

Statistical analysis was carried out using the Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, USA), version 26. Frequency and percentages were obtained for the categorical variables, while mean and standard deviation (SD) were calculated for the scale variables. The chi-square test was used to assess the association demographic factors and Perceptions of Clinical Leadership. A p-value of <0.05 was considered statistically significant.

Ethical Consideration

The study received ethical approval from the Research Ethics Committee at KAAUH, registration number [Insert Registration Number].

The purpose and objectives of the study were clearly explained to participants in an introductory letter at the beginning of the survey. The letter emphasized that participation was completely voluntary, and that responses would remain anonymous. Written informed consent was obtained electronically prior to survey completion.

Results

As shown in (Table 1), a total of 242 participants responded to the questionnaire. (16.1%) of the participants were males, and (83.9%) were females. Regarding to age groups, (26.7%) of respondents were between 20–24 years, followed by (29.2%) between 25–29 years, (22.1%) between 30–34 years, and 9.9% were More than 40 year, and the mean years of work experience was 9.84 years (SD = 6.16). Among the participants (49.4%) Saudi and (50.6%) non-Saudi. The educational level of approximately (68.7%) of participants had bachelor's degree, (31.3%).

Table 1: Sociodemographic Traits of Participants (N=422)

Variable		N	%
Your Gender	male	39	16.1%
	Female	203	83.9%
Your Age	20-24 years	65	26.7%
	25-29 years	71	29.2%
	30-34 years	53	22.1%
	35-39 years	29	12.1%
	More than 40 years	24	9.9%
Nationality	Saudi	120	49.4%
	non-Saudi	122	50.6%
Highest Qualification Achieved	Bachelor	166	68.7%
	Master's degree	51	31.3%
Years of Experience	Less than 5 years	54	22.2%
	5-9 years	84	34.6%
	10-14 year	51	21.1%
	15-20 years	32	13.2%
	More than 20 years	22	8.9%

Table 2: Mean, Standard Deviation, and Chi-Square for Nurses Perceptions of Clinical Leadership.

Paragraph	Mean	Std. Deviation	Chi-Square	P-Value
1 Clinical leadership contributes to achieving excellence and improving healthcare efficiency.	4.21	0.87	404.51	.000
2 Clinical leadership is limited to administrative roles.	3.88	1.36	171.67	.000
3 Good clinical leadership contributes to improving patient outcomes.	4.24	0.95	274.66	.000
4 Nurses can exercise clinical leadership independently.	4.17	1.04	251.22	.000
5 Clinical leadership contributes to enhancing communication among nurses.	4.32	0.93	334.66	.000
6 Clinical leadership facilitates decision-making within nursing departments.	4.06	1.11	200.71	.000
7 Healthcare institutions need nursing leadership training programs.	4.24	1.05	307.72	.000
8 There is a lack of support for nurses as clinical leaders.	3.72	1.42	116.87	.000
The Average	4.19	1.05		

Table (2) shows the average of the statements on Nurses' perceptions of Clinical Leadership (4.19 ± 1.05). This indicates that nurses have a high level of perceptions about the importance and the role of Clinical Leadership in nursing practice. The highest means (4.21 ± 0.87) was recorded for the statement "Clinical leadership contributes to enhancing communication among nurses." The statistical significance level for the chi-square coefficient was 0.000, which is less than 0.05, indicating differences in favor of the "strongly agree" response, reflecting nurses' perceptions about the Clinical

Leadership. In addition, the results indicate that nurses are aware of the importance of Clinical leadership contributes to improving patient outcomes, with mean of (4.24 ± 0.95), and Healthcare institutions need nursing leadership training programs (4.24 ± 1.05). However, the statement "There is a lack of support for nurses as clinical leaders." had a relatively low mean of 3.72 with a high standard deviation (1.42), indicating a variance in opinions about the effectiveness of these policies. Overall, the results show nurses' high perceptions of clinical leadership and its importance in the workplace.

Table 3: Mean, Standard Deviation, and Chi-Square for Nurses' Clinical Leadership Practices.

	Paragraph	Mean	Std. Deviation	Chi-Square	P-Value
1	I guide the team when dealing with critical clinical situations.	4.11	1.06	218.41	.000
2	I participate in the evaluation and development of care plans.	4.16	1.08	261.04	.000
3	I work to reduce errors by monitoring daily operations.	4.26	0.91	288.41	.000
4	I motivate colleagues to make suggestions for improving care.	4.31	0.89	314.3	.000
5	I encourage a culture of learning and development within the team.	4.18	1.05	258.62	.000
6	I take the initiative to resolve clinical problems.	4.34	0.9	341.31	.000
7	I work to build trust among colleagues.	4.16	1.05	247.93	.000
8	I provide constructive feedback to colleagues when needed.	4.44	0.85	424.51	.000
9	I ensure the application of quality and safety standards.	4.23	0.96	274.45	.000
10	I demonstrate calm and steadfastness under pressure.	4.21	0.72	434.51	.000
	The Average	4.22	0.94		

Table (3) shows the average of the statements on Nurses' Clinical Leadership Practices (4.22 ± 0.94). This indicates the importance of clinical leadership practices in nursing. The highest means (4.34 ± 0.9) was recorded for the statement "I take the initiative to resolve clinical problems." The statistical significance level for the chi-square coefficient was 0.000, which is less than 0.05, indicating differences in

favor of the "strongly agree" response, reflecting importance of clinical leadership practices in nursing. This trend was repeated in most items on clinical leadership practices, indicating a positive evaluation by nurses. All items also showed high Chi-Square values and statistical significance ($p < 0.001$), indicating that the results are statistically significant.

Table 4: Mean, Standard Deviation, and Chi-Square Nurses' Perceptions of Team Performance

	Paragraph	Mean	Std. Deviation	Chi-Square	P-Value
1	Nursing teams operate within a clearly defined framework to achieve goals.	4.26	0.91	288.41	.000
2	Duties are distributed fairly and clearly among nurses.	4.18	1.05	258.62	.000
3	There is effective collaboration between nurses and nursing teams.	3.75	1.46	149.05	.000
4	Nurses work as a team and receive adequate support.	4.16	1.05	247.93	.000
5	Nursing teams are able to handle sudden changes.	4.24	0.95	274.66	.000
6	Feedback is received positively within the team.	3.89	1.11	200.71	.000
7	Different opinions are respected when making decisions.	4.31	0.89	314.30	.000
	The Average	4.18	1.05		

Table (4) shows the average of the statements on Nurses' Nurses' Perceptions of Team Performance (4.18 ± 1.05). This indicates a generally positive assessment of nurses' performance as a team. The highest means (4.31 ± 0.89) was recorded for the statement "Different opinions are respected when making decisions." The statistical significance level for the chi-square coefficient was 0.000, which is less than 0.05, indicating differences in favor of the "strongly agree" response, reflecting The Importance of Respecting Opinions to

Enhance Team Performance. In addition, the results indicate that Nursing teams operate within a clearly defined framework to achieve goals, with mean of (4.26 ± 0.91). The lowest mean score was for "There is effective collaboration between nurses and nursing teams" (3.75 ± 1.46), indicating variability in participants' perceptions of collaboration. All items also showed high Chi-Square values and statistical significance ($p < 0.001$), indicating that the results are statistically significant.

Table 5: (A) Multivariate Linear Regression Analysis of Clinical Leadership and Team Performance.

	Mean	B [95% CI]	P Value
Gender			
Male (Ref)	4.83 (1.2)		
Female	4.75 (0.98)	-0.31[-0.94 - 0.17]	0.001*
Age			
20–24 years (Ref)	4.9(1.9)		
25–29 years	4.8(1.9)	0.03[-0.63- -0.69]	0.922
30–34 years	4.8(1.7)	-0.18[-1.13- 0.77]	0.708
35–39 years	3.7(2.1)	-1.20[-2.5- 0.05]	0.059
≥ 40 years	3.6(1.9)	-1.02[-2.9- 0.67]	0.180
Experience			
Saudi (Ref)	4.76 (0.93)		
Non-Saudi	4.72 (0.94)	-0.04 [-0.18 – 0.10]	0.580
Experience			
Less than 5 years (Ref)	4.9(1.8)		
5–9 years	5.1(2.3)	-0.07[-0.71- 0.57]	0.832

Table 5: (b) Multivariate Linear Regression Analysis of Clinical Leadership and Team Performance.

	Mean	β [95% CI]	P Value
10–14 years	4.7(2.4)	-0.33[-1.17- 0.51]	0.440
15–20 years	4.3(1.9)	-0.21[-1.43- 0.42]	0.421
More than 20 years	4.66 (0.98)	-0.02 [-0.25 – 0.21]	0.880
Qualification			
Diploma (Ref)	4.3(2.1)		
Bachelor	4.8(1.6)	0.41[-0.29- 1.11]	0.252
Master's degree	5.8(2.5)	1.33[-0.62- 3.28]	0.180
PhD	6.1(1.9)	1.68[1.09- 2.26]	0.000*

Ref: The Reference

*Significance Difference ≤ 0.05

Table (6) shows the male participants reported slightly higher mean scores (4.83 ± 1.20) compared to females (4.75 ± 0.98 , $\beta = -0.31$, 95% CI: -0.94 to -0.17 , $p = 0.001$), with the difference reaching statistical significance. Age showed no statistically significant differences, although participants aged 35–39 years had lower mean scores (3.7 ± 2.1 , $p = 0.059$) compared to the youngest age group (20–24 years). Nationality and years of experience did not demonstrate significant associations with scores. Regarding educational qualification, nurses with a PhD had significantly higher scores (6.1 ± 1.9 , $\beta = 1.68$, 95% CI: 1.09 to 2.26 , $p < 0.001$) compared to diploma holders, while other qualification categories showed no significant differences. These results highlight that gender and educational qualification are the primary sociodemographic factors influencing clinical leadership and team performance scores, suggesting the need for targeted development programs to support female nurses and those with lower academic qualifications.

Discussion

The current study first explored nurses' perceptions of clinical leadership, its practices, and their perceptions of team performance. The current findings indicate a high level of agreement among participating nurses. The study also explores nurses' perceptions of clinical leadership and its impact on team performance at King Abdullah bin Abdulaziz University Hospital, enriches knowledge about clinical leadership, and provides practical recommendations for leadership development, performance improvement, and enhancing organizational culture in the Saudi healthcare system, thus compensating for the shortcomings of previous studies. According to the current findings, nurses at King Abdullah bin Abdulaziz University Hospital have high levels of perceptions of clinical leadership, clinical leadership practices, and team performance, with an average score of (4.1) across most questionnaire items. This is consistent with the majority of previous studies that have emphasized the importance of clinical leadership in nursing, its role in improving communication and collaboration among nursing teams, and its effective impact on team performance, leading to improved patient outcomes [9, 14]. Mrayyan [15] suggests that the most important traits of clinical leadership in nursing are communication, clinical competence, and role modeling. This is confirmed by the results of the current study, which demonstrated high levels of agreement among the study sample regarding problem-solving, providing constructive feedback, and maintaining composure under pressure. Furthermore, clinical leadership impacts nursing team performance by improving communication and patient outcomes [16]. The study results also highlight nurses' positive perceptions of leadership's role in promoting inter-collegiate communication and clinical decision-making, which is essential for improving team performance and patient care [3]. However, the relatively low score for "lack of support for nurses as

clinical leaders" indicates a discrepancy in institutional support, reflecting the challenges observed globally in supportive environments that actively nurture nurse leadership potential [17]. This gap points to the need for organizational interventions and reforms, as [9, 17] have emphasized the importance of supportive leadership cultures and resources for improving team performance, nursing practices, and the sustainability of leadership behaviors. Additionally, the results of a multivariate linear regression analysis of clinical leadership and team performance indicate that gender and educational qualifications significantly influence clinical leadership and team performance, with male nurses and those with doctoral degrees recording higher means. This reveals that perceptions of leadership are primarily shaped by professional confidence and educational experience, confirming that higher academic qualifications are associated with increased self-efficacy and leadership engagement. The relatively low scores among male and female nurses due to gender highlight the importance of designing and implementing leadership development initiatives that address gender-related barriers and promote equal access to leadership [12]. Furthermore, while years of experience and nationality did not yield statistically significant differences, the consistently high scores across these categories suggest that perceptions of clinical leadership are robust across diverse backgrounds when an organization's culture supports collaboration and shared governance. The results of the current study are consistent with those of [1, 2] regarding the importance of clinical leadership that focuses on decision-making, facilitating communication, problem-solving, and adapting to sudden changes, rather than being limited to administrative aspects. Interventions should be multifaceted, integrating essential cognitive, interpersonal, and clinical skills, as recommended by systematic reviews [9]. Simulation-based training, mentorship programs, and structured leadership approaches can help address disparities in institutional support while promoting high-impact behaviors, such as constructive feedback and trust-building. The findings of the current study are consistent with the broader evidence base that enhancing clinical leadership capabilities can lead to tangible gains in team performance, job satisfaction, and improved patient outcomes. Therefore, enhancing nursing clinical leadership is a strategic priority for developing the healthcare sector in the Kingdom of Saudi Arabia, in line with Vision 2030, with a focus on professional development, inclusive leadership, and sustainable cultural change to embed clinical leadership behaviors in nursing practice.

Conclusion

The current study explores nurses' perceptions and practices of clinical leadership and its impact on team performance. The current findings indicate high levels of nurses' perceptions of clinical leadership at King Abdullah bin Abdulaziz University Hospital. The study also explores nurses' perceptions of clinical leadership and its

impact on team performance, enriches knowledge about clinical leadership, and provides practical recommendations for developing leadership, improving performance, and enhancing organizational culture, thereby addressing the shortcomings of previous studies. This is consistent with most previous studies that have emphasized the importance of clinical leadership in nursing, its role in improving

communication and collaboration among nursing teams, and its effective impact on team performance, making it essential for achieving the healthcare goals outlined in Vision 2030. Further qualitative research is needed to confirm these findings and develop effective nursing management strategies in the Kingdom of Saudi Arabia.

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