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Investigating The Impact Of Strategic Leadership On Patient Satisfaction In Riyadh Health Clusters

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Abstract

This study examined the impact of strategic leadership on patient satisfaction within the Riyadh Health Clusters in Saudi Arabia. ***Design:*** *Employing a quantitative, cross-sectional design, we surveyed 384 healthcare professionals including nurses, physicians, administrators, and technical staff; using a stratified random sampling approach.* ***Methods:*** *A structured questionnaire captured demographic data and measured perceptions of strategic leadership and patient satisfaction.* ***Results:*** *Respondents were predominantly male (68.2%), aged 26–35 years (78.2%), and held at least a bachelor's degree (45.0%). Nurses comprised 78.7% of the sample, and most had 4–5 years of experience (49.3%). The regression analysis yielded an extremely weak correlation ($R = 0.032$) and explained only 0.1% of the variance in patient satisfaction ($R^2 = 0.001$). The model was not significant ($F = 0.40$, $p = 0.528$), nor was the standardized beta for strategic leadership ($\beta = 0.032$, $t = 0.632$, $p = 0.528$). Practically, a one-unit increase in strategic leadership corresponded to a negligible 0.0197-unit increase in patient satisfaction.* ***Conclusions:*** *Contrary to findings from other contexts, strategic leadership as measured here, does not appear to influence patient satisfaction in Riyadh's health clusters. This null result suggests the need to investigate potential mediators (e.g., staff engagement, process quality), contextual factors, and longitudinal effects to fully understand leadership's role in patient-centered outcomes.*

Keywords: *Strategic Leadership; Patient Satisfaction; Riyadh Health Clusters; Cross-Sectional Study; Linear Regression Analysis; Healthcare Management*

INTRODUCTION

The delivery of high-quality healthcare stands as a paramount concern within the global landscape, with patient satisfaction increasingly recognized as a central tenet in evaluating this quality. Patient satisfaction, a subjective assessment of whether a patient's expectations regarding a health encounter have been fulfilled, plays a pivotal role in various critical aspects of healthcare. These include influencing clinical outcomes, fostering patient loyalty, and mitigating the potential for medical malpractice claims (Wilson & Rajan, 2022; Stelfox, Gandhi, Orav & Gustafson, 2005). In contemporary healthcare, the significance of patient satisfaction has amplified due to a confluence of factors, notably the escalating expectations of patients and a discernible shift towards models of care that are centered on the patient. The proliferation of information via the internet and the increasing awareness of healthcare options have empowered patients, leading to a greater demand for services that not only address their medical needs but also align with their personal preferences and values.

Within the context of Saudi Arabia, a nation undergoing significant healthcare transformation as part of its ambitious Vision 2030 initiative, the enhancement of healthcare quality and patient experience has emerged as a key priority. Vision 2030 outlines a comprehensive strategy to restructure the health sector, aiming to establish an integrated and effective ecosystem that prioritizes the health of individuals and society. A pivotal element of this transformation is the establishment of Riyadh Health Clusters, a strategic initiative designed to elevate the delivery and efficiency of healthcare services within the Riyadh region. These health clusters represent an integrated network of healthcare providers, encompassing primary care

centers, general hospitals, and specialized services, all operating under a unified administrative structure with the overarching goal of providing holistic and preventive care to a defined population (U.S. Department of Commerce, 2023; Alasiri & Mohammed,, 2022). The Riyadh First Health Cluster, for instance, aims to provide healthcare services to over 3.9 million beneficiaries through an extensive network of facilities. This national emphasis on healthcare improvement, coupled with the creation of integrated health clusters, underscores the timeliness and relevance of investigating the factors that influence patient satisfaction within this evolving system.

Strategic leadership, defined as the process of shaping the future of a healthcare organization by articulating a clear vision, mission, and long-term objectives, is paramount in navigating the intricate and ever-changing healthcare landscape. This landscape is characterized by regulatory shifts, rapid technological advancements, and the continuous evolution of patient needs and expectations. Effective strategic leadership is not confined to merely setting organizational goals; it extends to proactively shaping the organizational culture and operational processes in ways that directly impact how patients perceive their care journey and, ultimately, their satisfaction. By making informed decisions regarding resource allocation, technology adoption, and workforce management, strategic leaders establish the foundation for delivering high-quality patient care and achieving optimal patient outcomes. The ability of strategic leadership to influence crucial aspects of healthcare delivery, such as communication effectiveness, responsiveness to patient needs, and the overall experience of care, suggests a significant potential link between leadership practices and patient satisfaction within the Riyadh Health Clusters (Awa et al., 2025; Wong & Cummings, 2007).

Strategic leadership in healthcare must be understood through multiple theoretical lenses to capture how executive decisions translate into patient experiences. Upper Echelons Theory argues that top executives' backgrounds, values, and cognitive frames drive strategic choices and organizational outcomes (Hambrick & Mason, 1984). Path–Goal Theory posits that effective leaders clarify goal achievement paths, remove obstacles, and tailor their behaviors (directive, supportive, participative, achievement oriented) to followers' needs, thereby boosting motivation and performance (House, 1971). In healthcare settings, nurse managers employing Path–Goal behaviors have been shown to enhance staff satisfaction, reduce turnover, and improve patient safety outcomes—factors closely linked to patient satisfaction (Ngabonzima et al., 2020). LMX Theory focuses on the quality of dyadic relationships between leaders and subordinates, where high quality exchanges foster trust, commitment, and discretionary effort (Zheng et al., 2023; Awa et al., 2025). In hospital units, strong LMX relationships correlate with better teamwork and communication, translating into more attentive and personalized patient care and higher satisfaction scores (Kim & Yi, 2018; Zheng et al., 2023).

Recent empirical research reinforces these theoretical perspectives. For example, transformational, emotionally intelligent, and individual consideration leadership styles have all been associated with higher levels of perceived physical comfort and emotional support delivered to patients (Awa et al., 2025). Transformational leadership, in particular, is linked to establishing a culture of patient safety, reducing staff turnover, and encouraging additional effort and satisfaction among healthcare teams (Wong & Cummings, 2007). Similarly, high-quality leader-member exchange (LMX) relationships have been found to foster trust, enhance moral sensitivity, and improve ethical decision-making among nurses, all of which contribute to better patient care outcomes and satisfaction. Conversely, poor LMX relationships are associated with increased moral distress, reduced job satisfaction, and lower quality of patient care (Zheng et al., 2023; Kim & Yi, 2018).

The expectancy-disconfirmation theory posits that patient satisfaction is largely determined by the congruence between a patient's expectations prior to receiving service and their perceptions of the actual

service experience. Satisfaction arises when the service meets or exceeds these expectations, while dissatisfaction occurs when the service falls short. This theory has significant implications for healthcare, suggesting that managing patient expectations through clear communication and consistently delivering services that meet or surpass those expectations are crucial for achieving high levels of satisfaction. Strategic leadership within the Riyadh Health Clusters can play a vital role in shaping patient expectations and ensuring service delivery aligns with these expectations (Batbaatar et al., 2017; Mormer, 2012; Kenten et al., 2010).

Another influential framework for understanding patient satisfaction is the Service Quality Model, often referred to as SERVQUAL. This model identifies five key dimensions of service quality that significantly impact customer satisfaction: tangibles (physical appearance), reliability (dependability and accuracy), responsiveness (willingness to help), assurance (competence and courtesy), and empathy (caring and individualized attention). The SERVQUAL model provides a structured approach for assessing patient perceptions of various aspects of healthcare service delivery, ranging from the cleanliness of facilities to the attentiveness of healthcare professionals. By utilizing this framework, strategic leaders in the Riyadh Health Clusters can pinpoint specific areas for improvement in service quality that are most likely to enhance patient satisfaction (Batbaatar et al., 2017; Zheng eat al., 2025).

The chosen leadership styles within the Riyadh Health Clusters will play a pivotal role in shaping the overall organizational culture. Effective leadership has the power to instill the values, beliefs, and perceptions that define how an organization operates. A positive organizational culture, cultivated through effective leadership, has been shown to be directly linked to positive patient outcomes and increased satisfaction with the healthcare experience (Radwan et al., 2023). Furthermore, leadership styles exert a significant influence on employee engagement, job satisfaction, and staff retention, all of which are critical factors in determining the quality of healthcare services delivered. Empowering leadership approaches, for instance, can contribute to greater expertise among nursing staff, increased stability within teams, and reduced employee turnover, ultimately leading to better patient outcomes (Boshra et al., 2023). Therefore, the leadership exhibited within the Riyadh Health Clusters will be instrumental in establishing a culture that places a high priority on patient-centered care and the continuous improvement of quality, which will ultimately have a significant impact on the level of patient satisfaction achieved.

Extensive global research has explored the relationship between leadership styles and patient satisfaction in healthcare. These studies have generally found significant positive correlations between effective leadership styles, such as transformational and participative leadership, and higher levels of patient satisfaction. For example, research has indicated that leader support, characterized by behaviors that demonstrate concern for employees and actively seek their input in decision-making, is associated with improved patient satisfaction, possibly through its positive impact on staff experience and the reduction of work-related stress. Moreover, preliminary evidence suggests that the implementation of leadership development programs can contribute to improvements in patient experience outcomes across various healthcare organizations (Wong & Cummings, 2007; Boshra et al., 2025). This body of global research consistently indicates a positive association between effective leadership and enhanced patient satisfaction, underscoring the importance of leadership as a key driver in shaping the patient experience.

Studies conducted within the Middle East and specifically in Saudi Arabia provide further insights into this relationship within the regional context. Research in Saudi Arabian public hospitals revealed that the passive-avoidant leadership style among nurse managers was the most prevalent and was associated with the lowest levels of patient satisfaction, while transactional leadership was linked to higher satisfaction scores. Another study conducted in Saudi Arabia emphasized the critical role of communication quality and

overall satisfaction in driving patient loyalty. Research in neighboring Jordan has also highlighted the significance of strategic management practices in enhancing hospital performance and the quality of patient care provided (Boshra et al., 2025; Abu, 2023). These findings from Saudi Arabia specifically indicate that leadership style has a substantial impact on patient satisfaction within the local healthcare environment, with certain leadership approaches proving more effective than others. Furthermore, the emphasis on the importance of communication in the Saudi context suggests that leadership strategies that prioritize and facilitate effective communication between healthcare providers and their patients will be particularly crucial for enhancing patient satisfaction within the Riyadh Health Clusters.

The impact of leadership on patient satisfaction is often mediated by other crucial organizational factors, such as communication processes and the overall quality of care. For instance, research has identified administrative and medical quality as potential mediating factors in the relationship between participative leadership and patient satisfaction (Radwan et al., 2023). Leader support can positively influence the extent to which staff feel they have input into decisions affecting their work, which can lead to a reduction in work pressure and ultimately contribute to improved patient satisfaction (Radwan et al., 2023). Moreover, effective communication is consistently identified across numerous studies as a vital factor influencing both patient satisfaction and patient loyalty (Radwan et al., 2023; Al-Abri & Al-Balushi, 2014). This suggests that the effect of leadership on patient satisfaction is likely indirect, operating through its influence on key organizational elements such as the effectiveness of communication channels and the overall quality of administrative and medical services provided.

While existing research has established a general link between leadership and patient satisfaction in healthcare, and some studies have specifically examined nursing leadership styles and patient satisfaction in Saudi Arabia (Radwan et al., 2023; Boshra & Aseeri, 2025), there remains a notable gap in the literature concerning the specific impact of strategic leadership on patient satisfaction within the unique context of the newly formed Riyadh Health Clusters. Despite the significant healthcare transformation underway in Saudi Arabia and the establishment of these health clusters as a central component, there is a lack of focused research investigating how leadership at the strategic organizational level within these clusters influences the satisfaction levels of patients. Furthermore, much of the existing research on patient satisfaction in Saudi Arabia tends to focus on primary healthcare settings or individual hospitals, with less attention paid to the integrated health cluster model that is now being implemented. This absence of specific research highlights a critical need to understand the dynamics between strategic leadership and patient satisfaction within the Riyadh Health Clusters. The unique organizational structure and operational characteristics of these health clusters, arising from the broader healthcare transformation initiatives, warrant a dedicated investigation into the role that strategic leadership plays in shaping the patient experience and satisfaction.

METHODOLOGY

Research Design

This study employs a quantitative, cross-sectional research design to examine the impact of strategic leadership on patient satisfaction within Riyadh Health Clusters. A quantitative approach was selected to capture statistically significant trends and relationships among the variables, thereby providing generalizable insights that can inform healthcare policy and practice. The design facilitates the measurement of key constructs like nurse staffing, empowerment initiatives, and patient satisfaction, using standardized instruments, ensuring both objectivity and replicability. Given the transformative role of the Riyadh Health Clusters in Saudi Arabia's healthcare landscape, this setting offers a pertinent context for investigating the nuanced interplay between staffing adequacy and employee empowerment.

Population and Sampling Techniques

The target population for this research comprises healthcare professionals working within Riyadh Health Clusters, with a specific focus on nurses, as well as healthcare administrators and managers who influence staffing policies. Demographic data including age, gender, education level, professional role, years of experience, and cluster affiliation were collected to develop a comprehensive participant profile and control for potential confounding variables. A stratified random sampling technique will be employed to ensure adequate representation from various clusters and professional roles, thereby enhancing the generalizability of the findings. The sample size was determined via power analysis to ensure sufficient statistical power for detecting significant relationships between strategic leadership and patient satisfaction across the clusters.

Variables and Measurement Instruments

In this study, the independent variables is strategic leadership while patient satisfaction serves as the dependent variable. The measurement instruments used in this study consist solely of a comprehensive questionnaire developed to capture the key constructs of interest. The questionnaire is divided into several sections. The first section collects demographic information, which is essential for describing the sample and controlling for potential confounding variables. Subsequent sections include scales that measure.

Data Analysis

Data collected from the survey were analyzed using the Statistical Package for the Social Sciences (SPSS) version 27. Descriptive statistics including means, standard deviations, and frequency distributions were computed to provide an initial overview of the dataset. Inferential statistical techniques, particularly linear regression analysis, was applied to test the hypothesized relationships between nurse-to-patient ratios, employee empowerment, and patient satisfaction. A significance level of 5% was used, corresponding to a 95% confidence interval, to determine whether observed associations are statistically significant.

Ethical Consideration

The study adhered to ethical guidelines, including obtaining informed consent from participants, ensuring confidentiality, and allowing voluntary participation. Participants were informed of their right to withdraw at any stage without penalty.

RESULTS

Table 1: Descriptive Analysis of Respondents Demographic Data

Variable	Category	Frequency	Percentage
Gender	Male	262	68.19%
	Female	122	31.81%
Total		384	100
Age Range	26-35	300	78.19%
	36-45	72	18.61%
	46 or greater	12	3.20%
Total		384	100

Highest Education Level	Bachelor's degree	173	45%
	Master's degree	130	33.79%
	PhD/Doctorate	62	16.21%
	Diploma	19	5 %
Total		384	100
Main Role	Nurse	302	78.65%
	Physician	23	5.91%
	Administration/ Leader	38	9.88%
	Technical	21	5.56%
Total		384	100
Years of Experience	1 year	19	4.94%
	2-3 years	137	35.60%
	4-5 years	189	49.34%
	6-7 years	39	10.12 %
Total		384	100
Health Cluster	Riyadh First Health Cluster	159	41.45%
	Riyadh second Health Cluster	116	30.21%
	Riyadh third Health Cluster	109	28.34%
Total		384	100

Source: Field Survey

The demographic analysis of respondents in this study provides valuable insights into the composition of healthcare professionals within Riyadh health clusters. The data reveals that the majority of respondents are male (68.19%), while females constitute 31.81% of the total sample. This indicates a gender disparity, suggesting that the healthcare workforce in this setting is predominantly male. In terms of age distribution, the largest proportion of respondents falls within the 26-35 age range (78.19%), followed by those aged 36-45 (18.61%), while only a small fraction (3.20%) are aged 46 or greater. This suggests that the workforce is relatively young, which may have implications for experience levels and workforce sustainability in the long term. Regarding education levels, most respondents hold a bachelor's degree (45.05%), while 33.79% possess a master's degree, and 16.21% have a PhD or doctorate. A smaller percentage (5%) have obtained only a diploma. This reflects a generally well-educated workforce, which may contribute to enhanced service delivery and patient care quality.

The main roles of respondents indicate that the majority are nurses (78.65%), followed by administrators or leaders (9.88%), physicians (5.91%), and technical staff (5.56%). This aligns with the typical composition of healthcare settings, where nurses form the backbone of patient care. The relatively low percentage of physicians suggests a possible shortage of doctors or a higher reliance on nursing staff in the clusters. Experience levels vary, with the largest proportion of respondents (49.34%) having 4-5 years of experience. A significant portion (35.60%) has 2-3 years of experience, while fewer have 6-7 years (10.12%) or just 1 year (4.94%). These figures highlight a predominantly mid-level workforce, which could impact training and retention strategies within the healthcare system. Finally, the distribution across Riyadh's health clusters shows that the largest portion of respondents (41.45%) belongs to the Riyadh First Health Cluster, followed by the Riyadh Second Health Cluster (30.21%) and the Riyadh Third Health Cluster (28.34%). The relatively even distribution indicates that all three clusters are well-represented in the study, ensuring a balanced perspective on healthcare practices and outcomes in Riyadh.

Test of Hypotheses

Hypothesis 1: Strategic leadership has a positive impact on patient satisfaction in Riyadh health clusters.

Table 2: Linear Regression Results: Impact of Strategic Leadership on Patient Satisfaction

Variables	R	R^2	F	Sig	Beta	T	Sig
Constant	0.032	0.001	.40	0.528			
Strategic Leadership					0.032	0.632	0.528

Predictors: (Constant): Strategic Leadership
Dependent variable: Patient Satisfaction

The results of the simple linear regression analysis indicate that Strategic Leadership has virtually no relationship with Patient Satisfaction in Riyadh health clusters. The model's correlation coefficient is extremely weak ($R = 0.032$), and it explains only 0.1% of the variance in patient satisfaction ($R^2 = 0.001$). Moreover, the overall regression is not statistically significant ($F= 0.40$, $p = 0.528$), and the standardized beta coefficient for Strategic Leadership is just 0.032 ($t = 0.632$, $p = 0.528$), indicating a negligible positive slope that does not reach the 5% significance threshold. In practical terms, a one-unit increase in the Strategic Leadership score is associated with only a 0.0197-unit increase in Patient Satisfaction, an effect so small and statistically non-significant that we must conclude there is no evidence to support the hypothesis that Strategic Leadership positively impacts Patient Satisfaction in these health clusters. Thus, the hypothesis is rejected.

DISCUSSION

In contrast to our findings showing a negligible and non-significant association between Strategic Leadership and Patient Satisfaction in Riyadh health clusters ($R = 0.032$, $p = 0.528$), a growing body of empirical research in diverse healthcare settings has documented meaningful positive linkages between leadership behaviors and patient-reported outcomes. For instance, an analysis of 123 public-sector hospitals in Pakistan found that participative leadership was significantly and positively correlated with patient satisfaction ($r = 0.39$, $p < 0.01$), operating both directly and indirectly through enhancements in administrative and medical quality (Asif, Jameel, Sahito, Hwang, Hussain & Manzoor, 2019). A comprehensive systematic review and meta-analysis of 21 studies by Restivo et.al (2022) similarly reported

small-to-moderate pooled effects of leadership interventions on healthcare performance and patient satisfaction, while noting substantial heterogeneity attributable to study design and context. Haerr, Aaronn. (2021) qualitative case studies in U.S. hospitals have underscored the efficacy of targeted strategic initiatives such as staff engagement campaigns, process standardization, and continuous feedback loops in elevating satisfaction scores, suggesting that leadership exerts its greatest influence via operational mechanisms rather than direct patient interactions. Complementing these findings, a university health-center study demonstrated that core service quality dimensions, tangibles, reliability, and responsiveness accounted for over 40% of the variance in patient satisfaction, highlighting process quality as a key mediator between leadership and outcomes (Yunus, Abdullah, Nurul & Huda, 2024). Large-scale organizational reports, including the NHS's multiyear analysis and a Spanish public-sector evaluation, further emphasized strong associations between staff experience variables (e.g., work pressure, perceptions of fairness) and patient satisfaction, indicating that staff-mediated factors often serve as critical conduits for leadership impact (Jeremy Dawson, 2018; Santos-Jaén, Martínez, Palacios-Manzano, & Grasso, 2022). Recent investigations in the United Arab Emirates have reinforced this perspective: although proactive patient rounding interventions produced higher mean satisfaction scores, the differences did not reach statistical significance, underscoring context-specific variability in leadership effects (Ruqaya, Fatma, Nabeel & Arnel Selgado, 2023). Analyses of service quality dimensions in Emirati hospitals similarly attributed satisfaction variance primarily to factors such as affordability and responsiveness rather than to strategic leadership per se (Sayani, Moonesar, Zakzak, & Elsholkamy, 2023). Broader reviews of UAE healthcare reforms highlight the pivotal role of international accreditation and institutional frameworks in driving quality improvements, suggesting that leadership constructs must operate within robust systemic infrastructures to influence patient outcomes (Alshamsi 2024). Moreover, evaluations of patient satisfaction instruments tailored to traditional Arabic populations have underscored the importance of culturally responsive leadership practices such as personalized communication and respect for social norms as determinants of satisfaction (Stephen, Sumayya, Tony &, Richard, 2003). Taken together, these contrasting findings imply that the null result in our Riyadh sample may reflect unique organizational cultures, measurement limitations, and the omission of key mediators (e.g., staff engagement, process quality) that attenuate the direct impact of strategic leadership on patient satisfaction.

CONCLUSION

This study investigated the impact of strategic leadership on patient satisfaction within the Riyadh Health Clusters in Saudi Arabia, surveying 384 healthcare professionals. The findings revealed an extremely weak correlation ($R = 0.032$) with strategic leadership explaining only 0.1% of the variance in patient satisfaction ($R^2 = 0.001$). Contrary to findings from other contexts, strategic leadership as measured here, does not appear to influence patient satisfaction in Riyadh's health clusters. This null result suggests the need to investigate potential mediators (e.g., staff engagement, process quality), contextual factors, and longitudinal effects to fully understand leadership's role in patient-centered outcomes.

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