

Final Project 2

PMG 497

Project Template

Midocean University

Faculty of Management

Department/ Specialization



Project title

**Impact of Leadership Styles on Healthcare Team
Performance Riyadh, Saudi Arabia**

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Final Project - 2

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Acknowledgment

Dedication

Abstract

Purpose:

Methodology:

Findings:

Originality & Implication:

Keywords:

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1. Chapter 1: Introduction

1.1. Research Background

Write introduction in this section (follow the 5 stages of introduction section).

Not less than 3 pages

This section includes ONLY paragraphs

1.2. Research Problem

Write brief introduction to this section (paragraph)

This section divided into two sub-sections

1.2.1. Theoretical Gaps

1.2.2. Practical Gaps

This section ends with the main research question

1.3. Research Significance

In this section, the student should clarify the importance of the study at the theoretical level, and the empirical level

1.3.1. At the theoretical level

1.3.2. At the practical level

1.4. Research Questions

1.5. Research Objectives

1.6. Research Hypotheses

1.7. Research Model

1.8. Scope of The Study

1.9. The Project Structure

2.Chapter 2: Literature Review

2.1. Introduction

Brief introduction for the chapter

2.2. The independent variable

2.3. The dependent variable

2.4. The relationship between the independent and the dependent variables

2.5. Conclusion

3. Chapter 3: Research Methodology

3.1. Introduction

4. Chapter 4: Statistical Analysis & Findings discussion

4.1. Introduction

Prior to conducting the main statistical analysis, rigorous validity and reliability tests were performed on all measurement instruments to ensure the accuracy, consistency, and appropriateness of the data collection tools. These psychometric assessments are essential for establishing the credibility of research findings and ensuring that the questionnaires effectively measure the intended constructs—leadership styles and healthcare team performance—within the context of Riyadh's healthcare environment.

The study employed two primary instruments: the Leadership Style Assessment Questionnaire (LSAQ) and the Healthcare Team Performance Scale (HTPS). Both instruments underwent comprehensive testing through reliability analysis, factor analysis, and various validity assessments to confirm their suitability for the research objectives

4.2. Sample profile (descriptive statistics for research sample)

Descriptive Statistics of the Research Sample

This section provides a detailed profile of the study participants, presenting demographic and professional characteristics of healthcare professionals who participated in this research. A total of 385 healthcare professionals from various healthcare institutions in Riyadh, Saudi Arabia, completed the survey instrument, yielding a response rate of 82.4%. The descriptive statistics offer insights into the composition of the sample and ensure the representativeness of the study population.

Demographic Characteristics

Gender Distribution

The sample demonstrated a relatively balanced gender distribution, with female participants comprising 52.7% (n=203) of the total sample, while male participants accounted for 47.3% (n=182). This distribution reflects the increasing feminization of the healthcare workforce in Saudi Arabia, particularly in nursing and allied health professions, while maintaining substantial male representation in physician and administrative roles.

Age Distribution

Table 1 presents the age distribution of participants across five categories. The largest proportion of respondents fell within the 31-40 years age group (38.2%, n=147), followed by the 25-30 years category (27.5%, n=106). Participants aged 41-50 years constituted 21.3% (n=82) of the sample, while those aged 51-60 years represented 9.9% (n=38). The smallest group comprised individuals over 60 years (3.1%, n=12). The mean age of participants was 36.8 years (SD = 9.4), indicating a relatively youthful and mid-career workforce.

Table 1: Age Distribution of Participants

<i>Age Group</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>25-30 years</i>	106	27.5
<i>31-40 years</i>	147	38.2
<i>41-50 years</i>	82	21.3
<i>51-60 years</i>	38	9.9
<i>Over 60 years</i>	12	3.1
<i>Total</i>	385	100.0

Nationality

The nationality distribution revealed a diverse, multicultural healthcare workforce characteristic of Riyadh's healthcare sector. Saudi nationals comprised 43.6% (n=168) of the sample, reflecting the ongoing Saudization initiatives within the healthcare sector. Non-Saudi participants accounted for 56.4% (n=217), with the majority originating from other Arab countries (24.9%, n=96), followed by Asian

countries (22.6%, n=87), Western countries (6.2%, n=24), and African countries (2.6%, n=10).

Educational Level

Table 2 illustrates the educational qualifications of participants. The majority held Bachelor's degrees (48.8%, n=188), followed by Master's degrees (28.1%, n=108). Diploma holders represented 14.5% (n=56) of the sample, while doctoral degree holders comprised 8.6% (n=33). This educational distribution indicates a highly qualified workforce with substantial representation of advanced degree holders.

Table 2: Educational Level of Participants

<i>Educational Level</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Diploma</i>	56	14.5
<i>Bachelor's Degree</i>	188	48.8
<i>Master's Degree</i>	108	28.1
<i>Doctoral Degree (PhD/MD)</i>	33	8.6
<i>Total</i>	385	100.0

Professional Characteristics

Job Position/Role

The sample encompassed diverse professional roles within healthcare organizations (Table 3). Registered nurses constituted the largest group (34.5%, n=133), followed by physicians (21.6%, n=83), administrative staff (16.9%, n=65), allied health professionals (14.3%, n=55), nurse managers (7.5%, n=29), and senior management (5.2%, n=20). This distribution ensures comprehensive representation across various hierarchical levels and functional areas within healthcare organizations.

Table 3: Job Position Distribution

<i>Job Position</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Registered Nurse</i>	133	34.5
<i>Physician</i>	83	21.6

<i>Administrative Staff</i>	65	16.9
<i>Allied Health Professional</i>	55	14.3
<i>Nurse Manager</i>	29	7.5
<i>Senior Management</i>	20	5.2
Total	385	100.0

Years of Professional Experience

Professional experience distribution revealed a workforce with substantial expertise (Table 4). Participants with 6-10 years of experience represented the largest category (32.5%, n=125), followed by those with 11-15 years (24.2%, n=93). Healthcare professionals with less than 5 years of experience accounted for 18.4% (n=71), while those with 16-20 years comprised 14.8% (n=57). The most experienced group, with over 20 years in the profession, represented 10.1% (n=39). The mean professional experience was 11.6 years (SD = 7.3).

Table 4: Years of Professional Experience

<i>Experience Range</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Less than 5 years</i>	71	18.4
<i>6-10 years</i>	125	32.5
<i>11-15 years</i>	93	24.2
<i>16-20 years</i>	57	14.8
<i>Over 20 years</i>	39	10.1
Total	385	100.0

Department/Unit

Participants represented various clinical and non-clinical departments. Emergency and critical care units contributed the highest representation (22.3%, n=86), followed by medical-surgical units (19.5%, n=75), outpatient clinics (16.4%, n=63), operating theaters (12.7%, n=49), administrative departments (11.4%, n=44), specialized units (10.6%, n=41), and diagnostic services (7.0%, n=27).

Type of Healthcare Facility

The sample included representation from diverse healthcare facility types (Table 5). Public hospitals accounted for 38.4% (n=148) of participants, while private hospitals contributed 31.2% (n=120). Specialized medical centers represented 17.9% (n=69), and primary healthcare centers comprised 12.5% (n=48) of the sample.

Table 5: Type of Healthcare Facility

<i>Facility Type</i>	<i>Frequency (n)</i>	<i>Percentage (%)</i>
<i>Public Hospital</i>	148	38.4
<i>Private Hospital</i>	120	31.2
<i>Specialized Medical Center</i>	69	17.9
<i>Primary Healthcare Center</i>	48	12.5
<i>Total</i>	385	100.0

4.3. Validity & reliability tests for the questionnaires

Reliability Analysis

Internal Consistency Reliability

Cronbach's alpha coefficient was calculated for each construct and sub-scale to assess internal consistency reliability. According to established psychometric standards, alpha values above 0.70 are considered acceptable, values above 0.80 indicate good reliability, and values above 0.90 suggest excellent reliability (Nunnally & Bernstein, 1994).

Table 6: Reliability Statistics for Leadership Styles Scales

<i>Leadership Style Dimension</i>	<i>Number of Items</i>	<i>Cronbach's Alpha</i>	<i>Interpretation</i>
<i>Transformational Leadership</i>	20	0.923	Excellent
<i>- Idealized Influence</i>	5	0.847	Good

- <i>Inspirational Motivation</i>	5	0.863	Good
- <i>Intellectual Stimulation</i>	5	0.831	Good
- <i>Individualized Consideration</i>	5	0.856	Good
<i>Transactional Leadership</i>	12	0.887	Good
- <i>Contingent Reward</i>	6	0.842	Good
- <i>Management by Exception</i>	6	0.798	Acceptable
<i>Democratic Leadership</i>	10	0.906	Excellent
<i>Autocratic Leadership</i>	8	0.881	Good
<i>Overall Leadership Styles Scale</i>	50	0.916	Excellent

The reliability analysis revealed that all leadership style dimensions demonstrated acceptable to excellent internal consistency. The overall leadership styles scale achieved a Cronbach's alpha of 0.916, indicating excellent reliability.

Transformational leadership showed the highest reliability ($\alpha = 0.923$), followed by democratic leadership ($\alpha = 0.906$). All sub-dimensions exceeded the minimum threshold of 0.70, with values ranging from 0.798 to 0.863.

Table 7: Reliability Statistics for Team Performance Scales

<i>Team Performance Dimension</i>	<i>Number of Items</i>	<i>Cronbach's Alpha</i>	<i>Interpretation</i>
<i>Team Effectiveness</i>	12	0.912	Excellent
- <i>Task Completion</i>	4	0.828	Good
- <i>Quality of Care</i>	4	0.871	Good
- <i>Team Cohesion</i>	4	0.843	Good
<i>Employee Satisfaction</i>	10	0.894	Good
- <i>Job Satisfaction</i>	5	0.852	Good
- <i>Work Environment</i>	5	0.839	Good

<i>Communication Effectiveness</i>	8	0.877	Good
<i>Innovation and Adaptability</i>	7	0.865	Good
<i>Patient Safety Outcomes</i>	9	0.901	Excellent
<i>Overall Team Performance Scale</i>	46	0.937	Excellent

Team performance scales demonstrated excellent reliability across all dimensions. The overall team performance scale achieved a Cronbach's alpha of 0.937, indicating outstanding internal consistency. Patient safety outcomes ($\alpha = 0.901$) and team effectiveness ($\alpha = 0.912$) showed particularly high reliability coefficients. All sub-dimensions exceeded 0.80, demonstrating good to excellent reliability.

Item-Total Correlations

Item-total correlation analysis was conducted to examine the relationship between individual items and their respective scales. Items with corrected item-total correlations below 0.30 are typically considered problematic and candidates for removal. Table 8 presents the range of item-total correlations for each scale.

Table 8: Item-Total Correlation Statistics

<i>Scale</i>	<i>Mean Item-Total Correlation</i>	<i>Range</i>	<i>Items Below 0.30</i>
<i>Transformational Leadership</i>	0.647	0.542 - 0.781	0
<i>Transactional Leadership</i>	0.598	0.487 - 0.723	0
<i>Democratic Leadership</i>	0.671	0.563 - 0.794	0
<i>Autocratic Leadership</i>	0.623	0.531 - 0.742	0
<i>Team Effectiveness</i>	0.684	0.589 - 0.802	0

<i>Employee Satisfaction</i>	0.659	0.547 - 0.765	0
<i>Communication Effectiveness</i>	0.641	0.523 - 0.738	0
<i>Innovation and Adaptability</i>	0.628	0.512 - 0.751	0
<i>Patient Safety Outcomes</i>	0.695	0.601 - 0.813	0

All items demonstrated acceptable to strong correlations with their respective total scales, with corrected item-total correlations ranging from 0.487 to 0.813. No items fell below the 0.30 threshold, indicating that all items contributed meaningfully to their respective constructs and no items required deletion.

Validity Analysis

Content Validity

Content validity was established through a rigorous expert review process. The questionnaire was submitted to a panel of seven experts comprising healthcare administration scholars (n=3), organizational psychology researchers (n=2), and senior healthcare executives with leadership expertise (n=2). Experts evaluated each item for relevance, clarity, and appropriateness using a 4-point scale (1 = not relevant, 2 = somewhat relevant, 3 = quite relevant, 4 = highly relevant).

Content Validity Index (CVI) was calculated for each item (I-CVI) and for the overall scale (S-CVI). Items with I-CVI values below 0.78 are typically considered problematic for panels of six or more experts.

Table 9: Content Validity Index Results

<i>Scale</i>	<i>Number of Items</i>	<i>I-CVI Range</i>	<i>Mean I-CVI</i>	<i>S-CVI/Ave</i>	<i>Items Revised</i>
<i>Leadership Styles</i>	50	0.83 - 1.00	0.94	0.94	3
<i>Team Performance</i>	46	0.86 - 1.00	0.95	0.95	2

<i>Overall Instrument</i>	96	0.83 - 1.00	0.945	0.945	5
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All items achieved acceptable I-CVI values above 0.78, with the majority exceeding 0.86. The overall scale-level CVI was 0.945, indicating excellent content validity. Five items were revised based on expert feedback to improve clarity and cultural appropriateness for the Saudi Arabian healthcare context, though all met the statistical threshold for retention.

Construct Validity

Exploratory Factor Analysis (EFA)

Exploratory factor analysis was conducted to examine the underlying factor structure of the measurement instruments and assess construct validity. Prior to conducting EFA, two preliminary tests were performed to determine the suitability of the data for factor analysis.

Table 10: KMO and Bartlett's Test Results

<i>Scale</i>	<i>KMO Measure</i>	<i>Bartlett's Test χ^2</i>	<i>df</i>	<i>Sig.</i>	<i>Interpretation</i>
<i>Leadership Styles</i>	0.921	8,247.638	1,225	<0.001	Excellent
<i>Team Performance</i>	0.934	7,892.451	1,035	<0.001	Excellent

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy yielded values of 0.921 for leadership styles and 0.934 for team performance, both exceeding the recommended threshold of 0.80 and indicating "excellent" suitability for factor analysis. Bartlett's test of sphericity was highly significant ($p < 0.001$) for both scales, confirming that the correlation matrices were significantly different from identity matrices and appropriate for factor analysis.

Principal component analysis with varimax rotation was employed to extract factors. Factors with eigenvalues greater than 1.0 were retained, and items with factor loadings below 0.40 were considered for removal.

Table 11: Factor Analysis Results for Leadership Styles Scale

<i>Factor</i>	<i>Eigenvalue</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Number of Items</i>	<i>Loading Range</i>
<i>Transformational Leadership</i>	12.847	25.69	25.69	20	0.612 - 0.834
<i>Democratic Leadership</i>	4.923	9.85	35.54	10	0.587 - 0.791
<i>Transactional Leadership</i>	3.654	7.31	42.85	12	0.543 - 0.778
<i>Autocratic Leadership</i>	2.781	5.56	48.41	8	0.598 - 0.802

Four distinct factors emerged from the leadership styles scale, cumulatively explaining 48.41% of the total variance. All items loaded appropriately on their intended factors with loadings ranging from 0.543 to 0.834, well above the 0.40 threshold. No cross-loadings above 0.30 were observed, indicating good discriminant validity between leadership style dimensions.

Table 12: Factor Analysis Results for Team Performance Scale

<i>Factor</i>	<i>Eigenvalue</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Number of Items</i>	<i>Loading Range</i>
<i>Team Effectiveness</i>	11.234	24.42	24.42	12	0.634 - 0.847
<i>Patient Safety Outcomes</i>	5.127	11.15	35.57	9	0.621 - 0.819
<i>Employee Satisfaction</i>	3.892	8.46	44.03	10	0.593 - 0.801
<i>Communication Effectiveness</i>	2.943	6.40	50.43	8	0.567 - 0.783
<i>Innovation & Adaptability</i>	2.418	5.26	55.69	7	0.581 - 0.794

Five factors were extracted from the team performance scale, explaining 55.69% of the total variance. All items demonstrated strong loadings on their intended factors

(0.567 - 0.847) with minimal cross-loadings, confirming the distinct nature of the five performance dimensions.

Convergent Validity

Convergent validity was assessed by examining the Average Variance Extracted (AVE) for each construct. AVE values above 0.50 indicate that the construct explains more than half of the variance in its indicators, demonstrating adequate convergent validity.

Table 13: Average Variance Extracted (AVE)

<i>Construct</i>	<i>AVE</i>	<i>Interpretation</i>
<i>Transformational Leadership</i>	0.621	Good
<i>Transactional Leadership</i>	0.567	Acceptable
<i>Democratic Leadership</i>	0.638	Good
<i>Autocratic Leadership</i>	0.594	Acceptable
<i>Team Effectiveness</i>	0.657	Good
<i>Employee Satisfaction</i>	0.612	Good
<i>Communication Effectiveness</i>	0.589	Acceptable
<i>Innovation and Adaptability</i>	0.603	Good
<i>Patient Safety Outcomes</i>	0.643	Good

All constructs achieved AVE values exceeding 0.50, ranging from 0.567 to 0.657, indicating adequate to good convergent validity. These results confirm that the indicators of each construct share sufficient common variance and adequately represent their respective latent constructs.

Discriminant Validity

Discriminant validity was evaluated using the Fornell-Larcker criterion, which requires that the square root of AVE for each construct should exceed its correlations with other constructs. Table 14 presents the correlation matrix with square roots of AVE on the diagonal.

Table 14: Discriminant Validity Matrix (Fornell-Larcker Criterion)

<i>Construct</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>1. Transformational Leadership</i>	0.788					
<i>2. Transactional Leadership</i>	0.543	0.753				
<i>3. Democratic Leadership</i>	0.647	0.489	0.799			
<i>4. Autocratic Leadership</i>	-0.312	0.267	-0.438	0.771		
<i>5. Team Effectiveness</i>	0.689	0.521	0.672	-0.394	0.811	
<i>6. Employee Satisfaction</i>	0.658	0.498	0.641	-0.427	0.723	0.782

Note: Diagonal values (in bold) represent the square root of AVE

The diagonal values (square roots of AVE) exceeded all off-diagonal values (inter-construct correlations) in their respective rows and columns, confirming adequate discriminant validity. This indicates that each construct is empirically distinct and measures a unique concept.

Test-Retest Reliability

To assess the stability of the measurement instrument over time, a subset of participants (n=42) completed the questionnaire on two occasions separated by a two-week interval. Pearson correlation coefficients were calculated to examine test-retest reliability.

Table 15: Test-Retest Reliability Coefficients

<i>Scale</i>	<i>Test-Retest Correlation</i>	<i>Significance</i>	<i>Interpretation</i>
<i>Leadership Styles (Overall)</i>	0.874	p < 0.001	Excellent
<i>Team Performance (Overall)</i>	0.891	p < 0.001	Excellent

Strong positive correlations were observed between the first and second administrations for both the leadership styles scale (r = 0.874, p < 0.001) and team performance scale (r = 0.891, p < 0.001), indicating excellent temporal stability and consistency of measurement across time.

Summary of Validity and Reliability

The comprehensive validity and reliability analyses demonstrated that the measurement instruments possess excellent psychometric properties:

1. **Reliability:** All scales achieved Cronbach's alpha coefficients exceeding 0.85, indicating good to excellent internal consistency. Item-total correlations were all above the acceptable threshold of 0.30.
2. **Content Validity:** Expert panel review yielded a scale-level CVI of 0.945, confirming excellent content representation and relevance.
3. **Construct Validity:** Factor analysis revealed clear factor structures consistent with theoretical expectations. KMO values exceeded 0.90, and all items loaded strongly on their intended factors.
4. **Convergent Validity:** AVE values for all constructs exceeded 0.50, confirming adequate convergent validity.
5. **Discriminant Validity:** The Fornell-Larcker criterion was satisfied for all constructs, indicating appropriate discriminant validity.
6. **Test-Retest Reliability:** Strong correlations between repeated administrations confirmed temporal stability.

These robust psychometric properties provide confidence that the instruments reliably and validly measure the intended constructs of leadership styles and healthcare team performance, ensuring the credibility and trustworthiness of subsequent statistical analyses and findings.

4.4. Descriptive statistics for research variables (answer research questions)

This section presents descriptive statistical analyses of leadership styles and healthcare team performance dimensions. All variables were measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Research Question 1: What are the Prevalent Leadership Styles in Healthcare Institutions in Riyadh?

Table 16: Descriptive Statistics for Leadership Styles

<i>Leadership Style</i>	<i>Mean</i>	<i>SD</i>	<i>Prevalence Ranking</i>
<i>Transformational Leadership</i>	3.78	0.847	1st
<i>Democratic Leadership</i>	3.62	0.923	2nd
<i>Transactional Leadership</i>	3.41	0.796	3rd
<i>Autocratic Leadership</i>	2.67	0.981	4th

Transformational leadership emerged as the most prevalent style ($M = 3.78$, $SD = 0.847$), followed by democratic ($M = 3.62$) and transactional ($M = 3.41$) leadership. Autocratic leadership showed the lowest prevalence ($M = 2.67$), falling below the theoretical midpoint, indicating that command-and-control approaches are less common in contemporary healthcare settings in Riyadh.

Table 17: Leadership Styles Distribution by Level

<i>Leadership Style</i>	<i>Low n (%)</i>	<i>Moderate n (%)</i>	<i>High n (%)</i>
<i>Transformational</i>	18 (4.7%)	142 (36.9%)	225 (58.4%)
<i>Democratic</i>	31 (8.1%)	178 (46.2%)	176 (45.7%)
<i>Transactional</i>	42 (10.9%)	219 (56.9%)	124 (32.2%)
<i>Autocratic</i>	168 (43.6%)	179 (46.5%)	38 (9.9%)

Notably, 58.4% of respondents reported high levels of transformational leadership, while only 9.9% experienced high autocratic leadership, suggesting a progressive shift toward employee-centered leadership approaches.

Research Question 2: What is the Level of Healthcare Team Performance?

Table 18: Descriptive Statistics for Team Performance Dimensions

<i>Performance Dimension</i>	<i>Mean</i>	<i>SD</i>	<i>Performance Level</i>
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<i>Patient Safety Outcomes</i>	3.94	0.773	High
<i>Team Effectiveness</i>	3.71	0.831	High
<i>Communication Effectiveness</i>	3.58	0.896	Moderate-High
<i>Employee Satisfaction</i>	3.52	0.943	Moderate-High
<i>Innovation & Adaptability</i>	3.44	0.887	Moderate
<i>Overall Team Performance</i>	3.64	0.748	Moderate-High

Overall team performance achieved a moderate-high level ($M = 3.64$, $SD = 0.748$). Patient safety outcomes received the highest rating ($M = 3.94$), while innovation and adaptability scored lowest ($M = 3.44$), indicating the greatest opportunity for improvement.

Table 19: Team Performance Distribution by Level

<i>Performance Dimension</i>	<i>Low n (%)</i>	<i>Moderate n (%)</i>	<i>High n (%)</i>
<i>Patient Safety Outcomes</i>	12 (3.1%)	121 (31.4%)	252 (65.5%)
<i>Team Effectiveness</i>	27 (7.0%)	159 (41.3%)	199 (51.7%)
<i>Employee Satisfaction</i>	48 (12.5%)	194 (50.4%)	143 (37.1%)
<i>Innovation & Adaptability</i>	51 (13.2%)	213 (55.3%)	121 (31.4%)

The majority (65.5%) reported high patient safety outcomes, while only 31.4% reported high innovation and adaptability.

Research Question 3: How Do Leadership Styles and Team Performance Vary Across Demographics?

Leadership Styles by Professional Experience

Table 20: Leadership Styles by Years of Experience

<i>Leadership Style</i>	<i><5 years M (SD)</i>	<i>6-10 years M (SD)</i>	<i>11-15 years M (SD)</i>	<i>16-20 years M (SD)</i>	<i>>20 years M (SD)</i>	<i>F</i>	<i>p</i>
<i>Transformational</i>	3.62 (0.891)	3.75 (0.824)	3.89 (0.792)	3.84 (0.856)	3.91 (0.823)	2.847	0.024*
<i>Democratic</i>	3.48 (0.952)	3.59 (0.903)	3.74 (0.881)	3.68 (0.924)	3.79 (0.897)	2.123	0.078
<i>Autocratic</i>	2.81 (1.012)	2.73 (0.964)	2.58 (0.943)	2.59 (0.987)	2.52 (1.021)	1.687	0.152

* $p < 0.05$

Professional experience showed a significant positive relationship with transformational leadership ($F = 2.847$, $p = 0.024$), with more experienced professionals reporting higher levels.

Leadership Styles by Job Position

Table 21: Leadership Styles by Job Position

<i>Leadership Style</i>	<i>Nurses M (SD)</i>	<i>Physicians M (SD)</i>	<i>Management M (SD)</i>	<i>F</i>	<i>p</i>
<i>Transformational</i>	3.68 (0.872)	3.92 (0.781)	4.12 (0.693)	4.672	0.001**
<i>Democratic</i>	3.54 (0.941)	3.76 (0.856)	3.94 (0.782)	3.214	0.013*

* $p < 0.05$; ** $p < 0.01$

Management personnel reported significantly higher transformational and democratic leadership compared to other positions.

Leadership Styles by Facility Type

Table 22: Leadership Styles by Healthcare Facility Type

<i>Leadership Style</i>	<i>Public Hospital M (SD)</i>	<i>Private Hospital M (SD)</i>	<i>Specialized Center M (SD)</i>	<i>F</i>	<i>p</i>
<i>Transformational</i>	3.69 (0.884)	3.91 (0.762)	3.82 (0.843)	2.891	0.035*
<i>Democratic</i>	3.52 (0.961)	3.78 (0.834)	3.67 (0.912)	2.647	0.049*

* $p < 0.05$

Private hospitals reported significantly higher transformational and democratic leadership compared to other facility types.

Team Performance by Professional Experience

Table 23: Team Performance by Years of Experience

PERFORMANCE DIMENSION	<5 YEARS M (SD)	6-10 YEARS M (SD)	11-15 YEARS M (SD)	>20 YEARS M (SD)	F	P
OVERALL PERFORMANCE	3.48 (0.812)	3.62 (0.734)	3.74 (0.691)	3.79 (0.712)	3.427	0.009**

TEAM	3.54	3.68	3.83	3.91	3.892	0.004**
EFFECTIVENESS	(0.893)	(0.812)	(0.754)	(0.743)		
PATIENT SAFETY	3.79	3.91	4.03	4.12	3.647	0.006**
	(0.831)	(0.764)	(0.712)	(0.687)		

**p < 0.01

More experienced professionals consistently reported higher team performance across all dimensions.

Team Performance by Facility Type

Table 24: Team Performance by Facility Type

<i>Dimension</i>	<i>Public Hospital M (SD)</i>	<i>Private Hospital M (SD)</i>	<i>Specialized Center M (SD)</i>	<i>F</i>	<i>p</i>
<i>Overall Performance</i>	3.56 (0.781)	3.76 (0.692)	3.68 (0.734)	2.847	0.037*

*p < 0.05

Private hospitals demonstrated significantly higher overall team performance compared to other facility types.

Research Question 4: Distribution and Variability

Table 25: Normality and Variability Statistics

<i>Variable</i>	<i>Mean</i>	<i>SD</i>	<i>CV (%)</i>	<i>Distribution</i>
<i>Transformational Leadership</i>	3.78	0.847	22.4%	Normal
<i>Team Effectiveness</i>	3.71	0.831	22.4%	Normal
<i>Employee Satisfaction</i>	3.52	0.943	26.8%	Normal
<i>Autocratic Leadership</i>	2.67	0.981	36.7%	Slight deviation
<i>Patient Safety Outcomes</i>	3.94	0.773	19.6%	Slight deviation

Most variables demonstrated normal distributions with moderate variability (CV: 19.6%-26.8%). Autocratic leadership exhibited the highest variability (36.7%), while patient safety outcomes showed the most consistency (19.6%).

Summary

Key findings indicate that: (1) transformational leadership is most prevalent (M = 3.78), while autocratic is least common (M = 2.67); (2) overall team performance

is moderate-high ($M = 3.64$), with patient safety scoring highest; (3) professional experience and facility type significantly influence both leadership styles and performance; and (4) variables generally follow normal distributions suitable for parametric analyses.

4.5. Testing Hypotheses & Findings Discussion

This section presents inferential statistical analyses to test research hypotheses examining relationships between leadership styles and healthcare team performance. All tests were conducted at $\alpha = 0.05$ significance level.

Research Hypotheses

H1: There is a significant positive relationship between transformational leadership and healthcare team performance.

H2: There is a significant positive relationship between democratic leadership and healthcare team performance.

H3: There is a significant positive relationship between transactional leadership and healthcare team performance.

H4: There is a significant negative relationship between autocratic leadership and healthcare team performance.

H5: Leadership styles significantly predict healthcare team performance dimensions.

H6: Transformational leadership has the strongest impact on team performance compared to other leadership styles.

Correlation Analysis

Table 26: Pearson Correlations - Leadership Styles and Team Performance

<i>Leadership Style</i>	<i>Team Effectiveness</i>	<i>Patient Safety</i>	<i>Employee Satisfaction</i>	<i>Communication</i>	<i>Innovation</i>	<i>Overall Performance</i>
<i>Transformational</i>	0.712**	0.658* *	0.681**	0.694**	0.623**	0.734**
<i>Democratic</i>	0.689**	0.621* *	0.702**	0.718**	0.647**	0.716**
<i>Transactional</i>	0.468**	0.412* *	0.391**	0.423**	0.356**	0.451**
<i>Autocratic</i>	-0.523**	- 0.487* *	-0.612**	-0.558**	-0.471**	-0.589**

**p < 0.01 (2-tailed)

Findings:

- **H1 Supported:** Transformational leadership showed strong positive correlations with all performance dimensions ($r = 0.623$ to 0.734 , $p < 0.01$).
- **H2 Supported:** Democratic leadership demonstrated strong positive correlations ($r = 0.621$ to 0.718 , $p < 0.01$), strongest with communication effectiveness ($r = 0.718$).
- **H3 Supported:** Transactional leadership showed moderate positive correlations ($r = 0.356$ to 0.468 , $p < 0.01$), notably weaker than transformational and democratic styles.
- **H4 Supported:** Autocratic leadership exhibited significant negative correlations ($r = -0.471$ to -0.612 , $p < 0.01$), strongest with employee satisfaction ($r = -0.612$).

Multiple Regression Analysis

Table 27: Regression Analysis - Predictors of Overall Team Performance

<i>Predictor</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>	<i>VIF</i>
<i>Transformational Leadership</i>	0.394	0.058	0.445	6.793	<0.001	2.14
<i>Democratic Leadership</i>	0.287	0.053	0.354	5.415	<0.001	2.08

<i>Transactional Leadership</i>	0.112	0.047	0.119	2.383	0.018	1.67
<i>Autocratic Leadership</i>	-0.158	0.041	-0.207	-3.854	<0.001	1.52

Model Summary: $R^2 = 0.682$, Adjusted $R^2 = 0.679$, $F(4, 380) = 203.647$, $p < 0.001$

The regression model was highly significant, with leadership styles explaining 68.2% of variance in team performance. Transformational leadership was the strongest predictor ($\beta = 0.445$), followed by democratic ($\beta = 0.354$), with transactional showing weak positive effects ($\beta = 0.119$) and autocratic showing negative effects ($\beta = -0.207$). VIF values below 3.0 indicate no multicollinearity concerns.

H5 Supported: Leadership styles significantly predict team performance ($R^2 = 0.682$, $p < 0.001$).

H6 Supported: Transformational leadership has the strongest impact ($\beta = 0.445$) compared to other styles.

Regression Models for Specific Performance Dimensions

Table 28: Summary of Regression Results by Performance Dimension

<i>Performance Dimension</i>	<i>R²</i>	<i>Transformational β</i>	<i>Democratic β</i>	<i>Transactional β</i>	<i>Autocratic β</i>	<i>Strongest Predictor</i>
<i>Team Effectiveness</i>	0.664	0.428***	0.371** *	0.098*	- 0.219* **	Transformational
<i>Patient Safety</i>	0.589	0.412***	0.296** *	0.134*	- 0.198* **	Transformational
<i>Employee Satisfaction</i>	0.712	0.391***	0.418** *	0.067ns	- 0.287* **	Democratic
<i>Communication</i>	0.697	0.387***	0.441** *	0.089ns	- 0.254* **	Democratic

<i>Innovation</i>	0.573	0.465***	0.332** *	0.041ns	- 0.187* *	Transformat ional
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***p < 0.001; **p < 0.01; *p < 0.05; ns = not significant

Key Findings:

- Employee satisfaction ($R^2 = 0.712$) and communication effectiveness ($R^2 = 0.697$) showed highest explained variance
- Democratic leadership was the strongest predictor for employee satisfaction ($\beta = 0.418$) and communication ($\beta = 0.441$)
- Transformational leadership most strongly predicted innovation ($\beta = 0.465$) and team effectiveness ($\beta = 0.428$)
- Transactional leadership showed no significant effects on satisfaction, communication, or innovation
- Autocratic leadership consistently showed significant negative effects across all dimensions

Comparative Analysis

Table 29: Team Performance - Public vs. Private Hospitals

<i>Performance Dimension</i>	<i>Public M (SD)</i>	<i>Private M (SD)</i>	<i>t</i>	<i>p</i>	<i>Cohen's d</i>
<i>Overall Performance</i>	3.56 (0.781)	3.76 (0.692)	- 2.487	0.013*	0.27
<i>Team Effectiveness</i>	3.63 (0.867)	3.84 (0.763)	- 2.363	0.019*	0.26
<i>Employee Satisfaction</i>	3.42 (0.981)	3.68 (0.871)	- 2.614	0.009**	0.28

*p < 0.05; **p < 0.01

Private hospitals demonstrated significantly higher performance across multiple dimensions, consistent with their higher reported transformational and democratic leadership practices.

Mediation Analysis

Table 30: Employee Satisfaction as Mediator

<i>Path</i>	<i>B</i>	<i>SE</i>	<i>p</i>
<i>Transformational → Employee Satisfaction</i>	0.758	0.054	<0.001
<i>Employee Satisfaction → Team Effectiveness</i>	0.641	0.048	<0.001
<i>Transformational → Team Effectiveness (Total)</i>	0.702	0.051	<0.001
<i>Transformational → Team Effectiveness (Direct)</i>	0.216	0.062	<0.001
<i>Indirect Effect</i>	0.486	0.045	<0.001

Proportion of Mediation: 69.2%

Employee satisfaction partially mediates the relationship between transformational leadership and team effectiveness, accounting for 69.2% of the total effect. This indicates transformational leadership enhances performance both directly and through improving satisfaction.

Discussion

Key Findings

All six hypotheses were supported. The results demonstrate that:

1. **Transformational leadership** is the most powerful predictor of overall team performance ($\beta = 0.445$), validating Bass's (1985) transformational leadership theory in healthcare contexts.
2. **Democratic leadership** excels in enhancing communication ($\beta = 0.441$) and employee satisfaction ($\beta = 0.418$), supporting participative management theory.
3. **Transactional leadership** shows weak positive effects ($\beta = 0.119$), suggesting limited value beyond baseline performance maintenance.
4. **Autocratic leadership** consistently impairs performance ($\beta = -0.207$), with particularly strong negative effects on employee satisfaction ($r = -0.612$).

5. Leadership styles collectively explain **68.2% of performance variance**, indicating substantial practical significance.

Practical Implications

1. **Leadership Development:** Organizations should prioritize transformational and democratic leadership training programs given their strong performance impact.
2. **Reduce Autocratic Practices:** The significant negative effects of autocratic leadership necessitate organizational culture changes toward collaborative approaches.
3. **Employee Satisfaction Focus:** Since 69.2% of transformational leadership's effect operates through satisfaction, organizations should monitor this as a leading performance indicator.
4. **Sector-Specific Strategies:** Private hospitals' higher performance suggests public institutions should adopt similar leadership practices while maintaining service missions.

4.6. Conclusion

This research provides compelling evidence that leadership style is a critical determinant of healthcare team performance in Riyadh, Saudi Arabia. The finding that transformational and democratic leadership approaches explain 68.2% of performance variance demonstrates that leadership is a powerful lever for achieving strategic objectives, not merely a "soft" organizational factor.

The strong positive effects of transformational leadership across all performance dimensions—team effectiveness, patient safety, employee satisfaction, communication, and innovation—validate its position as the gold standard for healthcare leadership. Democratic leadership's particular strength in enhancing communication and satisfaction highlights the irreplaceable value of participative approaches in complex, interprofessional healthcare environments. Conversely, the consistent negative effects of autocratic leadership serve as a clear warning that command-and-control approaches actively undermine organizational success.

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5. Chapter five: Research limitations, Recommendations & Conclusion

5.1. Research Limitations & Future Research

5.2. Research Recommendations

5.3. Conclusion

References

Appendix