

## TRANSFORMATIONAL LEADERSHIP AND HEALTHCARE TEAM PERFORMANCE: EXAMINING THEIR ASSOCIATION IN CLINICAL SETTINGS

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### Abstract

**Background:** Transformational leadership is theorized to enhance team functioning by articulating vision, fostering motivation, and supporting staff development. Empirical evidence in healthcare suggests positive links between transformational leader behaviors and team outcomes, yet context-specific data from diverse clinical settings remain limited.

**Objectives:** To (1) assess the level of transformational leadership practices among healthcare leaders, (2) evaluate healthcare team performance across established indicators, and (3) examine the association between transformational leadership practices and team performance.

**Method:** A quantitative descriptive cross-sectional study was conducted in selected hospitals. The sample comprised 240 participants (85 identified as healthcare leaders). Transformational leadership was measured with the MLQ-5X and team performance with a validated Team Performance Scale (TPS). Stratified random sampling was employed. Data were analyzed using SPSS: descriptive statistics summarized participant characteristics and scale scores; Pearson correlation tested associations between leadership dimensions and team performance; additional multivariable analyses were planned to adjust for covariates.

**Results:** The sample was predominantly female (57.5%) and largely mid-career (31–40 years, 42.5%); most held bachelor's or master's degrees. Healthcare leaders reported a high overall level of transformational leadership ( $M = 3.84$ ,  $SD = 0.61$ ), with inspirational motivation highest ( $M = 3.92$ ). Team performance was also high overall ( $M = 3.79$ ,  $SD = 0.60$ ), with goal achievement scoring highest ( $M = 3.91$ ). Pearson correlations indicated significant, positive associations between transformational leadership dimensions and team performance: inspirational motivation ( $r = .52$ ,  $p < .001$ ), individualized consideration ( $r = .49$ ,  $p < .001$ ), idealized influence ( $r = .46$ ,  $p < .001$ ), intellectual stimulation ( $r = .41$ ,  $p < .001$ ), and overall transformational leadership ( $r = .54$ ,  $p < .001$ ).

**Conclusion:** Transformational leadership practices are positively associated with healthcare team performance in the sampled clinical settings. Inspirational and supportive leader behaviors demonstrated the strongest relationships with team outcomes, whereas intellectual stimulation showed relatively lower—but still significant—associations, indicating an opportunity for targeted leadership development. Findings are constrained by the cross-sectional design and self-report measures; longitudinal and mixed-methods research is recommended to elucidate causal pathways and incorporate objective performance indicators.

## INTRODUCTION

Leadership is broadly defined as the process through which an individual influences and guides others toward the achievement of shared goals. It involves vision, communication, and the ability to inspire collective effort beyond routine management tasks (Bass & Riggio, 2006). In healthcare, where team collaboration and rapid decision-making are crucial, effective leadership is a cornerstone of organizational success. Among the different leadership models, transformational leadership has emerged as one of the most impactful in shaping employee outcomes, organizational climate, and team performance.

Transformational leadership is characterized by a leader's capacity to inspire followers, articulate a compelling vision, foster creativity, and attend to individual developmental needs. This leadership style is particularly important in healthcare, where teams face high stress, limited resources, and the need for continuous innovation in patient care (Al Maqbali et al., 2024). Transformational leaders influence staff morale, promote psychological safety, and encourage engagement, ultimately enhancing the quality of care provided to patients (Boamah et al., 2022).

The construct of transformational leadership is operationalized through four components, commonly known as the "4 I's." Idealized influence emphasizes the leader's role as a role model, promoting trust and ethical conduct. Inspirational motivation reflects the leader's ability to convey a vision that inspires collective commitment. Intellectual stimulation involves encouraging critical thinking, innovation, and problem-solving. Individualized consideration requires leaders to mentor and support the unique needs of their staff (Bass & Riggio, 2006). Together, these components capture a leadership style that goes beyond transactional exchanges and aims to elevate both individual and organizational performance.

In healthcare settings, transformational leadership practices are increasingly observed among nurse managers, physicians, and administrators. Leaders who exhibit these practices provide guidance rooted in ethical standards, communicate shared goals of patient-centered care, stimulate innovation in problem-solving, and coach staff to achieve professional growth. Recent empirical research highlights that transformational leadership among healthcare leaders is associated with improved teamwork, greater employee engagement, and reduced turnover intention (Aloisio & Gifford, 2021; Lee & Dahinten, 2021). These findings suggest that transformational leadership is not only beneficial for staff well-being but also crucial for organizational sustainability in healthcare environments.

The relationship between transformational leadership practices and team performance has been widely studied in recent years. Evidence consistently shows that transformational leaders foster team cohesion, collaboration, and adaptability, all of which contribute to higher team performance (Boamah et al., 2022). Studies conducted in diverse healthcare contexts have documented associations between transformational leadership and outcomes such as enhanced safety climate, increased work engagement, and improved patient satisfaction (Al Maqbali et al., 2024; Khan et al., 2023). Transformational leaders create an environment where healthcare teams feel motivated to perform at their best, leading to improved efficiency and quality of care delivery.

Despite the growing body of literature, several research gaps remain. First, much of the evidence comes from cross-sectional studies, limiting causal interpretations of the association between leadership and team performance (Franco et al., 2024). Second, many studies are concentrated in high-income countries, with limited empirical data from low- and

middle-income countries, particularly in South Asia, where healthcare systems face distinct challenges (Khan et al., 2023). Third, while mediators such as work engagement and psychological safety have been explored, other mechanisms—such as empowerment, organizational climate, and cultural differences—remain underexamined (Aloisio & Gifford, 2021). Finally, team performance is often measured through self-reported outcomes rather than objective performance indicators, such as patient outcomes or clinical quality metrics, which constrains the generalizability of findings (Boamah et al., 2022). These gaps highlight the need for more context-specific, descriptive research that examines transformational leadership and team performance using robust measures.

The rationale for the present study lies in addressing these gaps by assessing the level of transformational leadership practices among healthcare leaders and examining their association with team performance indicators in the selected healthcare settings. Understanding these dynamics is vital, as healthcare teams operate under high pressure, and leadership styles play a decisive role in shaping their effectiveness. By providing empirical evidence from a specific context where limited research has been conducted, this study will enrich the global understanding of how transformational leadership affects healthcare teams. The significance of this study is threefold. Practically, it will inform leadership training and development programs by identifying the extent of transformational leadership practices and their impact on performance. At a policy level, findings can guide healthcare administrators in strengthening leadership models to improve team collaboration, staff retention, and patient outcomes. Academically, this research contributes to filling the literature gap by adding context-specific data, providing a foundation for future studies that may explore mediating and moderating mechanisms in greater depth.

**The objectives of this study are as follows:**

1. To assess the level of transformational leadership practices among healthcare leaders in the selected healthcare settings.
2. To evaluate the overall performance of healthcare teams in relation to established performance indicators.

3. To examine the relationship between transformational leadership practices and healthcare team performance.

**Methodology**

The present study aims to investigate the impact of transformational leadership on healthcare team performance in selected healthcare settings. Specifically, it seeks to assess the prevalence of transformational leadership practices among healthcare leaders, evaluate team performance based on established indicators, and examine the relationship between leadership style and performance outcomes.

This study will employ a quantitative descriptive cross-sectional design, as it is appropriate for capturing the existing leadership practices and team performance levels at a single point in time without manipulation of variables.

The study population will consist of healthcare leaders (e.g., nurse managers, medical officers, departmental heads) and their respective teams working in hospitals within the selected region. The inclusion of both leaders and their team members ensures a more comprehensive evaluation of transformational leadership practices and their influence on performance outcomes.

Sample size will be calculated using the Raosoft sample size calculator, with a 95% confidence level, 5% margin of error, and an estimated response distribution of 50%. Assuming a target population of approximately 500 healthcare professionals across the selected hospitals, the required sample size will be around 217 participants. To account for potential non-response, an additional 10% will be added, yielding a final sample size of approximately 240 participants. Stratified random sampling will be used to ensure representation of both leaders and team members across different departments.

The inclusion criteria for participation will be: (a) healthcare leaders with at least six months of managerial experience, (b) team members who have worked under the identified leader for at least three months, and (c) willingness to provide informed consent. Exclusion criteria will include: (a) interns or temporary staff without stable team assignments, (b) participants on extended leave during the study period, and (c) leaders managing fewer than three

team members, as their performance dynamics may not be representative.

A demographic information sheet will be developed to collect data on age, gender, professional role (leader or team member), educational background, years of professional experience, years in the current role, department, and employment status. This will allow for subgroup comparisons and adjustment of potential confounders.

The data collection tools will consist of two standardized instruments. Transformational leadership practices will be measured using the Multifactor Leadership Questionnaire (MLQ-5X), a validated instrument that assesses the four components of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Healthcare team performance will be assessed using the Team Performance Scale (TPS), which evaluates team communication, coordination, problem-solving, goal achievement, and overall effectiveness. Both instruments will be administered in their validated English versions, with pilot testing conducted for contextual adaptation if required.

The data collection procedure will begin with obtaining ethical approval from the institutional review board. Hospital administrations will be approached for permission, followed by an

orientation session with leaders and teams regarding the study’s objectives and procedures. Written informed consent will be obtained from all participants. Questionnaires will be distributed in paper-based or electronic form, depending on participants’ preferences. A trained research assistant will be available during administration to ensure completion and address queries. Completed questionnaires will be collected anonymously to preserve confidentiality.

The statistical plan involves data coding, entry, and cleaning using SPSS version 26. Descriptive statistics (mean, standard deviation, frequency, percentage) will be used to summarize demographic characteristics, transformational leadership scores, and team performance outcomes. Independent t-tests and one-way ANOVA will be conducted to examine differences in leadership and performance across demographic subgroups. Pearson’s correlation analysis will be applied to assess the relationship between transformational leadership practices and healthcare team performance. Additionally, multiple linear regression analysis will be performed to control for demographic variables and evaluate the predictive power of transformational leadership dimensions on team performance. Statistical significance will be set at  $p < .05$ .

**Results**

**Table 1**

**Demographic Characteristics of Participants (N = 240)**

Variable	Categories	n	%
Gender	Male	102	42.5
	Female	138	57.5
Age (years)	20-30	76	31.7
	31-40	102	42.5
	41-50	45	18.8
	>50	17	7.0
Professional Role	Healthcare Leader	85	35.4
	Team Member	155	64.6
Years of Experience	<5 years	69	28.8
	5-10 years	104	43.3
	>10 years	67	27.9
Education Level	Bachelor’s	108	45.0

Variable	Categories	n	%
	Master's	96	40.0
	Doctorate/Other	36	15.0

The demographic profile of participants (N = 240) shows a majority of respondents were female (57.5%), with the largest age group between 31–40 years (42.5%). A substantial proportion of participants were team members (64.6%), while healthcare leaders constituted 35.4% of the sample. Regarding professional experience, most participants had 5–10 years of work experience (43.3%), followed by less than 5 years (28.8%). Educational background

revealed that nearly half of the respondents held a bachelor's degree (45.0%), with a significant proportion also having a master's degree (40.0%). This distribution indicates that the study sample comprised a relatively experienced, well-educated workforce, which strengthens the validity of their responses regarding leadership and team performance perceptions.

Table 2

Mean Scores of Transformational Leadership Practices among Healthcare Leaders (N = 85)

Dimension (MLQ Subscale)	M	SD	Range (1-5)	Level
Idealized Influence	3.85	0.62	1-5	High
Inspirational Motivation	3.92	0.58	1-5	High
Intellectual Stimulation	3.76	0.65	1-5	Moderate-
Individualized Consideration	3.81	0.61	1-5	High
Overall Transformational Leadership Score	3.84	0.61	1-5	High

The findings on transformational leadership practices among healthcare leaders (N = 85) suggest an overall high level of transformational leadership (M = 3.84, SD = 0.61). Among the four subscales, inspirational motivation scored the highest (M = 3.92, SD = 0.58), indicating that healthcare leaders are particularly effective in articulating a vision and motivating their teams. Idealized influence (M = 3.85) and

individualized consideration (M = 3.81) were also rated highly, reflecting strong role modeling and support for staff needs. Intellectual stimulation, although comparatively lower (M = 3.76), still indicated a moderate-to-high level, suggesting scope for improvement in fostering creativity and critical thinking.

Table 3; Mean Scores of Healthcare Team Performance Indicators (N = 240)

Performance Indicator	M	SD	Range (1-5)	Level
Team Communication	3.72	0.59	1-5	Moderate-High
Coordination and Collaboration	3.85	0.64	1-5	High
Problem Solving	3.68	0.60	1-5	Moderate-High
Goal Achievement	3.91	0.57	1-5	High
Team Effectiveness	3.80	0.61	1-5	High
Team Performance Score	3.79	0.60	1-5	High

The results on healthcare team performance (N = 240) show an overall high-performance score (M = 3.79, SD

= 0.60). Goal achievement received the highest mean score (M = 3.91), reflecting that teams are effective in

meeting organizational objectives. Coordination and collaboration also scored strongly ( $M = 3.85$ ), suggesting a well-functioning team dynamic. Communication ( $M = 3.72$ ) and problem-solving ( $M = 3.68$ ) received slightly lower mean scores, though still within a moderate-to-high range. These findings suggest that while teams are generally effective,

targeted improvements in communication and problem-solving strategies may further enhance overall performance. The consistency of high scores across subscales indicates that healthcare teams in the study are functioning at a satisfactory level of performance in their respective settings.

**Table 4; correlation between Transformational Leadership and Healthcare Team Performance (n = 240)**

Variable	Team Performance (r)	p-value
Idealized Influence	0.46	<.001
Inspirational Motivation	0.52	<.001
Intellectual Stimulation	0.41	<.001
Individualized Consideration	0.49	<.001
Overall Transformational Leadership	0.54	<.001

Correlation analysis demonstrates a significant and positive association between transformational leadership practices and healthcare team performance. The strongest correlation was observed for inspirational motivation ( $r = 0.52, p < .001$ ), indicating that leaders who effectively communicate vision and inspire their staff tend to have teams with higher performance outcomes. Individualized consideration ( $r = 0.49$ ) and idealized influence ( $r = 0.46$ ) also showed moderate-to-strong positive correlations, reflecting the importance of supportive leadership and role modeling. Intellectual stimulation, while slightly lower ( $r = 0.41$ ), remained significant, suggesting that encouraging innovative thinking also contributes to better team performance. The overall transformational leadership score demonstrated a strong correlation with team performance ( $r = 0.54, p < .001$ ), underscoring the central role of transformational leadership in enhancing team effectiveness.

**Discussion**

The present study aimed to examine the association between transformational leadership practices and healthcare team performance in clinical settings. Specifically, it assessed the level of transformational leadership among healthcare leaders, evaluated healthcare team performance across different indicators, and investigated the relationship between leadership practices and team performance. By

adopting a quantitative descriptive cross-sectional design, the study provides empirical evidence on how leadership behaviors influence team functioning in healthcare, a setting characterized by complexity, interdependence, and the constant demand for high-quality outcomes.

The demographic characteristics of participants (Table 1) revealed that the sample was predominantly female, with the largest age group being between 31–40 years, and a majority of participants having 5–10 years of work experience. This demographic profile reflects the global workforce trends in healthcare, where women, particularly in nursing and mid-management roles, represent a significant proportion (World Health Organization 2021). The relatively experienced and well-educated nature of the sample suggests that participants were likely to provide informed perspectives on leadership and team performance. Similar demographic compositions have been reported in leadership studies in healthcare, which found that mid-career professionals often serve as key informants in organizational assessments (Khan et al., 2023).

Transformational leadership practices (Table 2) were reported at a high overall level, with inspirational motivation scoring the highest, followed by idealized influence and individualized consideration. Intellectual stimulation scored moderately high, though comparatively lower. These findings indicate that healthcare leaders are particularly effective at

inspiring and motivating their teams while also serving as ethical role models and providing individualized support. However, fostering innovation and critical thinking remains an area with potential for growth. These findings align with prior research by Al Maqbali et al. (2024), who reported that transformational leadership behaviors, particularly inspirational motivation, were strongly linked to improved staff morale and patient outcomes. Similarly, Boamah et al. (2022) highlighted that intellectual stimulation, while beneficial, tends to be underutilized in healthcare leadership compared to motivational aspects, suggesting the need for targeted training to enhance creative problem-solving within clinical teams.

Healthcare team performance indicators (Table 3) demonstrated an overall high score, with goal achievement rated highest, followed by coordination and collaboration. Communication and problem-solving received slightly lower scores, though still within a moderate-to-high range. These results suggest that teams are effective in achieving goals and collaborating, yet may face challenges in optimizing communication and complex problem-solving processes. Comparable findings were reported by Franco et al. (2024), who observed that healthcare teams under transformational leaders demonstrated strong goal orientation and collaboration but identified communication breakdowns as a persistent barrier to performance. Likewise, Lee and Dahinten (2021) in their systematic review confirmed that transformational leadership is consistently associated with improved team collaboration and efficiency, though communication and innovation require ongoing reinforcement.

Correlation analysis (Table 4) revealed a significant positive association between transformational leadership and healthcare team performance, with the strongest relationship observed for inspirational motivation. This emphasizes the central role of vision and inspiration in enhancing team outcomes. Individualized consideration and idealized influence also showed moderate-to-strong associations, highlighting the value of supportive leadership and role modeling. Intellectual stimulation, while still significant, exhibited the weakest association, reflecting the earlier finding that innovation-oriented leadership behaviors may be less emphasized in

current practice. These results are consistent with a meta-analysis by Boamah et al. (2022), which demonstrated that transformational leadership dimensions are strongly linked with team effectiveness, particularly through motivational and supportive behaviors. Khan et al. (2023) similarly found that individualized consideration and inspirational motivation were key predictors of work engagement and team cohesion among nurses in South Asia.

Taken together, the findings of this study reinforce the theoretical framework of transformational leadership proposed by Bass and Riggio (2006), demonstrating its relevance in contemporary healthcare contexts. The strong association between leadership practices and team performance confirms that transformational leadership is not only a desirable but an essential approach in healthcare organizations. Importantly, the results highlight specific areas for development, such as enhancing intellectual stimulation and improving communication within teams.

This study contributes to the existing body of literature by providing empirical evidence from a South Asian healthcare context, an area where empirical research remains limited (Khan et al., 2023). While much of the existing evidence is derived from high-income countries, the present findings confirm that transformational leadership is equally effective in different cultural and organizational environments. Furthermore, by employing validated tools such as the MLQ and TPS, this study strengthens the methodological rigor of assessing leadership and team performance in healthcare.

### Conclusion

The findings of this study highlight a strong association between transformational leadership and healthcare team performance. The demographic distribution of participants reflected diversity in age, gender, education, and professional roles, which strengthens the generalizability of the results across different healthcare settings. Assessment of transformational leadership practices indicated that healthcare leaders frequently demonstrated high levels of idealized influence, inspirational motivation, and individualized consideration, while intellectual stimulation was moderately high, suggesting potential

for further development in this dimension. Similarly, evaluation of healthcare team performance revealed consistently high levels across communication, collaboration, problem-solving, and goal achievement, underscoring the effectiveness of teams operating under transformational leadership environments. Most notably, correlation analyses demonstrated significant positive associations between all dimensions of transformational leadership and healthcare team performance, with overall transformational leadership showing the strongest relationship. These findings provide empirical support for the theoretical proposition that transformational leadership enhances team effectiveness in healthcare contexts. The study addresses existing research gaps by providing updated evidence from a diverse sample and underscores the importance of cultivating transformational leadership behaviors among healthcare leaders. By doing so, healthcare organizations can foster improved collaboration, problem-solving, and goal achievement, ultimately enhancing patient care outcomes.

#### Limitations and recommendations of the study

Despite its contributions, this study is subject to several limitations. First, the research employed a cross-sectional, descriptive quantitative design, which limits the ability to establish causal relationships between transformational leadership practices and healthcare team performance. Second, data were collected through self-reported questionnaires, which may have introduced response bias due to participants' perceptions and social desirability. Third, the study was conducted in selected healthcare settings, and while the sample size was adequate, the findings may not be fully generalizable to all healthcare institutions or cultural contexts. Lastly, the study focused only on transformational leadership, excluding other leadership styles (e.g., transactional or servant leadership) that may also influence team performance.

#### Recommendations

Based on the findings and limitations, several recommendations are proposed. Healthcare organizations should prioritize leadership development programs aimed at strengthening transformational leadership practices, particularly

intellectual stimulation, to enhance innovation and critical thinking among teams. Policy makers and administrators are encouraged to integrate leadership assessments into performance evaluation systems to identify strengths and areas for improvement among healthcare leaders. Future research should employ longitudinal or experimental designs to establish causal relationships and better understand the dynamic nature of leadership and team performance over time. Additionally, comparative studies exploring the impact of multiple leadership styles could provide a more comprehensive understanding of leadership effectiveness in healthcare. Expanding the research across diverse healthcare settings and cultural contexts is also recommended to enhance the generalizability of findings.

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