

Original Research

Received 9 December 2025

Revised 12 January 2026

Accepted 29 January 2026

Natural Resources for Human
Health 2026, Vol. 6 (13s): 1321–1326

KEYWORDS:

Transformational leadership;

Transactional leadership;

Participative leadership; Healthcare
employees; Saudi Arabia.

A Comparative Analysis of Transformational, Transactional, and Participative Leadership Style Preferences in Saudi Healthcare

Mohammad Adndn M Arif * and Gunavathy Selvarajh

Faculty of Health and Applied Science, Lincoln University College, Selangor, Malaysia.

Corresponding author: arifadndn.phdscholar@lincoln.edu.my

ABSTRACT: This study aimed to compare transformational, transactional, and participative leadership styles among healthcare employees in selected hospitals in Mecca and Madina, Saudi Arabia. A quantitative, cross-sectional research design was employed using a structured questionnaire. The questionnaire measured the three leadership styles through 15 items using a five-point Likert scale, with five items representing each leadership style. Data were collected from 200 respondents and analysed using descriptive statistics and a one-way repeated-measures analysis of variance. The results showed that transformational leadership recorded the highest mean score ($M = 3.920$, $SD = 1.050$), followed by transactional leadership ($M = 3.904$, $SD = 1.053$) and participative leadership ($M = 3.889$, $SD = 1.087$). However, the repeated-measures ANOVA indicated that the differences among the three leadership styles were not statistically significant, $F(1.824, 362.878) = 0.509$, $p = .585$, partial $\eta^2 = .003$. These findings suggest that respondents perceived the three leadership styles at broadly similar levels. Although transformational leadership had the highest descriptive mean, it was not significantly different from transactional or participative leadership. The findings highlight the importance of considering the three leadership styles as complementary approaches within healthcare organisations.

1. INTRODUCTION

Leadership plays a central role in shaping the effectiveness, adaptability, and sustainability of healthcare organizations. Healthcare professionals work in complex environments characterized by increasing service demands, multidisciplinary collaboration, technological development, and the continuous need to maintain high standards of patient care (Braithwaite et al., 2017). In this context, leadership extends beyond administrative supervision. It also includes motivating employees, coordinating teams, encouraging innovation, establishing clear expectations, and supporting organizational change (Mansaray, 2019).

Different leadership approaches may influence how healthcare professionals respond to workplace responsibilities and organizational priorities. Transformational leadership emphasizes the development of a shared vision, employee inspiration, creative thinking, individualized support, and the motivation to exceed expectations (Gupta, 2025). Transactional leadership focuses on clearly defined goals, performance monitoring, rewards, corrective action, and compliance with established procedures (Mendoza et al., 2023). Participative leadership emphasizes employee involvement, consultation, collaborative decision-making, open discussion, and the sharing of suggestions (Wang et al., 2022). Each approach reflects a different method of guiding employees and managing organizational activities, and each may be relevant to the operational and professional needs of healthcare organizations.

The Saudi healthcare sector is experiencing substantial organizational and technological development. It creates a growing need for leadership approaches that can support employees while maintaining accountability, teamwork, and service quality. Although transformational, transactional, and participative leadership have been examined in previous organizational and

healthcare studies, these approaches are frequently investigated separately or in relation to particular organizational outcomes (Aboramadan & Kundi, 2020). Comparatively less attention is given to examining healthcare professionals' preferences for these leadership styles within the same organizational context. A direct comparison may provide a clearer understanding of whether healthcare professionals demonstrate a stronger preference for one leadership approach or value a combination of leadership characteristics.

Accordingly, this study aims to compare healthcare professionals' preferences for transformational, transactional, and participative leadership styles in Saudi Arabia. Specifically, the study seeks to determine the mean preference score for each leadership style and examine whether statistically significant differences exist among the three leadership style preference scores. Through this comparison, the study is expected to contribute to a more balanced understanding of leadership preferences in healthcare and provide useful insights for leadership development and management practices within Saudi healthcare organizations.

2. MATERIALS AND METHODS

2.1 Research Design

This study employed a quantitative, cross-sectional research design. A quantitative approach was selected because the study used numerical data collected through a structured questionnaire and analysed the data using statistical procedures. The cross-sectional design was used because data were collected from respondents at one point in time.

The main purpose of the study was to compare the mean scores of transformational, transactional, and participative leaderships. Since the same respondents assessed all three leadership styles, the study used a repeated-measures design.

2.2 Research Setting and Population

The study was conducted in selected hospitals in Mecca and Madina, Saudi Arabia. The selected hospitals were King Faisal Hospital, King Abdulaziz Hospital, and Al Noor Hospital. The study focused on employees working in the healthcare sector who had experience with healthcare operations and were familiar with leadership practices within their organisations. The healthcare sector was selected because leadership is important in coordinating employees, supporting organisational performance, encouraging innovation, and managing changes in healthcare services. The study specifically focused on how respondents perceived transformational, transactional, and participative leadership practices in their workplace. The study included employees who had at least one year of working experience in the healthcare sector and voluntarily agreed to participate. Employees with less than one year of experience, employees from hospitals outside the selected institutions, and respondents who submitted incomplete questionnaires were excluded from the study.

2.3 Sampling Technique and Sample Size

The study used a random sampling technique to select respondents from the selected hospitals. Random sampling was used to provide eligible employees with an opportunity to participate in the study and to reduce the possibility of selection bias. A total of 200 valid responses were included in the analysis.

2.4 Research Instrument

Data were collected using a structured questionnaire. The questionnaire was adapted from previously developed measurement items related to transformational, transactional, and participative leadership. The items were reviewed and adjusted to ensure that they were suitable for the healthcare context in Saudi Arabia. The questionnaire consisted of two main sections. The first section collected demographic information about the respondents. The second section measured the three leadership styles examined in the study. Transformational leadership was measured using five items that assessed the leader's ability to communicate a clear vision, inspire employees, encourage creative thinking, provide individual support, and motivate employees to exceed expectations. Transactional leadership was measured using five items that assessed the clarification of goals and expectations, the use of rewards, performance monitoring, corrective actions, and employee compliance with organisational requirements (Judge & Piccolo, 2004). Participative leadership was measured using five items that assessed employee involvement in decision-making, the consideration of team input, collaborative strategy development, open discussion, and the encouragement of employee suggestions (Somech, 2006). Therefore, the questionnaire contained 15 leadership-related

measurement items, with five items representing each leadership style. All leadership items were measured using a five-point Likert scale. The response options ranged from 1 to 5, as follows:

Scale	Interpretation
1	Strongly disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly agree

A higher score indicated a stronger perception of the relevant leadership style. The same response scale was used for all 15 leadership items to ensure consistency in measurement.

2.5 Data Collection Procedure

The questionnaire was distributed to eligible employees working in the selected hospitals. Respondents were informed about the purpose of the study and were invited to participate voluntarily. Participation was based on informed agreement, and respondents were allowed to complete the questionnaire independently.

After the questionnaires were collected, the responses were coded and entered into the statistical software for analysis. The dataset was checked for incomplete responses, inconsistent answers, and possible data-entry errors before the statistical analysis was conducted.

2.6 Data Analysis and Ethical Considerations

The data were analysed using descriptive and inferential statistics. Mean and standard deviation were calculated to summarise respondents' perceptions of transformational, transactional, and participative leadership. Since the same 200 respondents rated all three leadership styles, a one-way repeated-measures analysis of variance (ANOVA) was conducted to determine whether significant differences existed among the three mean scores. Participation in the study was voluntary, and respondents were informed of the study purpose and the confidentiality of their responses. Data were used solely for academic purposes and reported in aggregate form to protect respondents' privacy.

3. RESULTS

A one-way repeated-measures analysis of variance (ANOVA) was conducted to examine whether respondents' ratings differed across transformational, transactional, and participative leadership, based on the mean scores calculated from the five items measuring each leadership style. Mauchly's test of sphericity was statistically significant, $W = 0.903$, $\chi^2(2) = 20.156$, $p < .001$, indicating that the assumption of sphericity was violated. Therefore, the Greenhouse–Geisser correction was applied when interpreting the repeated-measures ANOVA results. As shown in Table 2, the Greenhouse–Geisser-corrected results indicated that the differences among the three leadership styles were not statistically significant, $F(1.824, 362.878) = 0.509$, $p = 0.585$, partial $\eta^2 = 0.003$. Since the p -value was greater than 0.05, the null hypothesis of equal mean ratings across the three leadership styles was not rejected.

The descriptive results in Table 1 show that transformational leadership obtained the highest mean score ($M = 3.920$, $SD = 1.05$), followed by transactional leadership ($M = 3.904$, $SD = 1.05$) and participative leadership ($M = 3.889$, $SD = 1.09$). Thus, transformational leadership may be described as the most preferred leadership style descriptively. However, the repeated-measures ANOVA indicated that the differences were not statistically significant. Therefore, the findings do not provide sufficient statistical evidence to conclude that respondents significantly preferred one leadership style over the other two.

Table 1. Descriptive Statistics of Leadership Styles

Leadership style	Mean	Standard deviation	Descriptive rank
Transformational Leadership	3.920	1.05	1
Transactional Leadership	3.904	1.05	2
Participative Leadership	3.889	1.09	3

Note. The descriptive rank is based on the mean score, with Rank 1 representing the highest mean.

Table 2. Repeated-Measures ANOVA for Leadership Styles

Source	F	df1	df2	p-value	Partial η^2	Decision
Leadership styles	0.509	1.824	362.878	.585	.003	Not significant

Note. The Greenhouse–Geisser correction was applied because Mauchly’s test of sphericity was significant, $W = 0.903$, $\chi^2(2) = 20.156$, $p < 0.001$. The significance level was set at $p < 0.05$.

4. DISCUSSION

The findings of this study showed that transformational leadership recorded the highest mean score among the three leadership styles, with a mean of 3.920 and a standard deviation of 1.050. Transactional leadership followed with a mean of 3.904 and a standard deviation of 1.053, while participative leadership recorded a mean of 3.889 and a standard deviation of 1.087. These results indicate that respondents generally perceived all three leadership styles positively, as the mean scores were above the midpoint of the five-point Likert scale. This finding is consistent with healthcare leadership literature highlighting transformational leadership as an important approach for supporting employee motivation, organisational change, and healthcare performance (Tsapnidou et al., 2024).

Although transformational leadership obtained the highest descriptive mean, the difference between the three leadership styles was very small. This suggests that respondents did not strongly favour one leadership style over the others. The relatively similar mean scores may indicate that healthcare employees experience a combination of leadership practices in their organisations. For example, leaders may provide inspiration and encouragement while also setting clear expectations, monitoring performance, and involving employees in decision-making. This is consistent with Xenikou (2017), who demonstrated that transformational and transactional leadership represent distinct but potentially complementary leadership behaviours rather than necessarily competing approaches.

The repeated-measures ANOVA confirmed that the differences among the three leadership styles were not statistically significant. The Greenhouse–Geisser-corrected result was $F(1.824, 362.878) = 0.509$, with $p = .585$. Since the p-value was greater than the significance level of 0.05, the null hypothesis was not rejected. Therefore, there was no significant difference between respondents’ perceptions of transformational, transactional, and participative leadership.

The effect size was also very small, with a partial eta squared value of .003. This indicates that only a negligible proportion of the variance in the leadership-style scores was associated with differences among the three styles. Consequently, the slightly higher mean score for transformational leadership should be interpreted as a descriptive tendency rather than evidence that transformational leadership was significantly preferred over transactional or participative leadership.

The findings may reflect the practical nature of leadership in healthcare organisations. Healthcare employees often require inspirational leadership to support change and innovation, transactional leadership to maintain clear procedures and performance standards, and participative leadership to encourage teamwork and employee involvement (Yildirim, 2025). Therefore, the similar scores may suggest that these leadership styles are viewed as complementary rather than mutually exclusive. Previous research has similarly emphasised the value of participative leadership in promoting employee involvement and collaborative decision-making, particularly in complex organisational environments (Ayesuwa & Okwuokei, 2023)).

Overall, the results indicate that the respondents perceived transformational, transactional, and participative leadership at broadly comparable levels. The study therefore does not provide statistical evidence that one of the three leadership styles was

more strongly perceived than the others among the participating healthcare employees. The findings should be interpreted within the context of the selected hospitals and the 200 respondents included in the study.

5. CONCLUSION

This study found no statistically significant difference among transformational, transactional, and participative leadership styles among healthcare employees in the selected hospitals in Saudi Arabia. Although transformational leadership recorded the highest mean score, the differences among the three styles were minimal. The findings suggest that the three leadership styles may be perceived as complementary approaches in healthcare organisations.

ACKNOWLEDGEMENTS

The authors acknowledge the technical assistance provided by the Lincoln University College, Selangor, Malaysia.

AUTHOR CONTRIBUTIONS

Mohammad A.M Arif: Conceptualization, Investigation, Methodology, Data Curation, Formal Analysis, and Writing

Gunavathy S.: Supervision, Review & Editing.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ETHICS STATEMENT

Ethical approval was not required for this study.

DATA AVAILABILITY STATEMENT

Data supporting the findings of this study are available from the corresponding author upon reasonable request.

REFERENCES

- [1] Aboramadan, M., & Kundi, Y. M. (2020). Does transformational leadership better predict work-related outcomes than transactional leadership in the NPO context? Evidence from Italy. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, 31(6), 1254-1267.
- [2] Ayesuwa, O., & Okwuokei, F. N. (2023). Participative leadership and organizational performance. *International Journal of Economics, Environmental Development and Society*, 4(3), 371-383.
- [3] Braithwaite, J., Churruarín, K., Ellis, L. A., Long, J., Clay-Williams, R., Damen, N., ... & Ludlow, K. (2017). *Complexity science in healthcare*. Sydney: Australian Institute of Health Innovation, Macquarie University.
- [4] Gupta, P. (2025). Transformational leadership: inspiring change and innovation. *International Journal of Science and Research (IJSR)*, 14(2), 504-509.
- [5] Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: a meta-analytic test of their relative validity. *Journal of applied psychology*, 89(5), 755.
- [6] Mansaray, H. E. (2019). The role of leadership style in organisational change management: a literature review. *Journal of Human Resource Management*, 7(1), 18-31.
- [7] Mendoza Solis, M., García Alcaraz, J. L., Avelar Sosa, L., & Manotas Duque, D. F. (2023). The role of transactional leadership in the social performance of the maquiladora industry. *Revista Brasileira de Gestão de Negócios*, 25(2), 215-233.
- [8] Somech, A. (2006). The effects of leadership style and team process on performance and innovation in functionally heterogeneous teams. *Journal of management*, 32(1), 132-157.
- [9] Tsapnidou, E., Kelesi, M., Rovithis, M., Katharakis, G., Gerogianni, G., Dafogianni, C., ... & Stavropoulou, A. (2024). Transformational leadership—quality achievements and benefits for the healthcare organizations: a scoping review. *Hospitals*, 1(1), 87-103.
- [10] Wang, Q., Hou, H., & Li, Z. (2022). Participative leadership: A literature review and prospects for future research. *Frontiers in psychology*, 13, 924357.

- [11] Xenikou, A. (2017). Transformational leadership, transactional contingent reward, and organizational identification: The mediating effect of perceived innovation and goal culture orientations. *Frontiers in psychology*, 8, 1754.
- [12] Yildirim, S. (2025). The effect of leadership styles on organizational growth in health care organizations. *Ipek Yolu*, 2, 67-86.