Open Access

Original Article

Relationship Between Leadership Styles And Emotional Intelligence Level Among Medical Educationists In Medical Institutions of Punjab

Asma Mahmood, Naushaba Sadiq

Department of Health Professions Education, National University of Medical Sciences (NUMS), Rawalpindi Pakistan

ABSTRACT

Objective: To explore the relationship of leadership styles with the emotional intelligence level of medical educationists working in medical institutes of Punjab.

Study Design: Cross-sectional study.

Place and Duration of the Study: Medical colleges and universities in Punjab, Pakistan, from May 2024 to Sep 2024.

Methodology: A cross-sectional study was carried out through universal sampling involving 30 medical educationists in leadership roles across various medical institutions in Punjab. The Genos Emotional Intelligence Inventory (Concise), with 31 items, and the Multifactor Leadership Questionnaire by Avolio and Bass, with 45 items, were used to determine the relationship of their leadership style with their emotional intelligence level.

Results: The analysis yielded a significant positive correlation between emotional intelligence and transformational leadership (r=0.887) with *p*-value of <0.001, suggesting that elevated levels of emotional intelligence are associated with a greater prevalence of transformational leadership behaviors. Conversely, a negative correlation was identified between emotional intelligence and transactional leadership (r=-0.702), indicating that higher emotional intelligence correlates with a diminished reliance on transactional leadership styles. No significant correlation was established between emotional intelligence and laissez-faire leadership (r=-0.281).

Conclusion: The study highlights the importance of emotional intelligence in effective leadership within medical education, recommending tailored development programs to cultivate this skill among educationists. Strengthening emotional intelligence could foster supportive learning environments and enhance outcomes for students and faculty alike.

Keywords: Emotional Intelligence, Transactional Leadership, Laissez-faire leadership, Medical Educationists, Transformational Leadership.

How to Cite This Article: *Mahmood A, Sadiq N. Relationship Between Leadership Styles And Emotional Intelligence Level Among Medical Educationists In Medical Institutions of Punjab. Pak Armed Forces Med J 2025; 75(6): 1187-1191. DOI: https://doi.org/10.51253/pafmj.v75i6.13426*

INTRODUCTION

The evolution of medical education is intrinsically linked to the dynamic demands of healthcare, a progression significantly shaped by the forces of globalization. In Pakistan, medical educationists encounter challenges, including restricted resources, excessive workloads, low levels of job satisfaction,[1] and resistance from faculty members.[2] In order to effectively address these challenges, the establishment of robust leadership frameworks within educational institutions is essential for guiding the processes of change. Effective leaders cultivate collaborative environments, inspire their teams, and adeptly navigate complex challenges, elements that are indispensable for the realization of organizational objectives.[4] However, leadership extends beyond mere operational effectiveness, encompassing the management of emotional dynamics that are integral to workplace interactions. Emotional intelligence, an essential trait for leaders, is the capacity to identify, manage, and influence emotional states.[5] Emotional intelligence has emerged as a critical factor in promoting constructive interactions among faculty, administrators, and students.[6] It is believed to enhance transformational leadership, a genre of leadership distinguished by its visionary qualities, inspirational capabilities, and focus on the development of subordinates.[7] Extensive research has been conducted to assess the significance of emotional intelligence within leadership roles across diverse sectors.[8] However, limited studies have examined the relationship between these two constructs within the context of Pakistani medical institutions,[9,10] highlighting a significant gap in the local literature, thus justifying the need for this research.

The present study aims to bridge this gap by investigating the relationship between emotional intelligence and leadership styles among medical educationists in Punjab. A deeper understanding of this relationship is anticipated to contribute to the development of leadership training programs,

Correspondence: Dr Asma Mahmood, Department of Health Professions Education, NUMS, Rawalpindi Pakistan

Received: 25 Apr 2025; revision received: 10 Aug 2025; accepted: 11 Aug 2025

augment organizational effectiveness, and better equip educational institutions to confront the pressing challenges facing medical education in Pakistan.

METHODOLOGY

This was a cross-sectional study carried out in different medical institutions of Punjab, Pakistan, from May to Sep 2024, to explore the relationship between emotional intelligence and leadership styles of medical educationists. Due to the limited size of the target population, universal sampling was employed, with a sample size of 30 being attained.

The ethical approval was taken from the Institutional Review Board (IRB) of NUMS (Reference #06/IRB&EC/NUMS/29) on 24th May 2024. A concise and transparent consent form elucidating the study's purpose, methodology, potential risks, and benefits was integrated into a Google Form. This form explicitly delineated participants' rights to withdraw at any point without consequence and stated that the results would be utilized exclusively for academic purposes.

Inclusion Criteria: Medical educationists currently working in medical institutions of Punjab, holding degree of Masters in Health Professions Education, and occupying leadership roles in the Department of Medical Education at their institutions, were included in the study

Exclusion Criteria: Medical educationists with MHPE degrees and leadership roles currently retired or not actively engaged in academic or administrative responsibilities at the time of data collection, and also those who submit incomplete responses to either of study instruments were excluded from the study.

The data collection for this study involved the administration of two self-assessment questionnaires, Genos Emotional Intelligence Inventory,[11] and Multifactor Leadership Questionnaire.[12] Genos Emotional Intelligence Inventory (Concise Version) is a valid and reliable self-assessment tool designed to evaluate seven key competencies of emotional intelligence. It consists of 31 items, rated on a five-point Likert scale. The Cronbach's alpha ranges from 0.76 to 0.90 across the seven domains. It is particularly suitable for leadership and professional development research, making it appropriate for this study.

Multifactor Leadership Questionnaire (MLQ–Form 5X Short) is a valid and reliable tool to measure leadership behavior across three styles: Transformational Leadership, Transactional Leadership, and Laissez-Faire Leadership. This version comprises 45 items, each rated on a five-point Likert scale. It has Cronbach's alpha values of 0.89 for transformational leadership, 0.76–0.84 for transactional leadership, and 0.60–0.65 for laissez-faire leadership.

For this study, both questionnaires were administered as such without modifications. Data collection procedure was executed in two phases. Initially, the Genos Emotional Intelligence Inventory was distributed to participants via Google Forms. A target minimum of 30 participants prompted outreach to 60 individuals, anticipating a 50% response rate. 52 individuals completed the survey, at which point data collection was closed, and analysis commenced. The data underwent critical review, resulting in the removal of ten cases with missing data, as is necessary before conducting statistical calculations. Additionally, 12 participants were excluded from the final analysis for not meeting the pre-defined eligibility criteria for inclusion in the study, leading to a final sample size of 30 cases. Demographic data were also incorporated into the Google Form for potential future research. The Multifactor Leadership Questionnaire was then procured from its publisher, Mind Garden, for 30 participants. The publisher facilitated the distribution of the questionnaire via email to the selected participants.

The collected data were analyzed using SPSS Version 21. Emotional Intelligence (EI) items were categorized into seven subcategories: Emotional Self-Awareness, Emotional Expression, Emotional Awareness of Others, Emotional Reasoning, Emotional Self-Management, Emotional Management of Others, and Emotional Self-Control. Reverse-coded items were adjusted, and scores for each category were calculated by averaging relevant items. The total EI score was obtained by aggregating individual category scores.

The Multifactor Leadership Questionnaire (MLQ) scores were calculated as averages from items within each scale. Each leadership style scale included multiple items—four for transformational and transactional scales, three for Extra Effort, and two for Satisfaction. Composite scales measured transformational leadership, including Idealized Attributes, Inspirational Motivation, and others; transactional leadership measured Contingent Reward and Management-by-Exception (Active); and laissez-faire leadership combined Management-by-Exception (Passive) and Laissez-faire components. Leadership styles were labeled based on averages at the 40th percentile, as per the MLQ manual.

Data was analyzed in the form of Mean scores, standard deviations, median and interquartile range (IQR) were calculated for total Emotional Intelligence levels, its subdomains and leadership styles to provide a more robust summary of central tendency and dispersion. The normality of data distribution for emotional intelligence and leadership styles was assessed using the Shapiro-Wilk test. The results indicated that the data for total Emotional Intelligence (p=0.213), transformational leadership (p=0.151), and transactional leadership (p=0.097) were normally distributed. However, the data for laissez-faire leadership (p=0.012) was found to be positively skewed. The normality of data distribution for emotional intelligence and leadership styles was assessed using the Shapiro-Wilk test. Transformational (p-values 0.325) and Transactional leadership styles demonstrated normal distribution (p-values 0.310), while Laissez-Faire leadership style was found to be positively skewed (p-values 0.001). Pearson's correlation coefficient was used to assess the relationship between emotional intelligence and normally distributed leadership styles, while Spearman's rank correlation was applied for non-normally distributed data. The p-values ≤0.05 were considered as significant.

RESULTS

A total of 30 medical educators, both male and female, were included in this study. All the participants were medical educationists in leadership positions at their institutions in Punjab. Age of participants ranged from 30 to 62 years, with a mean of 48.56+8.58 years. Out of 30 participants, 6(20%) were Male and 24(80%) were female. Experience of the participants ranged from 2–37 years, with a mean of 16.97+11.04 years.

The total Emotional Intelligence yielded a median of 122.50(24.00). The highest median was observed in Emotional Reasoning 21.00(3.00), indicating participants' strength in evaluating emotional information logically. Conversely, the lowest median appeared in Emotional Self-Control 15.50(3.00), suggesting it may be a relative area for improvement. The transformational leadership style exhibited the highest median 4.00(4.00–2.96), followed by the transactional leadership style [Median (IQR): 2.00(3.00–2.00)], and the laissez-faire leadership style [Median (IQR): 0.75(0.94–0.31)] shown in Table-I.

Table-I: Median and Interquartile Ranges of Subdomains of Emotional Intelligence and Leadership Styles (n=30)

Subdomain of Emotional Intelligence	Median (IQR)
Emotional Self-Awareness	17.00(4.00)
Emotional Expression	18.00(5.00)
Emotional Awareness of Others	16.50(5.00)
Emotional Reasoning	21.00(3.00)
Emotional Self-Management	19.00(4.00)
Emotional Management of Others	16.00(4.00)
Emotional Self-Control	15.50(4.00)
Total Emotional Intelligence	122.50(24.00)
Leadership Style	
Transformational leadership style	4.00(1.04)
Transactional leadership style	2.00(1.00)
Laissez-faire leadership style	0.75(0.63)

Emotional Intelligence showed a significant positive correlation with Transformational Leadership (Pearson's r=0.887, p-value = <0.001), indicating that higher emotional intelligence is associated with greater utilization of transformational leadership behaviors. Conversely, a significant negative correlation was found between Emotional Intelligence and Transactional Leadership (Pearson's r=-0.702, p-value = <0.001), suggesting that higher emotional intelligence corresponds to reduced use of transactional leadership. The relationship between Emotional Intelligence and Laissez-Faire leadership style was found to be statistically insignificant (Spearman's ρ=-0.281, p-value =0.139) shown in Table-II.

Table-II: Relationship between Emotional Intelligence and leadership style (n=30)

Leadership Style	Emotional Intelligence	p-value
Transformational	0.887	<0.001
Transactional	-0.702	<0.001
Laissez-Faire	-0.281	0.139

DISCUSSION

This study examined the relationship between emotional intelligence and leadership styles, specifically transformational, transactional, and laissez-faire leadership, among medical education professionals in Punjab. The study indicated a significant positive correlation of emotional intelligence with transformational leadership, a negative correlation with transactional leadership, and no discernible correlation with laissez-faire leadership. These results highlight the role of emotional intelligence as a determinant in shaping transformational leadership behaviors among medical educationists.

The study was designed to explore the degree of relationship between emotional intelligence and transformational leadership style by Ugoani *et al.,* which showed a strong positive correlation of r=.90 between emotional intelligence and transformational leadership style, endorsing this study findings.[13] Evidence supporting the positive relationship between Emotional Intelligence and transformational leadership aligns with studies conducted by Spano *et al.,* and Ontong *et al.,* which found similar results across various organizational settings.[14,15] Additionally, emotional intelligence has been shown to foster effective leadership behaviors among nursing managers as shown by Maamari *et al*.[16] In Pakistan's educational sector, emotionally intelligent leaders have been proven to create a supportive academic environment. This study builds on these findings and addresses a significant gap in the literature by providing specific evidence related to medical educationists in Punjab.

Conversely, the identified negative correlation between emotional intelligence and transactional leadership has been supported by Nyathi *et al.,* who posited that leaders possessing high emotional intelligence may be less inclined to employ transactional methods.[17] However, a study by Thapa *et al.,* indicated a weaker positive correlation, suggesting that contextual elements, such as institutional culture, might impact the interplay between emotional intelligence and transactional leadership.[18] The present study further asserts that medical educationists exhibiting strong emotional intelligence are likely to avoid transactional leadership approaches, reflecting the relational and collaborative demands inherent in their roles.

Lee *et al.,* found that trust in a supervisor mediates the relationships between leader emotional intelligence, transformational leadership, transactional leadership, and job performance. A leader's emotional intelligence is positively related to transformational leadership styles. The study confirms that trust in a supervisor acts as a key mediator, explaining how leadership styles and emotional intelligence affect job performance. This strong positive correlation is aligned with findings of this study.[19] The lack of a significant correlation between emotional intelligence and laissez-faire leadership supports studies conducted by Santa *et al.,* which characterized laissez-faire leadership as indicative of disengagement, which stands in opposition to the fundamental tenets of emotional intelligence. This observation reinforces the limited relevance of laissez-faire leadership among medical educationists.[20]

This research represents a significant contribution to the existing body of literature by concentrating on medical educationists in Punjab, a region that has not been extensively studied in this context. By delineating a robust relationship between emotional intelligence and transformational leadership, the findings suggest the efficacy of emotional intelligence-focused training programs in enhancing leadership effectiveness within the medical education sector. Furthermore, the importance of customizing leadership development initiatives to address the particular challenges and cultural dimensions of medical institutions in Pakistan is emphasized.

The implications of the findings suggest that the cultivation of emotional intelligence in medical educationists can substantially improve transformational leadership behaviors, which are essential for navigating the complex challenges encountered by medical institutions. As such, leadership training curricula should prioritize the development of emotional intelligence to foster supportive and effective academic environments.

LIMITATION OF STUDY

This study was limited by a small sample size, a cross-sectional design, a lack of qualitative insights, and reliance on self-reported data. Furthermore, the study did not account for confounding variables such as participants' age, years of experience, or institutional hierarchy, which could influence both Emotional Intelligence and leadership styles.

CONCLUSION

Transformational leadership was found to have a positive correlation with Emotional Intelligence, indicating that medical educationists with higher Emotional Intelligence levels tend to demonstrate this leadership style. Transactional leadership showed a negative correlation with Emotional Intelligence, suggesting that higher emotional intelligence levels are associated with less use of transactional leadership behaviors. Laissez-faire leadership did not show a significant correlation with Emotional Intelligence. Additionally, medical educationists demonstrated high Emotional Reasoning, reflecting their strength in logically evaluating emotional information. Conversely, they exhibited low Emotional Self-Control, which may be an area for potential improvement.

Conflict of Interest: None.

Disclaimer: The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

Funding Source: None.

Authors' Contribution

Following authors have made substantial contributions to the manuscript as under:

AM & NS: Data acquisition, data analysis, critical review, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

REFERENCES

1. Qureshi SN, Khan RA. Challenges faced by faculty of medical education due to the structural variation in its departments across medical colleges. Pak J Med Health Sci 2023; 17(1): 148-150. https://doi.org/10.53350/pjmhs2023171148
2. Abbasi LS, Yasmeen R, Sajjad T. Challenges faced by health professions educationists en route to educational reforms in Pakistan. J Educ Health Promot 2022; 11: 315. https://doi.org/10.4103/jehp.jehp_204_22
3. McBride K. Leadership in higher education: Handling faculty resistance to technology through strategic planning. Acad Leadersh 2010; 8(4): 41. https://doi.org/10.58809/JMKD5552
4. Spears L. "Reflections on Robert K. Greenleaf and servant-leadership". Leadersh. Organ. Dev. J 1996; 17(7): 33–35. https://doi.org/10.1108/01437739610148367
5. Cherry MG, Fletcher I, O'Sullivan H, et al. Emotional intelligence in medical education: a critical review. Med Educ 2014; 48(5): 468-478. https://doi.org/10.1111/medu.12306
6. Johnson DR. Emotional intelligence as a crucial component to medical education. Int J Med Educ 2015; 6: 179-183. https://doi.org/10.5116/ijme.5654.3044
7. McKimm J, Lieff SJ. Medical education leadership. In: A Practical Guide for Medical Teachers. Elsevier 2021; 343-352.
8. Mahnoor S, Ali A, Zulfiqar A, et al. Assessment of emotional intelligence in facilitators of government and private sector medical college. Pak J Med Health Sci 2023; 17(3): 172-174. https://doi.org/10.53350/pjmhs2023173172
9. Ansari, Aisha N, Asad, Muhammad. Emotional intelligence and leadership styles: a case study of school heads in Pakistan. Int J Leadersh Educ 2023; 1–19. https://doi.org/10.1080/13603124.2023.2276888
10. Gómez-Leal R, Holzer AA, Bradley C, Fernández-Berrocal P, Patti J. The relationship between emotional intelligence and leadership in school leaders: A systematic review. Cambridge Journal of Education. 2022; 52(10): 1-21. https://doi.org/10.1080/0305764X.2021.1927987
11. Palmer BR, Stough C, Harmer R, et al. The Genos Emotional Intelligence Inventory: A measure designed specifically for workplace applications. In: Assessing Emotional Intelligence. Springer 2009; 103-117. https://doi.org/10.1007/978-0-387-88370-0_6
12. MLQ German psychometric properties [Internet]. Kingston (NY): Mind Garden; 2006 [cited 2025 Dec 02]. Available from: https://www.mindgarden.com/documents/MLQGermanPsychometric.pdf
13. Ugoani JN, Amu CU, Kalu EO. Dimensions of emotional intelligence and transformational leadership: A correlation analysis. Indep J Manag Prod 2015; 6(2): 563-584. https://doi.org/10.14807/ijmp.v6i2.278
14. Spano-Szekely L, Griffin MTQ, Clavelle J, et al. Emotional intelligence and transformational leadership in nurse managers. J Nurs Adm 2016; 46(2): 101-108. https://doi.org/10.1097/NNA.0000000000000303
15. Ontong LL. Influence of school administrators' emotional intelligence, leadership style, and school culture on school climate. In: SEAAIR Conference Proceedings. 2021; 18(1): 305-312. https://doi.org/10.7828/ljher.v18i1.1604
16. Maamari BE, Majdalani JF. Emotional intelligence, leadership style, and organizational climate. Int J Organ Anal 2017; 25(2): 327-345. https://doi.org/10.1108/IJOA-04-2016-1010
17. Nyathi, Ashly, Shihomeka, Sadrag. The Relationship Between Emotional Intelligence and Leadership Styles of Managers in Small and Medium Enterprises. 2023; 324-353. https://doi/10.4018/978-1-6684-8822-5.ch017
18. Thapa A, Parimoo D. Transactional leadership style and organizational performance: The moderating role of emotional intelligence. Parikalpana KIIT J Manag 2022; 18(1): 53-70. https://doi.org/10.23862/kiit-parikalpana/2022/v18/i1/212345
19. Lee CC, Yeh WC, Yu Z, Lin XC. The relationships between leader emotional intelligence, transformational leadership, transactional leadership and job performance: A mediator model of trust. Heliyon 2023; 9(8): e18007. https://doi:10.1016/j.heliyon.2023.e18007
20. Santa R, Moros A, Morante D, Rodríguez D, Scavarda A. The impact of emotional intelligence on operational effectiveness: The mediating role of organizational citizenship behavior and leadership. PLoS One 2023; 18(8): e0284752. https://doi:10.1371/journal.pone.0284752