

## Assessment of self-perceived Leadership skills and job satisfaction among the health care provider in a tertiary care hospital, Tamil Nadu, India

Jasmine M<sup>1</sup>, Vinoth Gnana Chellaiyan Devanbu<sup>2</sup>, Divya Ilanchoorian<sup>3</sup>, Aravind Manoharan<sup>4</sup>, Suganthi S<sup>5</sup>

<sup>1-4</sup>Department of Community Medicine, Chettinad Hospital and Research Institute, Chettinad Academy of Research and Education, Kelambakkam, Tamil Nadu

<sup>5</sup>Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Sri Balaji Vidyapeeth (Deemed to be University)

### CORRESPONDING AUTHOR

Dr Vinoth Gnana Chellaiyan Devanbu, Professor, Department of Community Medicine, Chettinad Hospital and Research Institute, Chettinad Academy of Research and Education, Kelambakkam-603103, Tamil Nadu

Email: [drchellaiyan@gmail.com](mailto:drchellaiyan@gmail.com)

### CITATION

Jasmine M Devanbu VGC, Ilanchoorian D, Manoharan A, Suganthi S. Assessment of self-perceived Leadership skills and job satisfaction among the health care provider in a tertiary care hospital, Tamil Nadu, India. Indian J Comm Health. 2024;36(3):398-405.

<https://doi.org/10.47203/IJCH.2024.v36i03.011>

### ARTICLE CYCLE

Received: 01/11/2023; Accepted: 15/04/2024; Published: 30/06/2024

*This work is licensed under a Creative Commons Attribution 4.0 International License.*

©The Author(s). 2024 Open Access

### ABSTRACT

**Background:** The success of an organisation depends upon the employee satisfaction, which in turn is related to the leadership styles. Good medical leadership plays a vital role in building a high-quality healthcare. The objectives of the study are to estimate the self-perceived leadership skills and its impact on the job satisfaction among the health care workers working in a tertiary care hospital, Tamil Nadu. **Material and Methods:** This study, conducted in a Chennai-based private tertiary care hospital, focused on 109 healthcare workers across specialties. It used a cross-sectional design, employing stratified random sampling and validated questionnaires. Data covered demographic profiles, leadership styles- transformational, transactional and laissez faire, and job satisfaction. **Results:** Majority of the study participants were females and doctors. 20.2% study participants had high transformational scores and 79.8% had moderate scores. 52.3% and 47.7% had high and moderate transactional scores respectively. 42.2% and 57.8% had high and moderate laissez-faire score respectively. The leadership scores have significant positive correlation with job satisfaction scores with r value of 0.64, 0.43 for transformational, transactional. **Conclusion:** Leaders with demonstrated transformational skills had a beneficial impact and those who exhibited a laissez-faire attitude had a detrimental impact on job satisfaction among the health professionals.

### KEYWORDS

Leadership, Job Satisfaction, Healthcare, Health Personnel

### INTRODUCTION

The responsibilities of medical leadership are diverse and include making decisions, hiring,

allocating resources, providing medical advice, implementing changes, and enhancing healthcare environments.(1, 2) This is closely

related to suitable and sufficient collaboration as well as sharing decision-making authority.(3) An enjoyable or upbeat emotional state that arises from an evaluation of one's work or work experiences is known as job satisfaction.(4) Research has demonstrated a substantial positive correlation between work satisfaction and leadership styles.(5) Employee happiness is a key factor in an organization's performance and is influenced by the leadership styles inside that company. Work happiness is influenced by internal factors including culture, interpersonal connections, and leadership philosophies.

Transformational leaders are those that inspire admiration and respect in their followers. Examples of such behaviours include idealised influence behaviour [IIb], intellectual stimulation [IS], inspiring motivation [IM], and individualised consideration [IC]. The traits of contingent compensation [Cr] and management by exception active [MEa] are hallmarks of transactional leadership. On the other hand, the traits of laissez-faire leadership include management by exception-passive [MEp] and avoidance of engagement (laissez faire [Lf]).(6)

Since the early 1990s, executives in the healthcare industry have favoured transformational leadership over transactional leadership since the former only encourages and penalises compliance, while the latter only rewards and punishes.(7) Retaining health professionals is still hampered by low motivation and poor teamwork, especially in environments with few resources. Healthcare professionals operating in resource-constrained environments sometimes experience considerable levels of irritation and demotivation due to inadequate and outdated medical resources, restricted possibilities for professional growth, lack of prospects for progress, and extreme workload overload. A high incidence of turnover among healthcare personnel and frequent absence are indicators of this lack of passion.(8) Effective leadership is needed to address these issues, and it may be developed through training or on the job.(9) Two examples of such initiatives are the Caring Together Leadership Programme at the Baylor College of Medicine Children's Foundation-

Uganda and the Leadership for Health World Health Organisation Programme. These courses aim to assist medical professionals in adapting their leadership approaches so they may mentor front-line healthcare providers in building teams, improving organisational dynamics, and cultivating efficient communication. Studies show that the leadership style of the person in control (in-charge) of a healthcare facility can affect how well their subordinate healthcare workers perform. For instance, charismatic leadership creates resilient teams that can overcome the majority of these obstacles and promotes positive working relationships among healthcare professionals.(10) On the other side, too controlling managers may stifle individual initiative and creative thinking, while incompetent facility managers may ignore concerns raised by staff members or choose to ignore them.(11) Bad leadership practices make health workers increasingly dissatisfied, demotivated, and ultimately disconnected from their teams.

Over the past ten years, the healthcare system has seen significant changes in many aspects of the everyday routines of healthcare workers, which has complicated healthcare management. Many healthcare professionals, particularly mid-level providers, may not be happy with their current state of management. Health professionals' unique orientation may be the main reason for their discontent, since it does not align with the requirements of the healthcare systems that exist today.(12) They might quickly grow irritated and unsatisfied with their professions when faced with regular obstacles including funding restrictions and demands for increased accountability for the safety, efficiency, and quality of healthcare. Job satisfaction is impacted by medical leadership abilities that are helpful, supportive, goal-oriented, and participatory.(13) Thus, there may be a link that is interactive between leadership traits and work happiness.

Despite the recognized importance of effective medical leadership in enhancing healthcare quality and provider satisfaction, there remains a gap in understanding how specific leadership styles, such as transformational,

transactional, and laissez-faire, impact healthcare professionals' job satisfaction and overall performance. The existing literature primarily focuses on broad correlations between leadership styles and job satisfaction, often overlooking the specific behaviors and traits associated with each leadership style and their impact on healthcare professionals' experiences.

**Objective:** To estimate the self-perceived leadership skills and its effect on the job satisfaction among the health care workers working in a tertiary care hospital

### **MATERIAL & METHODS**

The study was cross-sectional institutional-based study conducted in a private tertiary care teaching hospital, in Chennai, India conducted for a period of 6 months. The study population consisted of 109 healthcare professionals, including mid-level health practitioners from various specialties, who were employed in both the research location and the rural and urban health facilities associated with the study setting. The inclusion criteria encompassed all healthcare personnel, including doctors, nurse practitioners, technical assistants, multipurpose workers, and physician assistants.

**Sample Size:** The sample size required for the study is calculated using the Cochran's formula by taking the p as 62%(14), and 10 % relative error and 95% confidence interval. 15% of the sample is added to account for the non-response rate and the sample size was arrived at 109. The required sample was obtained through a stratified random sampling method. The health worker population was divided into homogenous strata according to the speciality they were working in, and the population proportion to size sampling was used to allocate numbers in each stratum of study population.

**Study Tool:** The study tool comprised of three sections 1. Profile - Socio-demographic profile of the study participants – Age, sex, designation, experience, previous experience in Government setting, Previous employment details, Exposure to managerial skills workshop

will be collected. 2. Leadership skill questionnaire- measured the leadership styles, Multifactor Leadership Questionnaire was used.(15) This questionnaire measured the dimensions of the leadership styles such as transformational, transactional and Laissez – faire leadership. The self-perceptions of the leadership styles were measure using a 4-point Likert scale. The overall score of 0 – 4, 5 – 8, 9 – 12 are considered as low, moderate and high scores. It is a pre-validated scale with Cronbach's alpha of 0.93 suggesting good reliability. 3. Job Satisfaction- measured the job satisfaction, Minnesota Satisfaction Questionnaire was used.(16) The short form of the questionnaire has 20 items with 5-point Likert scale. It is a pre-validated scale with Cronbach's alpha of 0.86 suggesting good reliability. The questionnaire was in English language and it was self-administered. After obtaining written informed consent, Self-administered questionnaire was given to the participants and data was collected.

In our study on self-perceived leadership skills and job satisfaction among healthcare providers, we implemented several strategies to mitigate social desirability bias. Firstly, we assured participants of anonymity and confidentiality, emphasizing that their responses would be kept confidential and used solely for research purposes. This approach aimed to alleviate concerns about privacy and encourage more genuine and honest feedback. Additionally, we used neutral language in our survey questions to avoid leading or overly positive framing that could influence responses. These measures collectively aimed to reduce the influence of social desirability bias and enhance the validity of our study's findings.

Name and any other identification of the study participants were not collected. The data was collected after getting written informed consent. Confidentiality of study participants was maintained in all the phases of the study.

**Ethical Approval:** Institutional Ethical Committee clearance was obtained (IHEC-II/0091/21).

**Data Collection:** The data were inputted and analysed using the Statistical Package for Social Sciences (SPSS - IBM) software, specifically

version 22. Descriptive statistics, such as frequency and percentage, were calculated for all variables. The mean and standard deviation were calculated for the continuous variables. The Pearson correlation coefficient was employed to assess the associations between leadership styles and work satisfaction. The independent t-test was used to examine the mean difference in leadership scores in relation to baseline attributes. A p value less than 0.05 was deemed statistically significant.

**RESULTS**

Majority of the study participants belonged to the age group of 46 to 55 years of age, followed by less than 35 years. (Table 1)

**Table 1 Demographic profile of the study participants. (N=109)**

| Variables                                    | N (%)     |
|--|-----------|
| <b>Age group</b>                             |           |
| <35  | 29 (26.6) |
| 36-45  | 21(19.3)  |
| 46-55  | 38(34.9)  |
| >56  | 21 (19.3) |
| <b>Gender</b>                                |           |
| Male   | 48(44)    |
| Female                                       | 61(56)    |
| <b>Designation</b>                           |           |
| Doctors                                      | 48(44)    |
| Nurses                                       | 30(27.5)  |
| Technical Assistants                         | 15(13.8)  |
| Multipurpose workers                         | 8(7.3)    |
| Others                                       | 8(7.3)    |
| <b>Work Experience (years)</b>               |           |
| 01-May                                       | 25(22.9)  |
| 06-Oct                                       | 25(22.9)  |
| Nov-15                                       | 37(33.9)  |
| >16  | 22(20.2)  |
| <b>Previous experience in Public service</b> |           |
| Yes  | 31(28.4)  |
| No   | 78(71.6)  |

The mean (SD) values of leadership scores are shown in Table 2. On analysing the overall transformational scores, 20.2% had high scores and 79.8% had moderate scores. 52.3% and 47.7% had high and moderate transactional scores respectively. 42.2% and 57.8% had high and moderate laissez-faire score respectively. The minimum transactional, transformational and lassie faire score was 4.2,4.5 and 4 respectively and the maximum transactional,

transformational and lassie faire score was 9.4, 11.5 and 12 respectively.

**Table 2 The overall transformational, transactional and Laissez – faire scores of the study participants. (n=109)**

| Scales                         | Mean | SD   |
|--------------------------------|------|------|
| Transformational overall score | 7.15 | 1.09 |
| Idealized influence            | 8.58 | 2.23 |
| Inspirational motivation       | 8.42 | 2.17 |
| Intellectual stimulation       | 8.37 | 1.98 |
| Individual consideration       | 8.64 | 2.31 |
| Transactional overall score    | 8.45 | 1.69 |
| Contingent rewards             | 8.3  | 2.29 |
| Management by exception        | 8.61 | 2.08 |
| Laissez-faire score            | 8.27 | 1.57 |

Mean values of parameters of job satisfaction scale are in Table 3

**Table 3 Job Satisfaction scale of the study participants. (n=109)**

| Parameters                         | Mean | SD    |
|------------------------------------|------|-------|
| <b>Ability Utilization</b>         | 3.61 | 1.054 |
| <b>Achievement</b>                 | 3.78 | 1.125 |
| <b>Activity</b>                    | 3.53 | 1.119 |
| <b>Advancement</b>                 | 3.37 | 1.245 |
| <b>Authority</b>                   | 3.61 | 1.162 |
| <b>Company Policies</b>            | 3.47 | 1.143 |
| <b>Compensation</b>                | 3.45 | 1.206 |
| <b>Co-workers</b>                  | 3.56 | 1.174 |
| <b>Creativity</b>                  | 3.60 | 1.195 |
| <b>Independence</b>                | 3.50 | 1.135 |
| <b>Moral Values</b>                | 3.66 | 1.116 |
| <b>Recognition</b>                 | 3.53 | 1.102 |
| <b>Responsibility</b>              | 3.44 | 1.142 |
| <b>Security</b>                    | 3.52 | 1.143 |
| <b>Social status</b>               | 3.61 | 1.216 |
| <b>Social service</b>              | 3.56 | 1.294 |
| <b>Supervision-Human relations</b> | 3.59 | 1.188 |
| <b>Supervision- Technical</b>      | 3.48 | 1.077 |
| <b>Variety</b>                     | 3.52 | 1.143 |
| <b>Working conditions</b>          | 3.61 | 1.216 |
| <b>Overall</b>                     | 3.55 | 0.74  |

The leadership scores have significant positive correlation with job satisfaction scores with r value of 0.64, 0.43 for transformational, transactional. Whereas laissez-faire score had negative correlation with job satisfaction. (Table 4)

**Table 4 Correlation between Leadership scores and Job satisfaction scale. (N=109)**

| Scales                         | Job satisfaction |         |
|--------------------------------|------------------|---------|
|                                | r                | P value |
| Transformational score overall | 0.64             | <0.001  |
| Idealized influence            | 0.43             | <0.001  |
| Inspirational motivation       | 0.44             | <0.001  |
| Intellectual stimulation       | 0.25             | 0.008   |
| Individual consideration       | 0.47             | <0.001  |
| Transactional overall score    | 0.43             | <0.001  |
| Contingent rewards             | 0.30             | 0.001   |
| Management by exception        | 0.36             | <0.001  |
| Laissez-faire score            | -0.56            | <0.001  |

Laissez faire and Job satisfaction

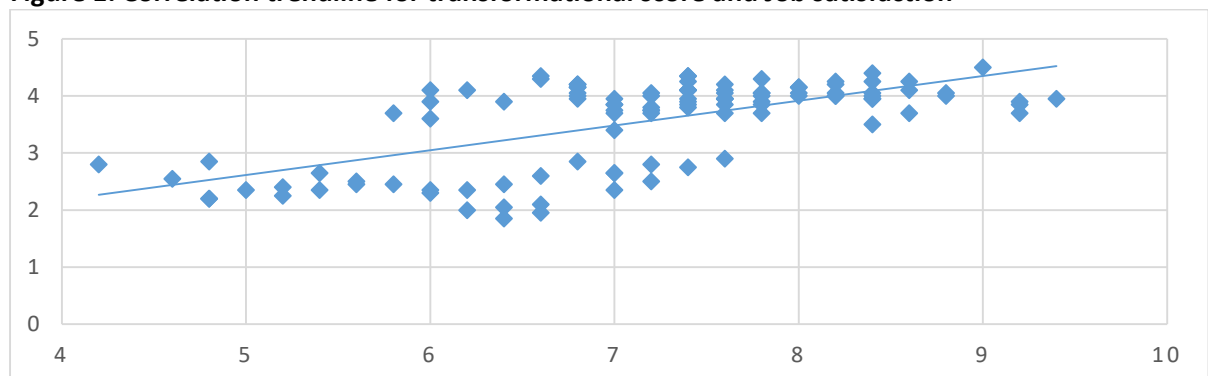
On further analysis, transformational score was higher among those with age more than 46 years, whereas transactional score was higher among those aged 36 to 45 years of age and Laissez faire score was higher among those aged less than 35 years of age. Transformational score and laissez faire were higher among males. Transactional score was higher among females. The transactional and laissez faire leadership scores was higher among those with the past history of government services. The leadership score was higher among those with the history of exposure to leadership skill workshop. (Table 5)

**Table 5. Association of Leadership scores with the demographic profile of the study participants**

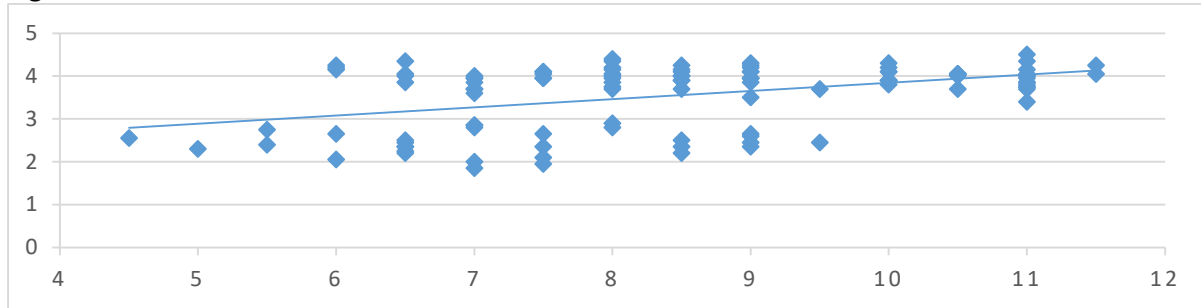
| Variables                                      | Transform-ational score Mean (SD) | Mean difference (95% CI) | P value | Transactional score Mean (SD) | Mean difference (95% CI) | P value |
|--|-----------------------------------|--------------------------|---------|-------------------------------|--------------------------|---------|
| <b>Age group</b>                               |                                   |                          |         |                               |                          |         |
| <45  | 7.132                             | 0.0443 (0.37-0.46)       | 0.463   | 8.55                          | 0.1771 (0.46 - 0.46)     |         |
| >46  | 7.176                             |                          |         | 8.373                         | 0.82)                    |         |
| <b>Gender</b>                                  |                                   |                          |         |                               |                          |         |
| Male   | 7.183                             | 0.0489 (0.37-0.47)       | 0.97    | 8.354                         | 0.1786(0.47 - 0.509)     |         |
| Female   | 7.134                             |                          |         | 8.533                         | 0.82)                    |         |
| <b>Designation</b>                             |                                   |                          |         |                               |                          |         |
| Doctors  | 7.558                             | 0.7190(0.31-1.11)        | 0.003   | 8.969                         | 0.9196(0.29 - 0.514)     |         |
| Other personnel                                | 6.839                             |                          |         | 8.049                         | 1.54)                    |         |
| <b>Work Experience (years)</b>                 |                                   |                          |         |                               |                          |         |
| 01-Oct   | 7.132                             | 0.0443(0.37-0.46)        | 0.463   | 8.55                          | 0.1771 (0.46 - 0.46)     |         |
| >11  | 7.176                             |                          |         | 8.373                         | 0.82)                    |         |
| <b>Previous experience in Public service</b>   |                                   |                          |         |                               |                          |         |
| Yes  | 7.135                             | 0.0286(0.43-0.49)        | 0.816   | 8.839                         | 0.5374(0.17 - 0.176)     |         |
| No   | 7.164                             |                          |         | 8.301                         | 1.24)                    |         |
| <b>Attended workshops on leadership skills</b> |                                   |                          |         |                               |                          |         |
| Yes  | 7.032                             | 0.1609(0.33-0.65)        | 0.35    | 8.28                          | 0.2260 (0.54- 0.216)     |         |
| No   | 7.193                             |                          |         | 8.506                         | 0.99)                    |         |

Independent t test, p value <0.05 is significant.

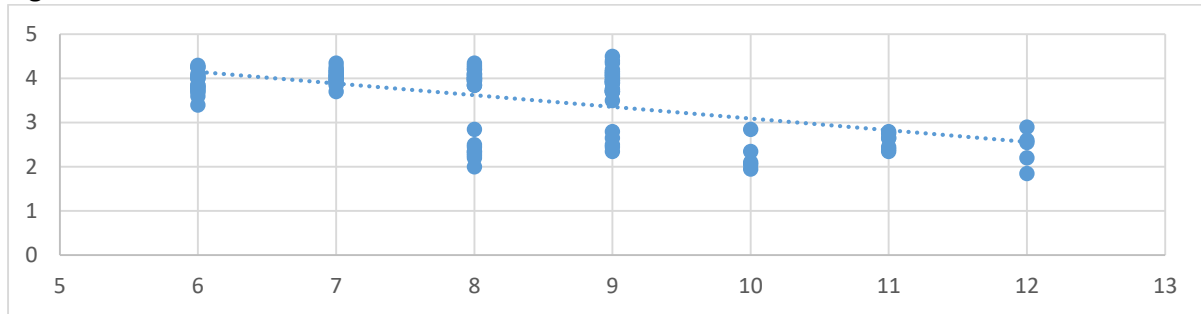
**Figure 1: Correlation trendline for transformational score and Job satisfaction**



**Fig 2: Correlation trendline for transactional score and Job satisfaction**



**Fig 3: Correlation trendline between Laissez-faire and Job satisfaction**



**DISCUSSION**

The three main leadership philosophies that are the subject of this study are transactional, transformational, and laissez-faire. This is because different leadership philosophies have been associated with improved work conditions and higher rates of great professional retention.(17)

The present study has shown that Majority of the study participants belonged to the age group of 46 to 55 years of age, followed by less than 35 years. Majority of the study participants were females. Majority of the study participants were doctors. Only 28.4% of the study participants had past history of Government service and only 22.9% had attended workshops related to managerial skills. Isibor E et al,(18) performed a mixed method study to assess the attitudes, skills and experience of early career doctors with respect to leadership in health care setting. The study showed that 52.7% of the participants stated that taking on leadership roles is a common phenomenon. 91.1% perceived that leadership skills are vital for doctors, 44.1% had no formal training on leadership skills. 23.6% had experienced leadership challenges during their career. On analysing the overall transformational scores, 20.2% had high scores and 79.8% had moderate scores. 52.3% and 47.7% had high and moderate transactional

scores respectively. 42.2% and 57.8% had high and moderate laissez-faire score respectively. The leadership scores have significant positive correlation with job satisfaction scores with r value of 0.64, 0.43 for transformational, transactional. Whereas, laissez-faire score had negative correlation with job satisfaction Transformational score and laissez faire were higher among males. Transactional score was higher among females. The transactional and laissez faire leadership scores was higher among those with the past history of government services.

The findings of a research conducted at a Turkish hospital among 804 staff members of two public hospitals revealed a strong correlation between overall transformational leadership and work happiness.(19) Similar findings were found in another study conducted in Uganda, which included 564 health professionals and examined the link between leadership styles and job motivation and satisfaction.(20) The study's findings indicated that transformational leadership was the favoured type. Job happiness and teamwork were strongly connected with both transformational and transactional leadership (r=0.38 and 0.21, respectively), but job satisfaction and teamwork were positively correlated with transactional leadership (r=0.21) and teamwork (r=0.18). The study

found that ensuring work satisfaction was positively impacted by transformational techniques. Similarly, Deshpande S et al.'s(21) study from examined the relationship between leadership styles and job satisfaction in 67 healthcare professionals. The findings indicated that job satisfaction was positively correlated with both transformational and transactional leadership, with correlations of 0.49 and 0.21, respectively. With correlations of -0.120 and -0.160, respectively, transactional leadership (management by exception) and laissez-faire leadership were likewise shown to be negatively associated with work satisfaction.

Participants in the 31–40 age bracket had a much stronger understanding of both transformational and transactional leadership, according to a Taiwanese study.(22) In contrast, age did not significantly affect leadership in our study, however lower age groups did exhibit a higher laissez-faire score. Similar to the findings of the study conducted by Brahim et al., there were no significant gender differences in the types of leadership.(23)

Elderly workers and those with more work experience get desensitised to the transformational leadership style, according to a study done in the United Arab Emirates, even if the current study did not find any significant correlation with the participant's work experience. (24)

### **CONCLUSION**

Leaders with demonstrated transformational skills had a beneficial impact on boosting motivation, ensuring job satisfaction, among health professionals, according to the study. Leaders who exhibited a laissez-faire attitude had a detrimental impact on health professionals' job satisfaction. As a result, improving transformational skills will not only boost provider job satisfaction and staff retention, but will also ensure health-care delivery efficiency.

### **RECOMMENDATION**

It is recommended to implement continuous leadership training programs tailored to enhance decision-making and team

management skills. Regular monitoring of job satisfaction through periodic surveys can help identify and address issues affecting staff morale. Establishing mental health support services will reduce burnout and stress, contributing to a healthier workforce. Enhancing organizational policies to promote work-life balance, recognition, and career development opportunities will foster a culture of satisfaction and retention. Additionally, creating channels for employee feedback ensures concerns are promptly addressed.

### **LIMITATION OF THE STUDY**

Given the complexities of socially driven categories, using a single item to quantify them may be problematic. Professional backgrounds, family demands, work conditions and environment, patient load, obligatory overtime, shifts, and unit type, income, and age may all be moderating factors. A causal association cannot be established due to the cross-sectional study design. The study's generalizability may be limited due to its focus on a specific private tertiary care hospital in Chennai, Tamil Nadu, India

### **RELEVANCE OF THE STUDY**

This study on self-perceived leadership skills and job satisfaction among healthcare providers in a tertiary care hospital in Tamil Nadu adds valuable context-specific insights into the dynamics of leadership and job satisfaction. By identifying current levels and factors influencing these areas, the study provides a benchmark for improvement and guides the development of targeted interventions. Additionally, it contributes to the broader understanding of how leadership and job satisfaction impact healthcare quality, workforce retention, and public health outcomes, filling gaps in the existing literature and informing future research and policy development.

### **AUTHORS CONTRIBUTION**

All authors have contributed equally.

### **FINANCIAL SUPPORT AND SPONSORSHIP**

Nil

## CONFLICT OF INTEREST

There are no conflicts of interest.

## DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/AI assisted technologies in the writing process.

## REFERENCES

1. Sheather J, Slattery D. The great resignation—how do we support and retain staff already stretched to their limit?. *bmj*. 2021 Oct 18;375.
2. Jorm C, Parker M. Medical leadership is the new black: or is it?. *Australian Health Review*. 2014 Nov 27;39(2):217-9.
3. Alshammari A, Almutairi NN, Thuwaini SF. Ethical leadership: The effect on employees. *International Journal of Business and Management*. 2015 Feb 1;10(3):108.
4. Chadi N. Medical leadership: doctors at the helm of change. *McGill Journal of Medicine: MJM*. 2009;12(1):52.
5. Frank J. Medical leadership and effective interprofessional health care teams: A competency-based approach. Vancouver, BC: IMWC. 2007.
6. Eagly AH, Johannesen-Schmidt MC, Van Engen ML. Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men. *Psychological bulletin*. 2003;129(4):569.
7. Negussie N, Demissie A. Relationship between leadership styles of Nuresse managers and nurses' job satisfaction in Jimma University Specialized Hospital. *Ethiopian journal of health sciences*. 2013;23(1):50-8.
8. Spero JC, McQuide PA, Matte R. Tracking and monitoring the health workforce: a new human resources information system (HRIS) in Uganda. *Human resources for health*. 2011;9(1):1-0.
9. Ammer S. Despite impending and relatively growth: Factors influencing the expansion of nurses involvement in health profession. *J Riyadh Trading*. 2001;4176(74):46.
10. Mukundi Gichuhi J. Shared leadership and organizational resilience: a systematic literature review. *International Journal of Organizational Leadership*. 2021;10(Special Issue 2021):67-88.
11. Asiri SA, Rohrer WW, Al-Surimi K, Da'ar OO, Ahmed A. The association of leadership styles and empowerment with nurses' organizational commitment in an acute health care setting: a cross-sectional study. *BMC nursing*. 2016;15(1):1-0.
12. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, Adeyi O, Barker P, Daelmans B, Doubova SV, English M. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *The Lancet global health*. 2018;6(11):e1196-252.
13. Pulphon S. Influences of Transformational leadership, Organizational climate, Human resource management, Organizational structure, and Job satisfaction on the Innovative creation of employees for the Faculty of Medicine Ramathibodi hospital, Mahidol University. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*. 2021;12(12):336-47.
14. Musinguzi C, Namale L, Rutebemberwa E, Dahal A, Nahirya-Ntege P, Kekitiinwa A. The relationship between leadership style and health worker motivation, job satisfaction and teamwork in Uganda. *Journal of healthcare leadership*. 2018:21-32.
15. Bass BM, Avolio BJ. Full range leadership development: Manual for the Multifactor Leadership Questionnaire. Mind Garden; 1997 <https://www.mindgarden.com/documents/MLQGermanPsychometric.pdf>
16. Weiss DJ, Dawis RV, England GW. Manual for the Minnesota satisfaction questionnaire. Minnesota studies in vocational rehabilitation. 1967
17. Wong CA, Cummings GG, Ducharme L. The relationship between nursing leadership and patient outcomes: a systematic review update. *Journal of nursing management*. 2013;21(5):709-24.
18. Isibor E, Kanmodi K, Adebayo O, Olaopa O, Igbokwe M, Adufe I, Oduyemi I, et al. Exploring issues and challenges of leadership among early career doctors in Nigeria using a mixed-method approach: Charting Study. *European Journal of Investigation in Health, Psychology & Education*. 2020;10(1):441-54
19. Top M, Tarcan M, Tekingündüz S, Hikmet N. An analysis of relationships among transformational leadership, job satisfaction, organizational commitment and organizational trust in two Turkish hospitals. *The International journal of health planning and management*. 2013;28(3):e217-41.
20. Musinguzi C, Namale L, Rutebemberwa E, Dahal A, Nahirya-Ntege P, Kekitiinwa A. The relationship between leadership style and health worker motivation, job satisfaction and teamwork in Uganda. *Journal of healthcare leadership*. 2018;10:21
21. Deshpande S, Sahni S, Karemore T, Joshi J, Chahande J. Evaluation of relationship between leadership style and job satisfaction amongst healthcare professionals. *MedEdPublish*. 2018;7.
22. Lan TS, Chang IH, Ma TC, Zhang LP, Chuang KC. Influences of transformational leadership, transactional leadership, and patriarchal leadership on job satisfaction of cram school faculty members. *Sustainability*. 2019;11(12):3465.
23. Brahim AB, Ridic O, Jukic T. The effect of transactional leadership on employees performance-case study of 5 Algerian banking institutions. *Economic Review: Journal of Economics and Business*. 2015;13(2):7-20.
24. Fernandes C, Awamleh R. The impact of transformational and transactional leadership styles on employees satisfaction and performance: an empirical test in a multicultural environment. *International Business & Economics Research Journal (IBER)*. 2004;3(8).