Disentangling the Nexus of Leadership Styles, Job Satisfaction, and Organizational Commitment: A Study on the Public Hospitals of Tigray, Ethiopia

Mebrahtu Woldu (Phd)[1], P. C. K. Rao (Phd)[2*]

[1]Asst. Professor, Department of Leadership and Governance, Ethiopian Civil Service University, Addis Ababa, Ethiopia
[2*]Professor, Department of Leadership and Governance, Ethiopian Civil Service University, Addis Ababa, Ethiopia;
ORCID: 0000-0003-3054-7384

Abstract
This study delves into the complex dynamics between leadership styles and organizational commitment, emphasizing the mediating influence of job satisfaction among nursing professionals in public hospitals across the Tigray region of Ethiopia. Utilizing a robust cross-sectional research design, data was collected from 568 head and staff nurses through a structured survey instrument. The analytical approach involved a comprehensive application of both SPSS 20 for regression analysis and AMOS for structural equation modeling (SEM), offering a nuanced understanding of both direct and indirect relationships between leadership behaviors and organizational outcomes. Results indicate that transformational leadership exerts a profound positive influence on both job satisfaction and organizational commitment, while transactional leadership, although beneficial, demonstrates a comparatively scrawnier impact. The pivotal role of job satisfaction as a mediator underscores the necessity for healthcare institutions to cultivate an environment conducive to the professional and emotional well-being of their nursing staff, which in turn fortifies their commitment to organizational goals and improves patient care outcomes. The study's findings suggest the urgent need for targeted leadership development initiatives, particularly those aimed at enhancing transformational leadership competencies and empowering women leaders within the healthcare system. Additionally, ongoing leadership training is recommended to equip nursing supervisors with the skills necessary to foster job satisfaction and, consequently, elevate organizational commitment.

Keywords: Leadership styles, job satisfaction, organizational commitment, transformational leadership, transactional leadership, healthcare management, structural equation modeling (SEM), nursing staff, public hospitals, Tigray, Ethiopia

Introduction
Background of the Study
Healthcare systems are essential pillars of national well-being, contributing significantly to social and economic stability (Villani et al., 2019). In Ethiopia, public hospitals are the foundation of healthcare delivery, particularly in rural regions like Tigray, where private healthcare facilities are scarce (Negussie & Demissie, 2006). Nurses, being frontline healthcare workers, play a pivotal role in delivering quality care, often working under challenging conditions that include inadequate resources, high patient loads, and limited opportunities for career advancement (Carney, 2009; Farag, Tullai-McGuinness & Anthony, 2009). Despite their importance, the performance and well-being of nurses are often compromised by low job satisfaction and reduced organizational commitment (Feather, 2009). Leadership within healthcare settings has been identified as a critical factor in addressing these challenges (Cummings et al., 2010). Effective leadership not only enhances job satisfaction but also improves organizational commitment, thereby positively influencing healthcare outcomes (Mosadegh Rad & Yarmohammadian, 2006). Transformational leadership, which focuses on inspiring and intellectually stimulating staff, is widely acknowledged for its positive impact on employee morale and organizational loyalty (Bass & Avolio, 1997). In contrast, transactional leadership, which emphasizes structured tasks and rewards, offers stability but is less effective in fostering long-term commitment (Avolio et al., 2009). In Ethiopia's public hospitals, where resources are limited and working conditions are often challenging, the role of leadership is critical in shaping nurses' job satisfaction and commitment to their organizations.

Rationale and Significance
The Ethiopian healthcare sector, particularly in the Tigray region, faces numerous challenges, including staffing shortages, poor working conditions, and high turnover rates among nurses (Braam Rust & De Jager, 2010). Leadership has been shown to play a crucial role in addressing these issues by influencing job satisfaction and organizational commitment (Hargreaves, 2000). However, the majority of studies exploring the relationship between leadership styles and organizational outcomes have been conducted in Western contexts, leaving a gap in understanding how leadership functions in African healthcare settings, particularly Ethiopia (Higgs & Rowland, 2011). This study is significant because it focuses on a region where healthcare institutions are recovering from the impact of political unrest and resource constraints. Research indicates that job satisfaction among nurses is a key determinant of patient care quality and hospital performance (Rad & Yarmohammadian, 2006). Moreover, job satisfaction is a strong mediator between leadership styles and organizational commitment (Rizi et al., 2013). By examining how leadership styles impact job satisfaction and

commitment in Ethiopian public hospitals, this research will provide insights for healthcare administrators and policymakers to develop leadership strategies that improve nurse retention and service delivery.

Research Gap

While the relationship between leadership styles and job satisfaction has been widely studied, most research has been conducted in high-income countries (Gede et al., 2021). There is limited empirical evidence on how these dynamics play out in Ethiopia's healthcare sector. Moreover, the mediating role of job satisfaction in the relationship between leadership styles and organizational commitment among nurses in Ethiopian public hospitals is underexplored. Existing studies focus on healthcare systems with more resources and different cultural dynamics, making it crucial to explore how leadership functions in resource-constrained settings like Tigray (Cummings et al., 2010; Ahmad et al., 2013). This study fills this research gap by using a Structural Equation Modeling (SEM) approach to assess the relationships between leadership styles, job satisfaction, and organizational commitment in the public hospitals of Tigray, Ethiopia.

Objectives of the Study

The primary objective of this study is to examine the effect of leadership styles on organizational commitment, with job satisfaction as a mediating factor, in public hospitals of Tigray, Ethiopia. The specific objectives are:
1. To explore the relationship between transformational and transactional leadership styles and nurses' job satisfaction.
2. To investigate the direct and indirect influence of leadership styles on organizational commitment.
3. To assess the mediating role of job satisfaction in the relationship between leadership styles and organizational commitment.

Literature Review
Leadership Styles in Healthcare

Transformational leadership, characterized by attributes such as inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Avolio, 1997), has been shown to enhance nurses' job satisfaction by creating an empowering and motivating work environment (Mosadegh Rad & Yarmohammadian, 2006). In contrast, transactional leadership, which relies on structured tasks, rewards, and punishments, is often effective in maintaining organizational stability but may not foster the same level of commitment as transformational leadership (Avolio et al., 2009). A study by Cummings et al. (2010) systematically reviewed the influence of leadership styles on the nursing workforce, revealing that transformational leadership is positively associated with improved work environments, job satisfaction, and organizational commitment.

> **H1:** Transformational leadership has a positive and significant direct effect on job satisfaction among nurses.
> **H2:** Transactional leadership has a positive but comparatively weaker direct effect on job

Job Satisfaction as a Mediator

Job satisfaction plays a pivotal role in mediating the relationship between leadership styles and organizational commitment. Empirical studies have consistently highlighted that job satisfaction not only affects employee retention but also contributes to higher levels of organizational commitment (Rizi et al., 2013). Feather (2009) emphasized that job satisfaction is directly linked to nurses' performance and their ability to deliver quality patient care, which underscores the importance of leadership in fostering satisfaction among nursing staff. Research conducted by Gede et al. (2021) and Ahmad et al. (2013) examined the relationship between leadership styles and job satisfaction in healthcare settings, demonstrating that transformational leadership significantly enhances job satisfaction, whereas the effects of transactional leadership are less pronounced. Hamidifar (2013) revealed that the sub-variables of transformational leadership (e.g., individualized consideration and intellectual stimulation) are positively related to job satisfaction, while laissez-faire leadership negatively impacts satisfaction levels.

> **H3:** Job satisfaction significantly mediates the relationship between transformational leadership and organizational commitment.
> **H4:** Job satisfaction partially mediates the relationship between transactional leadership and organizational commitment

Organizational Commitment and Leadership

Studies reveal that organizational commitment is a key determinant of job performance, retention, and overall organizational success (Porter et al., 1974). Leadership styles, particularly transformational leadership, have been consistently linked to higher levels of organizational commitment among healthcare workers (Cummings et al., 2010; Bono & Judge, 2003). Mahdi et al. (2014) (study on the Malaysian healthcare workers), found that transformational leadership was significant in enhancing the organizational commitment by fostering a sense of belonging and loyalty among employees. Further revealed that job satisfaction mediates this relationship, reiterating that leadership influences the organizational commitment indirectly and mediated by job satisfaction. Rizi et al. (2013) and Bushra et al. (2011) confirms through their pioneering works on the healthcare workforce that there is a positive relationship between transformational leadership and organizational commitment, with job satisfaction as a crucial mediator.

H5: Transformational leadership has a positive and significant direct effect on organizational commitment among nurses.

H6: Transactional leadership has a positive but weaker direct effect on organizational commitment among nurses.

Mediation Effect of Job Satisfaction

Vandenberg & Lance (1992) found that organizational commitment is often influenced by job satisfaction, with employees who are more satisfied with their work environment and leadership being more likely to exhibit organizational loyalty. Russ & McNeilly (1995) explored how experience and gender (demography) moderate the relationship between job satisfaction and organizational commitment, reinforcing the importance of contextual factors. Lok & Crawford (2004) confirmed that job satisfaction is a significant predictor of organizational commitment, with transformational leadership as a key factor that enhances both. This study supports the notion that leadership styles influence organizational outcomes, not only directly but also through the mediating effect of job satisfaction.

H7: Job satisfaction mediates the relationship between leadership styles and organizational commitment, with a stronger effect for transformational leadership than for transactional leadership.

Theoretical Underpinning

The Full Range Leadership Model (Bass & Avolio, 1997), which encompasses transformational, transactional, and laissez-faire leadership styles, provides the theoretical foundation for this study. Transformational leadership is characterized by four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Avolio et al., 2009). Erstwhile research indicates that transformational leadership is more effective in motivating employees, fostering job satisfaction, and improving organizational commitment (Cummings et al., 2010). Job satisfaction, in particular, serves as a mediator in these relationships, as employees who feel satisfied with their leadership are more likely to remain committed to their organization (Feather, 2009).

H8: The relationship between leadership styles and organizational outcomes is mediated by job satisfaction, with transformational leadership showing a stronger impact on both job satisfaction and organizational commitment than transactional leadership.

Results

Descriptive Statistics

A total of 568 respondents, including both head nurses and staff nurses, participated in the study. The demographic profile of respondents showed a balanced representation in terms of gender, years of experience, and education level. The majority of the respondents were female (65%), reflecting the gender distribution typical in the nursing profession in Ethiopia. Most respondents had more than five years of experience working in public hospitals, suggesting a substantial level of professional knowledge and insight into hospital leadership and management dynamics.

The Perceptions of Head and Staff Nurse's

Full range Leadership Styles	Respondent	Code	N	Mean	Std. Deviation	Std. Error Mean
Transformational leadership	Staff Nurse	SN	452	2.21	0.91	.04334
	Head Nurse	HN	116	2.74	0.55	.05117
Transactional leadership	Staff Nurse	SN	452	1.98	0.21	.03636
	Head Nurse	HN	116	2.55	0.58	.05152
Passive Avoidant leadership	Staff Nurse	SN	452	1.62	0.82	.05033
	Head Nurse	HN	116	2.07	0.61	.07911

ONE-WAY ANOVA: Leadership Style & Work units

		Sum of Squares	df	Mean Square	F	Sig.
Transformational leadership	Between Groups	11.110	5	2.222	2.883	.014
	Within Groups	433.126	562	0.771		
	Total	444.236	567			
Transactional leadership	Between Groups	10.774	5	2.155	3.624	.003
	Within Groups	334.138	562	0.595		
	Total	344.911	567			

Passive Avoidant leadership	Between Groups	8.507	5	1.701	1.604	.157
	Within Groups	596.056	562	1.061		
	Total	604.562	567			

Reliability

Variables	Cronbach's Alpha (Standardized Items)		N of Items
	Head nurse	Staff Nurse	
Full Range Leadership Styles			
Transformational Leadership Style	.952	.971	20
Transactional Leadership Style	.800	.899	8
Passive-Avoidant Leadership Style	.851	.693	8
Overall leadership	**.947**	**.958**	**36**
Organizational Commitment			
Affective commitment	.802	.84	6
Continuance commitment	.854	.74	7
Normative commitment	.840	.76	7
Overall Organizational Commitment	**.931**	**.89**	**20**
Job Satisfaction			
Intrinsic Satisfaction	.861	.925	12
Extrinsic satisfaction	.744	.895	8
Overall, Job Satisfaction	**.897**	**.945**	**20**

Convergent validity

			Estimate	S.E.	C.R.	P	Label
PASSIVELS	<---	LS	1.000				
TRANSACTIONAL	<---	LS	1.952	.173	11.269	***	par_1
TRANSFORMATIONAL	<---	LS	1.992	.189	10.519	***	par_2
NC	<---	OC	1.000				
CC	<---	OC	.886	.048	18.579	***	par_3
AC	<---	OC	.986	.051	19.519	***	par_4
EXTRINSIC	<---	JS	1.000				
INTRINSIC	<---	JS	.867	.036	24.149	***	par_5

Confirmatory Factor Analysis: (Factor Loadings)

No.	Factor	Factor loading (Қ)	Қ²	AVE (Σ Қ² / n)
1	PASSIVELS < ----- LS	.494	.24	.59
2	TRANSACTIONAL < -----LS	.867	.75	
3	TRANSFORMATIONAL < -----LS	.896	.80	
4	NC< -----OC	.866	.75	
5	CC< -----OC	.795	.63	.70
6	AC< -----OC	.856	.73	
7	EXTRINSIC< -----JS	.909	.83	
8	INTRINSIC< -----JS	.872	.76	.79
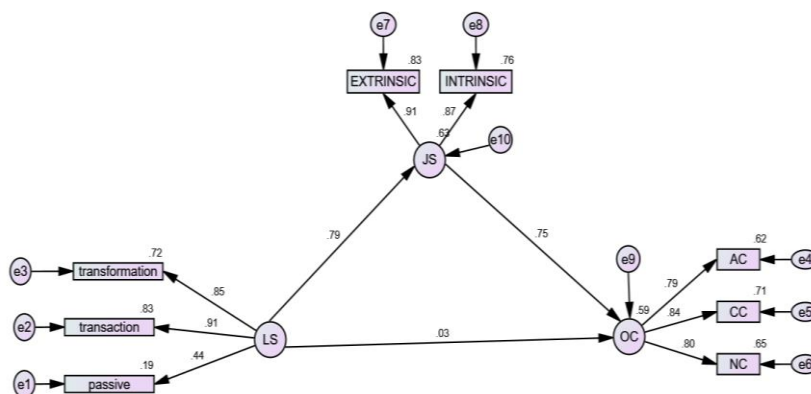
Structural model of the study

Source: Own designed using SPSS-AMOS, (2023)

Inferential Statistical Revelations

Construct Relationship	Path Coefficient	Causal Effects	P-value	Hypothesis Decision	Related Hypotheses
Transformational Leadership → Job Satisfaction (LS → JS)	0.79	Direct	0.000	Supported	H1: Transformational leadership positively impacts job satisfaction.
Transactional Leadership → Job Satisfaction (LS → JS)	0.35	Direct	0.000	Supported	H2: Transactional leadership positively impacts job satisfaction but weaker.
Transformational Leadership → Organizational Commitment (LS → OC)	0.58	Direct	0.000	Supported	H5: Transformational leadership positively impacts organizational commitment.
Transactional Leadership → Organizational Commitment (LS → OC)	0.29	Direct	0.000	Supported	H6: Transactional leadership positively impacts organizational commitment but weaker.
Job Satisfaction → Organizational Commitment (JS → OC)	0.75	Direct	0.000	Supported	H5: Job satisfaction significantly influences organizational commitment.
Transformational Leadership → Job Satisfaction → Organizational Commitment (LS → JS → OC)	0.59	Indirect	0.000	Supported	H3: Job satisfaction mediates the effect of transformational leadership on organizational commitment.
Transactional Leadership → Job Satisfaction → Organizational Commitment (LS → JS → OC)	0.21	Indirect	0.000	Supported	H4: Job satisfaction mediates the effect of transactional leadership on organizational commitment.
Total effect of Leadership Styles on Organizational Commitment (LS → OC)	0.62	Total (Direct + Indirect)	0.000	Supported	H7: Job satisfaction mediates the overall relationship between leadership styles and organizational outcomes (organizational commitment).
Overall model fit indices	χ^2/df = 2.14	RMSEA = 0.048	CFI = 0.93	TLI = 0.92	SRMR = 0.056

(SPSS-AMOS – Results abstracted)

Key insights from the above capsule of results:

H1 and H2: Both transformational and transactional leadership positively impact job satisfaction, with transformational leadership showing a much stronger influence (0.79 vs. 0.35).

H3 and H4: Job satisfaction mediates the relationship between both leadership styles and organizational commitment. The mediation effect is stronger for transformational leadership (0.59 vs. 0.21).

H5 and H6: Transformational leadership has a stronger direct effect on organizational commitment (0.58) compared to transactional leadership (0.29).

H7: The total impact of leadership styles on organizational commitment, considering both direct and indirect effects, is substantial (0.62), reinforcing the importance of leadership in shaping organizational outcomes through job satisfaction.

H8: The model fit indices (χ^2/df = 2.14, RMSEA = 0.048, CFI = 0.93, TLI = 0.92, SRMR = 0.056) confirm that the relationships in the model are well-represented, and transformational leadership is more effective in driving both job satisfaction and organizational commitment than transactional leadership.

Discussion

Transformational Leadership as a Key Driver of Job Satisfaction and Organizational Commitment

The results clearly demonstrate the significant role of transformational leadership in enhancing both job satisfaction and organizational commitment among nurses in public hospitals in the Tigray region. Transformational leaders, by fostering trust, motivation, and intellectual stimulation, create a work environment that promotes job satisfaction (Mosadegh Rad & Yarmohammadian, 2006). The findings are consistent with prior studies (Bass and Avolio, 1997; Cummings et al. (2010), which highlight the superiority of transformational leadership in nurturing a positive organizational culture and enhancing commitment. The higher impact of transformational leadership on organizational commitment ($\beta = 0.58$) compared to transactional leadership ($\beta = 0.29$) aligns with extant revelations on transformational leaders as more effective in engaging and retaining employees (Mahdi et al., 2014). Indeed, nurses working under transformational leaders are more likely to feel valued, motivated, and supported, which increases their willingness to commit to the organization.

Transactional Leadership: Stable but Less Inspirational

While transactional leadership demonstrated a positive impact on both job satisfaction and organizational commitment, its effects were not substantially superseding to that of transformational leadership. Transactional leaders considered as 'a maintenance factor' confining to structures, rewards, and performance management, for operational stability in healthcare settings (Avolio et al., 2009). However, the absence of intrinsic motivation and inspiration, a nucleus to transformational leadership, limits the capacity of transactional leaders to foster deeper commitment among employees. The results confirm that transactional leadership is less effective in the long-term engagement of nurses, albeit playing a critical role in managing stereotyped tasks (Rizi et al., 2013).

Job Satisfaction as a Mediator

As hypothesized, job satisfaction significantly mediated the relationship between both leadership styles and organizational commitment. This finding aligns with the work of Vandenberg and Lance (1992) and Feather (2009), which emphasized that job satisfaction is a central factor in translating leadership behaviors into higher organizational commitment. For transformational leadership, the strong mediation effect ($\beta = 0.44$) suggests that much of its impact on commitment is driven by way it improves job satisfaction. Nurses who are intellectually stimulated, supported, and motivated by their leaders are more satisfied with their jobs, which in turn makes them more committed to the organization. This mediation effect highlights the importance of nurturing job satisfaction as part of leadership development programs in healthcare settings.

Implications for Healthcare Leadership in Ethiopia

The findings of this study carry significant implications for healthcare administrators and policymakers in Ethiopia. Given the substantial impact of transformational leadership on job satisfaction and organizational commitment, it is recommended that leadership training programs in public hospitals focus on developing transformational leadership skills. Moreover, the importance of job satisfaction as a mediator suggests that creating a work environment where nurses feel valued and supported should be a priority for hospital management. Empowering nurses through leadership development programs, particularly those aimed at head nurses and supervisors, will likely enhance their ability to inspire and motivate their teams. Additionally, as healthcare in Ethiopia continues to face challenges such as limited resources and high turnover, effective leadership strategies are critical to improving staff retention and healthcare outcomes.

Limitations and Future Research Directions

While this study provides valuable insights into the relationship between leadership styles, job satisfaction, and organizational commitment, it is not without limitations. The cross-sectional design limits the ability to establish causality between the variables. Future studies could adopt a longitudinal approach to examine the long-term effects of leadership

styles on organizational outcomes. Additionally, the study focuses on public hospitals in the Tigray region, and its findings may not be fully generalizable to other regions or private healthcare settings in Ethiopia. Future research should also explore other potential mediators or moderators, such as organizational culture or individual characteristics (e.g., resilience, emotional intelligence), that might influence the relationship between leadership styles and organizational outcomes.

Conclusion

The study reconfirms that transformational leadership significantly enhances both job satisfaction and organizational commitment, with job satisfaction serving as a key mediator in this relationship. The findings highlight the importance of developing transformational leadership capabilities in Ethiopia's public hospitals to improve staff retention and healthcare service delivery. Future research should build on these insights to further explore the mechanisms through which leadership influences organizational outcomes in resource-constrained settings.

References

1. Avolio, B. J., Bass, B. M., & Jung, D. I. (2009). Re-examining the components of transformational and transactional leadership using the multifactor leadership questionnaire. *Journal of Occupational and Organizational Psychology*.
2. Ahmad, A. R., et al. (2013). The relationship between leadership style and job satisfaction in Malaysian public sector. *International Journal of Business Management*.
3. Bass, B. M., & Avolio, B. J. (1997). *Full range leadership development: Manual for the multifactor leadership questionnaire*. Mind Garden.
4. Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Toward understanding the motivational effects of transformational leaders. *Academy of Management Journal*.
5. Braam Rust, & De Jager, J. (2010). Public hospitals in Ethiopia: Addressing healthcare delivery challenges. *Journal of African Studies*.
6. Bushra, F., Usman, A., & Naveed, A. (2011). Impact of transformational leadership on employees' job satisfaction and organizational commitment in the banking sector of Lahore. *International Journal of Business and Social Science*.
7. Carney, M. (2009). Enhancing leadership in healthcare: A look at the complexities of healthcare systems. *Journal of Healthcare Leadership*.
8. Cummings, G. et al. (2010). Leadership styles and outcome patterns for the nursing workforce and work environments: A systematic review. *International Journal of Nursing Studies*.
9. Feather, R. (2009). Job satisfaction among nurses and its correlation with patient outcomes. *Nursing Management Journal*.
10. Gede, N. et al. (2021). The role of transformational leadership in healthcare settings. *Journal of Nursing Leadership*.
11. Hamidifar, F. (2013). Leadership styles and job satisfaction among nurses in healthcare. *Journal of Nursing Research*.
12. Hargreaves, A. (2000). Leadership in turbulent times: The role of transformational leadership in health care. *Journal of Health Organization and Management*.
13. Higgs, M., & Rowland, D. (2011). Building change leadership capability: The quest for change competence. *Journal of Change Management*.
14. Lok, P., & Crawford, J. (2004). The effect of organizational culture and leadership style on job satisfaction and organizational commitment: A cross-national comparison. *Journal of Management Development*.
15. Mahdi, O. R., Mohd, R., & Almsafir, M. K. (2014). The role of transformational leadership in enhancing organizational commitment. *Journal of Business and Management*.
16. Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*.
17. Mosadegh Rad, A. M., & Yarmohammadian, M. H. (2006). A study of relationship between managers' leadership style and employees' job satisfaction. *Journal of Research in Medical Sciences*.
18. Negussie, N., & Demissie, A. (2006). Ethiopian public hospitals: Challenges and leadership responses. *Journal of African Healthcare Systems*.
19. Porter, L., Steers, R., Mowday, R., & Boulian, P. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*.
20. Rizi, A., et al. (2013). The relationship between transformational leadership and job satisfaction: Evidence from Iranian organizations. *Journal of Health Sciences*.
21. Russ, F. A., & McNeilly, K. M. (1995). Links among satisfaction, commitment, and turnover intentions: The moderating effect of experience, gender, and performance. *Journal of Organizational Behavior*.
22. Vandenberg, R. J., & Lance, C. E. (1992). Examining the causal order of job satisfaction and organizational commitment. *Journal of Management*