IMPACT OF TRANSFORMATIONAL VS. TRANSACTIONAL LEADERSHIP STYLES AMONG NURSE MANAGERS ON PATIENT SAFETY, NURSE SATISFACTION, AND TURNOVER RATES: A SYSTEMATIC REVIEW

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Abstract

Background: Leadership enacted by nurse managers shapes patient safety, nurse satisfaction, and retention. Transformational leadership (TL) is theorized to empower staff and improve outcomes, whereas transactional leadership (TAL) relies on contingent reward and monitoring. We aimed to synthesize empirical evidence comparing TL and TAL among nurse managers in relation to patient safety, nurse satisfaction, and turnover-related outcomes. Methods: We followed PRISMA guidance. Eight records were supplied a priori; one was a duplicate of the same journal article (repository vs publisher), yielding seven unique empirical studies. We extracted design, setting, measures, and findings; risk of bias was appraised qualitatively. Results: Across three studies, TL related to stronger safety culture/practices and fewer adverse events, with mediation by empowerment/safety culture. Two studies linked TL to higher job satisfaction versus TAL, while passive/laisser-faire elements were unfavorable; contingent reward (a TAL component) showed limited, context-specific benefits. Two studies associated TL with lower anticipated/predicted turnover; TAL showed null or weaker associations. Conclusions: Evidence consistently favors TL over TAL for patient safety, nurse satisfaction, and turnover intentions. Contingent reward may help in specific contexts, but passive-avoidant behaviors are detrimental. Investment in manager training that builds TL behaviors and safety culture is warranted.

Keywords: Transformational Leadership; Transactional Leadership; Nurse Managers; Patient Safety; Job Satisfaction; Turnover Intention.

INTRODUCTION

Leadership is a pivotal lever for clinical quality and workforce sustainability in nursing. Over two decades of reviews show that relational styles, especially transformational leadership (TL), are associated with more favorable nurse and patient outcomes than task-focused or passive styles (Cummings et al., 2018; Wong & Cummings, 2007). TL comprises idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration; in nursing, it is posited to operate through structural empowerment, trust, and psychological safety to shape behavior and results (Wong et al., 2013; Specchia et al., 2021). Recent overviews of reviews reinforce that TL is the most commonly examined style and is consistently linked to beneficial organizational, staff, and patient outcomes, while transactional leadership (TAL) and passive-avoidant styles show weaker or adverse associations (Hult et al., 2023; Cummings et al., 2018). At the unit level, nurse managers directly orchestrate staffing, communication, and safety practices. Empirical studies indicate TL predicts stronger safety climates and lower adverse event rates, often via increased empowerment (Boamah et al., 2018). Conversely, TAL,defined by contingent reward and management-by-exception,can clarify expectations but may not build the discretionary effort and shared vision needed to sustain safety and engagement; passive-avoidant behaviors, in particular, erode morale and outcomes (Wong & Cummings, 2007; Specchia et al., 2021).

Nurse satisfaction and retention are central to patient safety and organizational performance. Studies consistently link TL to higher satisfaction and lower turnover intentions, whereas TAL associations are mixed and seem context-dependent (AbuAlRub & Alghamdi, 2012; Suliman et al., 2020). An integrative review further suggests TL improves intentions to stay and downstream patient outcomes through empowerment and commitment (Specchia et al., 2021).

Given the operational importance of nurse managers and ongoing workforce strain, we conducted a focused systematic review of original studies comparing TL and TAL among nurse managers on three outcomes: patient safety, nurse satisfaction, and turnover-related measures. We also position our findings within the broader synthesis literature to clarify mechanisms and implications.

METHODS

Protocol and eligibility. We followed PRISMA principles to transparently select and synthesize studies. Eligible studies: (1) empirical, quantitative research involving nurse managers' leadership style measured with a validated tool (MLQ); (2) analytic link to at least one outcome, patient safety (adverse events, safety culture/practices), nurse job satisfaction, or turnover intention/predicted turnover; (3) report TL and/or TAL; (4) hospital or acute-care settings; and (5) English full text or abstract.

Information sources and study selection. The requester provided 8 records. During screening, one record was a repository duplicate of the published JONA article (same title/authors), leaving 7 unique studies for inclusion. We documented reasons for

exclusion (duplicate) and proceeded with full-text/abstract assessment of the remaining records against criteria. Because the evidence set was provided a priori, no additional database searching was performed to avoid introducing selection bias without a registered protocol.

Data extraction. From each included study we extracted: country/setting, design, sample size, leadership instrument and subscales, outcome measures, analysis approach, and main results including direction and significance of associations between TL/TAL and outcomes. For patient safety, we noted whether effects were direct or mediated (empowerment, safety culture).

Risk of bias and certainty. Two broad domains were appraised qualitatively: (1) selection/measurement quality (sampling strategy, response rate, validated instruments), and (2) analytic adjustment (use of multivariable models/structural modeling). All included studies were cross-sectional; thus, causal inference is limited. Use of validated tools (MLQ-5X; standardized safety culture and adverse event indicators) generally reduced measurement bias. We judged overall certainty as moderate for associations with satisfaction and turnover intention and lower-to-moderate for patient safety outcomes (given varied measures and potential common-method bias).

Synthesis. We performed narrative synthesis by outcome domain (patient safety; satisfaction; turnover). Given heterogeneity in measures and designs, meta-analysis was not attempted. We nevertheless highlighted consistent patterns and noted exceptions (contingent reward effects). PRISMA flow (n reported). Records provided: 8; duplicates removed: 1; full texts/abstracts assessed: 7; studies included: 7. Included studies are cited in the Results with detailed characteristics (Table 1).

RESULTS

Study Characteristics

Seven unique cross-sectional studies from Canada, Saudi Arabia, Jordan, Iran, Ethiopia, and multi-hospital U.S. settings met inclusion criteria. Most measured leadership with the Multifactor Leadership Questionnaire (MLQ) and outcomes with validated scales (job satisfaction; anticipated turnover; safety culture/practices) or adverse event reports (Boamah et al., 2018; Merrill, 2015; Hamdan et al., 2024; Negussie & Demissie, 2013; AbuAlRub & Alghamdi, 2012; Pishgooie et al., 2019; Suliman et al., 2020).

Table 1: Included studies: settings, samples, measures, outcomes

Study (year)	Country/setting	Design, N	Leadership measure	Outcomes
Boamah et al. (2018)	Canada, acute hospitals	Cross-sectional, N=378 staff nurses	MLQ (managers' TL behaviors)	Job satisfaction; empowerment; frequency of adverse patient events
Merrill (2015)	USA, 9 hospitals	Cross-sectional, N=466 staff nurses	MLQ-derived TL/TAL	Safety climate & patient safety indicators

Hamdan et al. (2024)	Saudi Arabia, medical city	Cross-sectional, N=200 nurses	MLQ; safety culture; safety practices	Patient safety practices; safety culture (mediator)
AbuAlRub & Alghamdi (2012)	Saudi Arabia, hospitals	Cross-sectional, N=308 Saudi nurses	MLQ-5X	Job satisfaction; intent to stay
Pishgooie et al. (2019)	Iran, govt. hospitals	Cross-sectional, N=1,617 nurses	Manager leadership style	Job stress; anticipated turnover
Suliman et al. (2020)	Jordan, public/teaching hospitals	Cross-sectional, N=250 nurses	MLQ-5X	Predicted nurse turnover (Anticipated Turnover Scale)
Negussie & Demissie (2013)	Ethiopia, teaching hospital	Cross-sectional, N=175 nurses	MLQ; Minnesota Satisfaction Questionnaire	Intrinsic/extrinsic job satisfaction

Patient Safety Outcomes

Three studies directly linked leadership to safety constructs. In a Canadian sample, transformational behaviors increased structural empowerment, which raised job satisfaction and reduced the frequency of adverse events; job satisfaction itself related to fewer adverse events, supporting a mediated TL→empowerment→satisfaction→safety pathway (Boamah et al., 2018).

A multi-hospital U.S. study reported that stronger TL among nurse managers was associated with a more positive safety climate and improved safety indicators, reinforcing the managerial role in shaping safety culture (Merrill, 2015). A Saudi study showed TL had significant positive associations with both safety culture and nurses' safety practices (medication safety, handover, fall prevention, unplanned extubation prevention), with safety culture mediating the TL–practice link (Hamdan et al., 2024).

These data suggest that TL benefits patient safety through culture and empowerment rather than only through direct control mechanisms. TAL elements such as contingent reward were not the primary drivers of safety outcomes in these studies, and passive/avoidant behaviors were not examined as helpful contributors. These patterns align with synthesis literature indicating relational styles foster safer work environments (Cummings et al., 2018; Hult et al., 2023).

Nurse job satisfaction

Two studies directly compared TL and TAL with satisfaction outcomes. In Ethiopia, all five TL dimensions (idealized influence, inspirational motivation, intellectual stimulation, individualized consideration) correlated positively with both intrinsic and extrinsic satisfaction; by contrast, among TAL dimensions, only contingent reward related positively, while management-by-exception and laissez-faire related weakly or negatively (Negussie & Demissie, 2013).

Among Saudi nurses, TL explained variation in job satisfaction and was associated with higher intent to stay; TAL had a smaller explanatory role and, together with TL plus demographics, accounted for about one-third of the variance in satisfaction (AbuAlRub & Alghamdi, 2012).

These findings dovetail with review evidence that TL improves satisfaction via empowerment and commitment, while TAL offers narrower, conditional benefits (Wong et al., 2013; Specchia et al., 2021).

Turnover intention/predicted turnover

Two large cross-sectional studies addressed turnover. In Iran, both TL and TAL were statistically related to lower job stress and anticipated turnover, whereas laissez-faire leadership related to higher stress and turnover; authors suggested a pragmatic blend of TL with some contingent reward may reduce stressors (Pishgooie et al., 2019).

In Jordan, TL significantly reduced predicted turnover, while TAL and passive-avoidant styles showed no significant effects (Suliman et al., 2020). Together, these studies indicate that TL consistently favors retention, whereas TAL's utility may be limited to specific, transactional levers (contingent reward) and does not substitute for a transformational climate.

Comparative summary

Table 2 summarizes effect directions. Across domains, TL demonstrated uniformly positive associations: safer practice/climate, higher satisfaction, and lower turnover intent. TAL showed mixed effects,contingent reward occasionally associated with satisfaction or reduced stress,but management-by-exception and passive/laisser-faire were neutral or adverse.

Table 2: Summary of effects of TL vs. TAL across outcomes

Outcome	Transformational leadership (TL)	Transactional leadership (TAL)
Patient safety (safety climate, practices, adverse events)	↑ Empowerment/JS → ↓ adverse events (Canada); ↑ safety climate (USA); TL → ↑ safety culture → ↑ safety practices (Saudi) (Boamah; Merrill; Hamdan)	No consistent positive effect reported; contingent reward not main driver; passive components not helpful (across same studies)
Nurse satisfaction	Positive across all TL dimensions; strongest for inspirational motivation/intellectual stimulation (Ethiopia); TL increases satisfaction and intent to stay (Saudi) (Negussie & Demissie; AbuAlRub & Alghamdi)	Contingent reward: limited positive links; management-by-exception/laisser-faire: weak or negative (Ethiopia; Saudi)
Turnover intention/predicted turnover	↓ Predicted turnover (Jordan); with lower stress (Iran) (Suliman; Pishgooie)	Mixed/none: TAL non-significant in Jordan; in Iran, TAL associated with lower stress and anticipated turnover but weaker than TL; laissez-faire ↑ risk (Pishgooie)

Risk-of-bias context. All studies were cross-sectional and primarily self-report, introducing common-method and temporality limitations. However, consistent use of validated instruments (MLQ, job satisfaction scales, turnover scales; safety culture/practice tools) and large samples in several studies strengthen confidence in directionality.

DISCUSSION

Our synthesis shows consistent advantages for TL over TAL across patient safety, satisfaction, and turnover outcomes, findings highly concordant with broader syntheses. Early work already highlighted that relational leadership (TL) improves safety climate and nurse outcomes compared with task-focused or passive approaches (Wong & Cummings, 2007). A decade later, a major systematic review across leadership styles concluded that relational forms (including TL) are reliably associated with better nurse well-being, satisfaction, and retention, whereas task-oriented or laissez-faire styles underperform (Cummings et al., 2018; Wong et al., 2013). More recent umbrella/overview reviews reiterate that TL is the most frequently studied and consistently linked to positive organizational, staff, and patient outcomes, with proposed mechanisms including empowerment, engagement, and healthy work environments (Hult et al., 2023; Specchia et al., 2021).

Within our included studies, mechanisms were explicit: TL increased structural empowerment and satisfaction, which related to fewer adverse events (Boamah et al., 2018) and bolstered safety climate (Merrill, 2015). Hamdan et al. (2024) extended this pathway, demonstrating that safety culture mediates the TL–safety practice association,particularly salient for high-reliability behaviors like medication safety and safe handovers. On the workforce side, TL consistently predicted higher job satisfaction in both Middle Eastern and African contexts (AbuAlRub & Alghamdi, 2012; Negussie & Demissie, 2013), and reduced predicted turnover (Suliman et al., 2020). These findings echo qualitative accounts that nurse managers' styles materially shape satisfaction, turnover, and perceived quality of care (Saleh et al., 2018) and quantitative evidence that TL lowers stress and turnover intent while toxic/passive leadership increases risk (Labrague et al., 2020).

Two nuances emerged. First, not all TAL components are uniformly negative: contingent reward showed some positive association with satisfaction in Ethiopia and reduced stress/anticipated turnover in Iran (Negussie & Demissie, 2013; Pishgooie et al., 2019). This aligns with synthesis suggesting that while TL is foundational, specific transactional practices can complement it by clarifying expectations and recognizing performance (Cummings et al., 2018). Second, passive/avoidant styles consistently undermined outcomes (Pishgooie et al., 2019; reviews in Specchia, 2021; Hult, 2023).

Organizations should prioritize leadership development programs that build TL capabilities, visioning, coaching, intellectual stimulation, while embedding safety culture improvement, given mediation evidence (Boamah et al., 2018; Hamdan et al., 2024). Policies that reinforce empowerment (shared governance, autonomy) and recognition systems can create synergistic "transformational-plus" environments. Given the cross-sectional nature of most evidence, future longitudinal/interventional research is needed to test causal pathways and quantify effects on hard safety outcomes. Our included set comprised seven unique studies due to a duplicate (repository/publisher) among the eight records supplied; designs were cross-sectional and often self-report, limiting causal inference.

Nevertheless, convergence with multiple independent systematic reviews/overviews strengthens confidence in directionality (Wong et al., 2013; Cummings et al., 2018; Specchia et al., 2021; Hult et al., 2023).

CONCLUSION

Across diverse hospital settings, transformational leadership by nurse managers is consistently associated with safer care, greater nurse job satisfaction, and lower turnover intentions, whereas transactional elements offer limited, context-specific benefits and passive/avoidant behaviors are detrimental. Mechanistically, empowerment and safety culture appear to mediate the TL–outcomes pathway. Health systems should invest in nurse-manager development that emphasizes transformational behaviors alongside structures that support empowerment and a just safety culture. Prospective and interventional studies are warranted to confirm causality and quantify impacts on hard patient safety indicators.

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