

Transformational Leadership of Nurse Managers Enhances Healthcare Service Quality Through a Strengthened Nursing Organizational Culture

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ABSTRACT

The transformational leadership style of the ward head plays a strategic role in shaping a nursing organizational culture that supports high-quality healthcare services. This study aims to examine empirical evidence on the influence of the ward head's transformational leadership style on nursing organizational culture, with a particular focus on three key outcomes: professionalism, workplace spirituality, and nurses' work effectiveness. The review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach. From a total of 233 identified records, 16 articles met the inclusion criteria. The literature search was performed using the PICOT framework across the PubMed, Gale OneFile, and ProQuest databases, employing the keywords "transformational leadership" AND "head nurse". The findings demonstrate that the ward head's transformational leadership exerts a significant influence on nursing organizational culture. This leadership style enhances nurses' professionalism by strengthening clinical autonomy, ethical competence, clinical leadership, and creativity. Furthermore, transformational leadership fosters workplace spirituality by increasing the meaning of work, psychological well-being, caring values, and perceptions of organizational justice. These improvements subsequently contribute to greater work effectiveness, reflected in enhanced nurse performance, higher quality of nursing care, improved patient safety, stronger nurse retention, and greater organizational sustainability. Nursing organizational culture is shown to function as a key mediator that links transformational leadership to these diverse outcomes. This scoping review confirms that the transformational leadership style of the ward head constitutes a crucial managerial strategy for cultivating a professional, meaningful, and effective nursing organizational culture, with direct implications for improving the overall quality of healthcare services.

Keywords: transformational leadership; ward head; nursing organizational culture; professionalism; workplace spirituality; work effectiveness

INTRODUCTION

High-quality healthcare services are a primary indicator of the success of a health system, in which nursing personnel hold a central role due to their intensive interaction with patients throughout the care process. Within this context, the ward head (head nurse) occupies a strategic position in directing nursing practice, shaping the work environment, and ensuring the achievement of optimal service quality. One leadership approach widely examined in healthcare organizations is transformational leadership, which emphasizes the leader's ability to inspire, motivate, empower, and continuously develop the potential of nursing staff [1,2]. This leadership style is not only oriented toward achieving organizational goals but also toward fostering professionalism defined as adherence to standards, professional commitment, and competency development, workplace spirituality, which encompasses meaning in work, caring values, and ethical principles that support psychological well-being, and work effectiveness, reflected in productivity, procedural compliance, and the achievement of quality indicators in nursing practice [2–4]. These three dimensions are interrelated and collectively determine the quality of nursing care and the retention of nursing personnel.

Nevertheless, various challenges persist in nursing services within hospital settings, particularly those related to suboptimal organizational culture. Several studies have reported issues such as low levels of nurse professionalism, limited clinical autonomy, high burnout, and reduced work engagement [1,3,5]. In addition, high turnover rates and low intention to stay have emerged as critical concerns that threaten the sustainability of healthcare services [2]. From the perspective of workplace spirituality, elements such as meaning in work, psychological well-being, and caring values have not been fully internalized within nursing organizational culture [3,6]. Another important issue is the suboptimal work effectiveness of nurses, reflected in variations in performance, inconsistencies in the quality of nursing care, and gaps in patient safety indicators [7,8]. A growing body of evidence indicates that leadership, particularly the leadership style of the ward head is a key determinant influencing these conditions, although its implementation varies across organizations [4,9–11].

The urgency to further examine the relationship between transformational leadership and nursing organizational culture has increased in line with the rising complexity of healthcare services, the growing demand for service quality, and the heightened focus on patient safety and organizational sustainability. A comprehensive literature review is therefore needed to understand how transformational leadership shapes nursing organizational culture and how this culture contributes to enhancing professionalism, workplace spirituality, and work effectiveness among nurses [12–14]. Such understanding is essential for developing evidence-based management strategies in nursing services, particularly within hospital ward settings.

Previous studies have explored the relationship between transformational leadership and various outcomes in nursing organizations. Evidence shows that transformational leadership is positively associated with increased professionalism, including clinical autonomy, ethical competence, and involvement in decision-making [4,9,15]. Transformational leadership has also been shown to enhance workplace spirituality by strengthening meaning in work, psychological well-being, and the quality of interpersonal relationships within nursing teams [3,5,6]. In terms of work effectiveness, numerous studies report that transformational leadership contributes to improved nurse performance, higher quality of nursing care, better patient safety outcomes, greater innovation, and stronger nurse retention [2,7,14,16]. However, the findings also reveal variations influenced by organizational context and the presence of mediating variables such as organizational culture, work motivation, and psychological empowerment [12–14].

Based on these considerations, the present study positions itself as a comprehensive literature review that synthesizes empirical evidence on the influence of the ward head's transformational leadership on nursing organizational culture, with a specific focus on professionalism, workplace spirituality, and work effectiveness. Through this approach, the study aims to provide an integrated understanding of the relationships among these variables and the mechanisms that underpin them. The objective of this review is to systematically examine empirical evidence regarding the influence of transformational leadership of ward heads on nursing organizational culture, identify the cultural dimensions affected, and analyze the mechanisms involved as a basis for developing strategies to improve the quality of nursing services in hospital settings.

METHODS

This study is a literature review employing a systematic review approach guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 to ensure transparency and replicability in the search and article selection process [17]. The review was conducted between January and February 2026. The purpose of this study is to identify and synthesize empirical evidence regarding the influence of the ward head's transformational leadership on nursing organizational culture, particularly in the dimensions of professionalism, workplace spirituality, and work effectiveness. The literature sources were obtained through searches of electronic databases, namely PubMed, Gale OneFile, and ProQuest. The search strategy was developed using the PICOT framework (Population, Intervention, Comparison, Outcome, Time) to refine the focus of the literature search. The keywords used were "transformational leadership" AND "head nurse", applying the Boolean operator AND to narrow the search results in accordance with the study topic. The search was limited to articles published between 2020 and 2025, available in full text, and written in English.

The inclusion criteria for this study consisted of: (1) empirical research articles employing quantitative, qualitative, or mixed-methods designs; (2) articles specifically examining transformational leadership of ward heads or nurse managers; (3) articles investigating its relationship with nursing organizational culture or related outcomes such as professionalism, workplace spirituality, and work effectiveness; and (4) articles published in indexed scientific journals. The exclusion criteria included: (1) articles not relevant to the topic; (2) editorials, opinion papers, or non-systematic literature reviews; (3) articles not available in full text; and (4) duplicate articles retrieved from different databases.

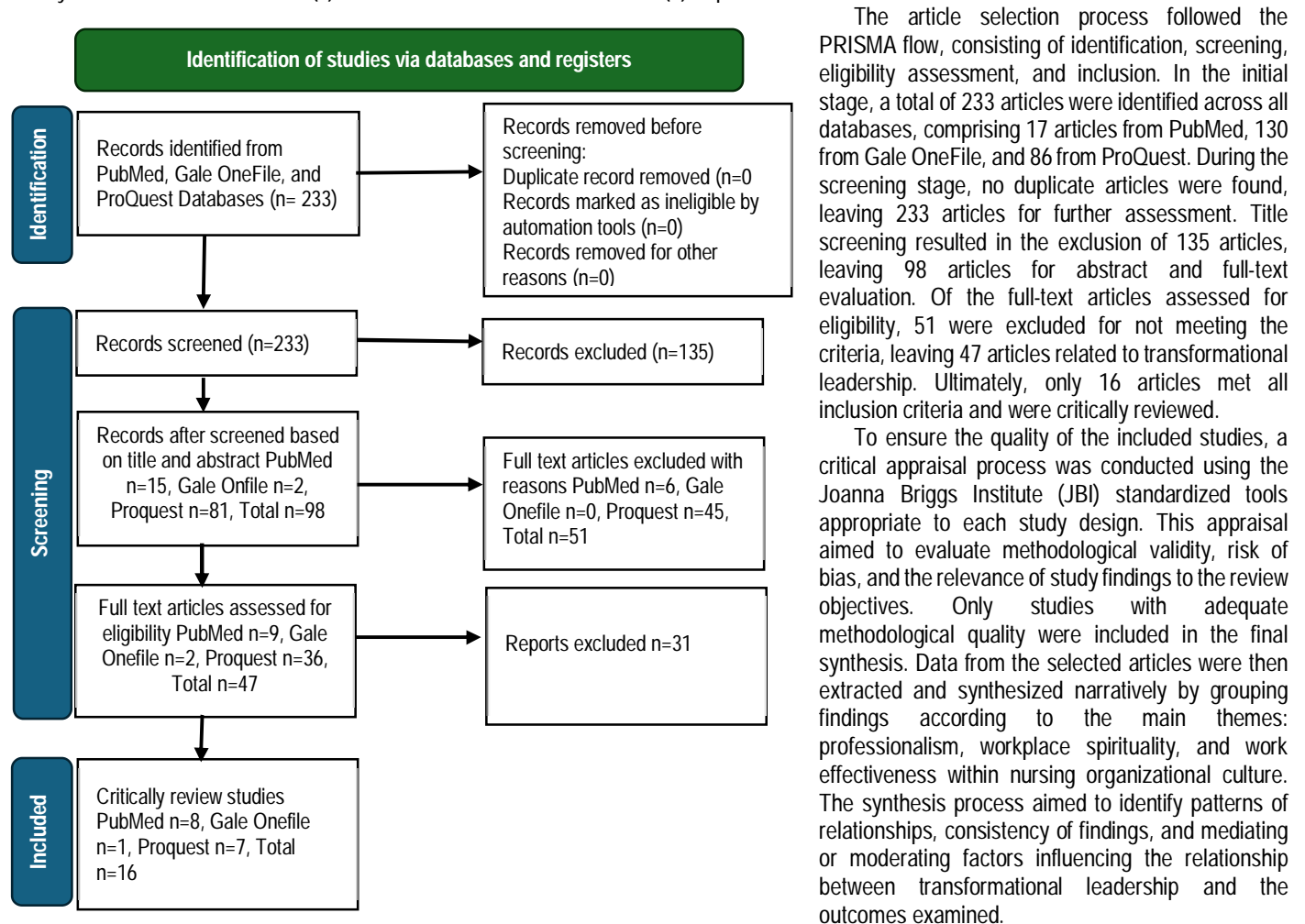


Figure 1. PRISMA flow diagram for article selection

RESULTS

A total of 16 articles that met the inclusion criteria were analyzed in this review. Most studies originated from hospitals across Asia, with several conducted in European settings, and represented diverse clinical environments including inpatient wards, intensive care units, and emergency departments. The majority of the studies employed quantitative cross-sectional designs with staff nurses as the primary respondents, although several studies also involved head nurses or adopted mixed-methods approaches. The instruments used were generally validated tools, such as the Multifactor Leadership Questionnaire (MLQ) for assessing transformational leadership, along with various standardized scales for measuring organizational culture, professionalism, and nursing performance.

Overall, the findings consistently demonstrated that transformational leadership exerts a positive influence on nursing organizational culture. In the domain of professionalism, transformational leadership was shown to enhance clinical autonomy and nurses' participation in decision-making processes. In relation to workplace spirituality, it contributed to greater meaning in work and improved psychological well-being. Regarding work effectiveness, transformational leadership was associated with improved performance, higher quality of care, and strengthened patient safety outcomes. However, the strength of these relationships varied across studies and was frequently mediated by organizational factors such as work culture, motivation, and psychological empowerment. These findings indicate that the interplay among transformational leadership, organizational culture, and nursing outcomes is complex and shaped by contextual characteristics within healthcare organizations.

Table 1. Summary of articles

No	Title	Population	Intervention	Comparison	Outcome	Conclusion
1	Impact of Leadership Style and Structural Empowerment on Nursing Group Power in ICU Settings [4]	Sample size: 120 ICU nurses (Registered Nurses). Characteristics: worked in various ICU units (general, cardiac, surgical, neurosurgery, post-anesthesia); majority female (80.8%); age 25–63 years (mean 42.5 ± 10); ICU experience 2–32 years; most held a Bachelor's degree (≈70%); no managerial positions.	Nurses' perceptions of the ward head's leadership style, particularly transformational leadership, and structural empowerment (access to opportunity, information, support, resources, formal and informal power), measured using MLQ-5X and CWEO-II. Higher scores indicate inspirational, empowering leadership supporting nurse autonomy.	No experimental comparison group. Cross-sectional observational design comparing: transformational vs transactional vs passive-avoidant leadership; high vs low structural empowerment.	Professionalism: increased through clinical autonomy, decision-making participation, and professional power. Workplace spirituality: reflected in meaningful work, feeling valued, team connectedness, and service values. Work effectiveness: improved nursing group power, team collaboration, effective communication, and organizational goal achievement. Significant results: TL → $\beta = 0.262$; $p = 0.004$; opportunity access → $\beta = 0.184$; $p = 0.021$; information access → $\beta = 0.244$; $p = 0.004$; informal power → $\beta = 0.160$; $p = 0.047$. Model explained 48.3% variance ($R^2 = 0.483$).	Transformational leadership supported by structural empowerment significantly enhances nurse professionalism, strengthens meaning and values of work (workplace spirituality), and improves ICU nursing team effectiveness.
2	Leaders' Role in Shaping Followers' Well-Being: Crossover in a Sample of Nurses [6]	1,505 nurses and 143 head nurses in four hospitals in northwest Italy. Majority female; nurses' mean age 43.41 ± 9.17; head nurses' mean age 53.07 ± 5.32; units: medical, surgical, ED, pediatrics; nested in 143 work groups.	Head nurses' work engagement and nurses' perceptions of transformational leadership measured using UWES and Transformational Leadership Scale. TL positioned as mediator in crossover process.	No experimental comparison. Multilevel cross-sectional analysis comparing high vs low leader work engagement and high vs low perceived TL.	Professionalism: increased through inspirational, supportive, developmental leadership. Workplace spirituality: reflected in enhanced psychological well-being, meaning of work, and job satisfaction. Work effectiveness: increased job satisfaction linked to service quality, retention, and performance. Significant: leader WE → TL ($\beta = 0.20$; $p < 0.05$); TL → job satisfaction ($\beta = 0.58$; $p < 0.001$); indirect effect WE → JS via TL ($\beta = 0.12$; $p < 0.05$).	Head nurses' work engagement positively "crosses over" to nurses through transformational leadership, improving professionalism, meaning of work, and work effectiveness.
3	Head Nurse Ethical Competence and Transformational Leadership: A Cross-Sectional Study [15]	329 head nurses from four tertiary hospitals in Changsha, China; majority female (98.2%); most aged 41–45; managerial experience ≥1 year; most held Bachelor–Master degrees; most had ethics training.	Ethical competence (legal knowledge, values, ethical reflection, ethical decision-making, ethical behavior) and transformational leadership measured using Ethical Competence Questionnaire and Head Nurse's TL Self-Rating Scale. Latent Profile Analysis used.	No experimental comparison. Cross-sectional comparison of latent ethical competence profiles: low, medium, high.	Professionalism: strengthened through ethical values, moral decision-making, leadership integrity. Workplace spirituality: reflected in moral inspiration, value reflection, and meaningful leadership roles. Work effectiveness: increased TL behaviors (personalized care, vision sharing, intellectual stimulation). Significant: three profiles identified; TL differed significantly ($F = 26.446$; $p < 0.001$); highest TL in high-competence profile (mean 4.822 ± 0.418).	Higher ethical competence is associated with significantly stronger transformational leadership. Strengthening ethical competence is key to enhancing professionalism, workplace spirituality, and leadership effectiveness.
4	Head Nurses' Leadership Styles and Emergency Department Nurses' Clinical Professional Autonomy in Iranian University Hospitals [9]	221 ED nurses in Alborz Province, Iran; majority female (71.9%); age 23–49 (mean 30.59 ± 4.44); experience 6 months–28 years; most had moderate job satisfaction; full-time ED staff.	Nurses' perceptions of TL, transactional, and laissez-faire leadership (MLQ) and clinical professional autonomy (Clinical Professional Autonomy Scale).	No experimental comparison. Cross-sectional correlational analysis comparing leadership styles and autonomy levels.	Professionalism: increased through clinical autonomy, professional confidence, independent decision-making. Workplace spirituality: reflected in meaningful practice, job satisfaction, and professional value recognition. Work effectiveness: improved clinical practice quality, performance, and ED service quality. Significant: TL ↔ autonomy ($r = 0.57$; $p < 0.01$).	Transformational leadership significantly increases ED nurses' clinical professional autonomy, strengthening professionalism, meaning of work, and work effectiveness.
5	Mediating Effect of Nursing Organizational Culture on the Relationship Between Ambidextrous Leadership and Staff Nurse Clinical Leadership [12]	472 staff nurses in a tertiary hospital in Hangzhou, China; majority female (96.6%); most aged 30–39; most held a Bachelor's degree (94.5%); 81.8% had never attended leadership training.	Nurses' perceptions of ambidextrous leadership (combination of transformational and transactional leadership) and nursing organizational culture measured using ALSS and C-NCAT. SEM used for mediation analysis.	No experimental comparison. Cross-sectional analysis comparing high vs low ambidextrous leadership and positive vs less positive organizational culture.	Professionalism: strengthened through enhanced clinical leadership, professional identity, and influence within the team. Workplace spirituality: reflected in shared values, professional commitment, meaning of work, and organizational attachment. Work effectiveness: improved clinical leadership, team collaboration, and service quality. Significant: ambidextrous leadership → culture ($\beta = 0.776$; $p < 0.001$); culture → clinical	Ambidextrous leadership does not directly influence clinical leadership but acts fully through nursing organizational culture. Culture is the key mechanism enhancing professionalism, workplace spirituality, and work effectiveness.

No	Title	Population	Intervention	Comparison	Outcome	Conclusion
					leadership ($\beta = 0.715$; $p < 0.001$); full mediation effect = 0.555 (CI 0.454–0.692).	
6	Head Nurses' Transformational Leadership and Nurses' Job Engagement: The Mediating Role of Horizontal Violence Among Nurses [18]	317 registered nurses in five tertiary hospitals in Southwest China; majority female (94.64%); aged 20–40; ≥ 1 year experience; worked ≥ 6 months under same head nurse.	Perceived transformational leadership (TLQ), horizontal violence as mediator, and job engagement (UWES-9).	No experimental comparison. Cross-sectional correlational analysis comparing high vs low TL and high vs low horizontal violence.	Professionalism: increased through dedication, focus, and vigor. Workplace spirituality: reflected in meaning of work, psychological well-being, and emotional attachment. Work effectiveness: improved job engagement, service quality, and patient safety. Significant: TL \rightarrow engagement ($\beta = 0.504$; $p < 0.001$); TL \rightarrow horizontal violence ($\beta = -0.498$; $p < 0.001$); mediation = 40.04%.	Transformational leadership significantly increases job engagement directly and indirectly by reducing horizontal violence. Strengthening TL is essential for professionalism, workplace spirituality, and work effectiveness.
7	Qualitative Analysis of Nurses' Performance and Experiences in Hospital Management in the Face of COVID-19 [19]	10 nurse managers in Rio de Janeiro hospitals restructured for COVID-19; roles: ICU coordinator, medical clinic coordinator, general nursing coordinator; managerial experience 2 months–5 years.	Leadership and management roles during hospital restructuring, analyzed using Donabedian's structure–process–outcome model. Transformational leadership prominent in crisis.	No comparison group. Qualitative descriptive–exploratory design with thematic analysis.	Professionalism: enhanced managerial competence, rapid decision-making, adaptive leadership. Workplace spirituality: reflected in meaning of work, moral responsibility, solidarity, resilience. Work effectiveness: improved restructuring success, resource optimization, communication flow, and patient safety.	Transformational and adaptive leadership were crucial for strengthening professionalism, meaning of work, and organizational effectiveness during the COVID-19 crisis.
8	Pengaruh Kepemimpinan Transformasional dan Budaya Organisasi terhadap Kinerja melalui Motivasi pada Perawat di Rumah Sakit Tria Dipa Jakarta [7]	78 nurses (census) in Tria Dipa Hospital, Jakarta; various units; diverse educational backgrounds; performance and motivation issues noted.	Transformational leadership and organizational culture with motivation as mediator; Likert-scale questionnaire; PLS-SEM analysis.	No experimental comparison. Cross-sectional analysis comparing high vs low TL, strong vs weak culture, and high vs low motivation.	Professionalism: increased through motivational leadership and strong organizational culture. Workplace spirituality: reflected in motivation, sense of belonging, meaning of work, and organizational attachment. Work effectiveness: improved nurse performance. Significant: TL \rightarrow motivation ($\beta = 0.335$; $p = 0.004$); culture \rightarrow motivation ($\beta = 0.572$; $p = 0.000$); motivation \rightarrow performance ($\beta = 0.821$; $p = 0.000$).	Transformational leadership and organizational culture significantly influence nurse performance through motivation. Motivation is a strong mediator enhancing professionalism, workplace spirituality, and work effectiveness.
9	Exploring the Nexus of Transformational Leadership, Job Satisfaction, and Creativity: Evidence from Pakistani Nurses [13]	283 registered nurses in five public hospitals in Southern Punjab, Pakistan; all female; majority aged 30–49; most held Bachelor's degrees.	Perceived TL (Carless 8-item scale), job satisfaction and work engagement as mediators; SEM-AMOS.	No experimental comparison. Cross-sectional analysis comparing high vs low TL, job satisfaction, and engagement.	Professionalism: increased through dedication, engagement, and creative expression. Workplace spirituality: reflected in meaning of work, job satisfaction, and emotional attachment. Work effectiveness: improved creativity and engagement. Significant: TL \rightarrow creativity ($\beta = 0.27$; $p < 0.01$); TL \rightarrow engagement ($\beta = 0.45$; $p < 0.01$); TL \rightarrow job satisfaction ($\beta = 0.29$; $p < 0.01$).	Transformational leadership significantly enhances creativity through job satisfaction and work engagement. These mediators strengthen professionalism, workplace spirituality, and work effectiveness.
10	Influence of Transformational Leadership Competence on Nurses' Intent to Stay: Cross-Sectional Study [2]	523 registered nurses in three academic hospitals in Riyadh; majority female (86.23%); mostly aged 20–40; most held Bachelor's degrees; >10 years experience.	Perceived TL competence (MLQ) across five dimensions; intent to stay measured with Intent to Stay Scale.	No experimental comparison. Cross-sectional correlational analysis comparing TL levels and TL dimensions.	Professionalism: strengthened through visionary, ethical, supportive leadership. Workplace spirituality: reflected in meaning of work, ethical values, trust, and organizational attachment. Work effectiveness: improved intent to stay, team stability, and service sustainability. Significant: TL \leftrightarrow intent to stay ($r = 0.22$; $p < 0.001$).	Transformational leadership significantly increases nurses' intent to stay. Strengthening TL competence enhances professionalism, meaning of work, and organizational effectiveness.
11	Transformational Leadership and Its Impact on Job Satisfaction and Personal Mastery for Nursing Leaders in Healthcare Organizations [20]	37 nursing leaders in public and private hospitals in Lazio, Italy; roles: nurse coordinators (73%) and organizational leaders (27%); age 30–66; postgraduate education common.	TL, transactional, management-by-exception, and laissez-faire leadership measured using MLQ-6S; job satisfaction (SEHC) and personal mastery (PMS).	No experimental comparison. Cross-sectional comparison of leadership styles and leadership roles.	Professionalism: reflected in leadership competence, self-development, and mastery of professional roles. Workplace spirituality: reflected in meaning of work, self-control, life purpose, and job satisfaction. Work effectiveness: shown through leader satisfaction, leadership stability, and organizational management quality. Significant: idealized influence negatively predicted job satisfaction ($\beta = -0.609$; $p < 0.001$).	Leadership significantly affects job satisfaction, but not all TL dimensions have positive effects. Contextual leadership approaches are essential for professionalism, meaning of work, and organizational effectiveness.
12	The Effect of Transformational Leadership on	317 clinical nurses in four private hospitals in Istanbul; majority	Perceived TL (19-item scale), psychological empowerment as	No experimental comparison. Cross-sectional	Professionalism: increased through creativity, new ideas, and clinical initiative. Workplace spirituality:	Transformational leadership significantly increases innovative

No	Title	Population	Intervention	Comparison	Outcome	Conclusion
	Nurses' Innovative Behaviors: The Mediating Effect of Psychological Empowerment [14]	female (77.3%); mean age 27.41 ± 5.32; average experience 6.61 years.	mediator, innovative behavior measured using Innovative Behavior Scale; SEM analysis.	analysis comparing high vs low TL and empowerment.	reflected in meaning, competence, autonomy, and impact. Work effectiveness: improved innovative behavior supporting service quality and sustainability. Significant: TL → empowerment ($\beta = 0.358$; $p < 0.001$); TL → innovation ($\beta = 0.717$; $p < 0.001$).	behavior directly and indirectly through psychological empowerment. Empowerment is a key mechanism enhancing professionalism, workplace spirituality, and work effectiveness.
13	Transformational Nurse Leaders and Nurse Well-Being: Examining Mediating Influences of Organizational Justice and Quality of Work Life [3]	Quantitative: 580 nurses; Qualitative: 25 nurses (FGD); five hospitals in Joud, Saudi Arabia; majority female; mean age 35.6 ± 8.2.	TL measured with GTL; mediators: organizational justice and QWL; outcomes: emotional exhaustion, job satisfaction, perceived stress; mixed-methods design.	No experimental comparison. Statistical comparison of high vs low TL, justice, and QWL; qualitative exploration.	Professionalism: strengthened through inspirational leadership, fairness, and supportive work environment. Workplace spirituality: reflected in meaning, justice, work-life balance, emotional well-being. Work effectiveness: reduced burnout, increased satisfaction, reduced stress. Significant: TL → exhaustion ($\beta = -0.48$); TL → satisfaction ($\beta = 0.53$).	Transformational leadership improves nurse well-being directly and indirectly through organizational justice and QWL. Strengthening TL, justice, and QWL enhances professionalism, spirituality, and effectiveness.
14	The Development of Transformational Leadership Model Based on Caring as an Effort to Increase Nursing Performance [16]	115 staff nurses in Lavalette Hospital, Indonesia; majority female (75.7%); aged 21–40; most held Diploma in Nursing; 80% permanent staff.	Development of a caring-based TL model integrating TL dimensions with Swanson's caring theory; PLS-SEM analysis.	No experimental comparison. Cross-sectional explanatory analysis of personal, organizational, staff, and job factors.	Professionalism: strengthened through caring standards, collaboration, empathy, responsiveness, courtesy, and honesty. Workplace spirituality: reflected in caring values, meaningful service, and emotional connection. Work effectiveness: improved nursing performance.	Caring-based transformational leadership strengthens professionalism, meaning of work, and nursing performance.
15	Transformational Leadership and Nurses' Organizational Commitment: The Mediating Role of Psychological Empowerment [10]	Sample size: 402 registered nurses from three tertiary hospitals; majority female; age range 22–55; average work experience 7.8 years; worked in medical, surgical, ICU, and emergency units.	Perceived transformational leadership measured using MLQ; psychological empowerment measured using Spreitzer's Psychological Empowerment Scale; organizational commitment measured using Meyer & Allen's Organizational Commitment Scale.	No experimental comparison. Cross-sectional correlational analysis comparing high vs low TL and high vs low empowerment.	Professionalism: strengthened through empowerment, autonomy, and professional confidence. Workplace spirituality: reflected in meaning, competence, self-determination, and impact. Work effectiveness: improved organizational commitment, stability, and performance. Significant: TL → empowerment ($\beta = 0.41$; $p < 0.001$); empowerment → commitment ($\beta = 0.52$; $p < 0.001$); partial mediation confirmed.	Transformational leadership significantly enhances nurses' organizational commitment directly and indirectly through psychological empowerment. Empowerment is a key mechanism supporting professionalism, workplace spirituality, and work effectiveness.
16	The Influence of Transformational Leadership on Patient Safety Culture Among Nurses [11]	Sample size: 289 nurses from five accredited hospitals; majority female; age 23–50; worked in inpatient, ICU, ED, and perioperative units; minimum 1 year experience.	Perceived transformational leadership measured using MLQ; patient safety culture measured using Hospital Survey on Patient Safety Culture (HSOPSC).	No experimental comparison. Cross-sectional analysis comparing high vs low TL and strong vs weak safety culture.	Professionalism: reflected in adherence to standards, accountability, and safety-oriented practice. Workplace spirituality: reflected in shared values, trust, and meaningful contribution to patient well-being. Work effectiveness: improved patient safety culture, error reporting, teamwork, and communication openness. Significant: TL → safety culture ($\beta = 0.36$; $p < 0.001$); TL predicted teamwork climate, communication, and non-punitive response to error.	Transformational leadership significantly improves patient safety culture. Strengthening TL enhances professionalism, shared meaning of work, and overall effectiveness of nursing services.

DISCUSSION

The synthesis of the 16 included articles demonstrates that the ward head's transformational leadership has a consistent and significant influence in shaping a nursing organizational culture that affects professionalism, workplace spirituality, and nurses' work effectiveness. These findings reinforce the transformational leadership theory proposed by Bass and Avolio, which emphasizes that leaders who provide inspiration, intellectual stimulation, and individualized consideration can foster deep changes in the values and behaviors of organizational members [22]. In the nursing context, these results align with previous studies showing that transformational leadership enhances organizational commitment, work engagement, and the quality of healthcare services [1,3]. This synthesis contributes new insights by confirming that the influence of transformational leadership is not only direct but also mediated by organizational culture as a central mechanism within nursing organizations [10].

Influence on professionalism within organizational culture

Regarding professionalism, the review indicates that transformational leadership enhances clinical autonomy, ethical competence, and nurses' participation in decision-making processes [4,9]. These findings are consistent with Kanter's theory of structural empowerment, which posits that

access to information, support, and resources strengthens individuals' professional capacity within organizations [23,24]. Professionalism is also shaped by the ethical competence of nursing leaders. Study [25] shows that head nurses with higher ethical competence demonstrate stronger transformational leadership, suggesting that moral integrity and ethical reflection are essential for cultivating a professional culture grounded in ethical values.

Several studies also highlight that transformational leadership fosters creativity and innovation among nurses. Study [14] found that transformational leadership enhances innovative behavior through psychological empowerment, while study [13] demonstrated that transformational leadership increases creativity through job satisfaction and work engagement as mediators. However, not all studies show a fully linear relationship. Study [20] reported that some dimensions of transformational leadership do not necessarily correlate positively with leaders' personal mastery, indicating that the effectiveness of transformational leadership is influenced by organizational context and leader characteristics.

Moreover, several studies emphasize that the influence of leadership on professionalism is often mediated by organizational factors. Study [12] found that organizational culture fully mediates the relationship between leadership and nurses' clinical leadership. Similarly, study [16] showed that a caring-based transformational leadership model enhances nursing performance through the internalization of professional values such as empathy, collaboration, and service responsibility. Overall, the synthesis indicates that transformational leadership significantly shapes an organizational culture that supports nursing professionalism, although the strength of this relationship is influenced by contextual factors such as leader competence, organizational characteristics, and mediating mechanisms.

Influence on workplace spirituality within organizational culture

In the dimension of workplace spirituality, transformational leadership also plays an important role in shaping meaningful work experiences, team connectedness, and psychological well-being among nurses [22,26,27]. These findings support the concept of workplace spirituality, which emphasizes the importance of values, meaning, and connectedness in enhancing the quality of work experiences [27,28]. Several studies show that transformational leadership enhances psychological well-being and meaning in work. Study [6] found that head nurses' work engagement increases nurses' job satisfaction through transformational leadership, indicating that leaders' psychological states influence nurses' perceptions of leadership and subsequently their work experiences.

These findings are reinforced by studies [3,26], which show that transformational leadership significantly affects nurses' well-being through organizational justice and quality of work life. Transformational leadership reduces emotional exhaustion and increases job satisfaction—key indicators of workplace spirituality. Other studies highlight the role of transformational leadership in fostering a harmonious and supportive work environment. Study [18] found that transformational leadership reduces horizontal violence among nurses while increasing job engagement, demonstrating its role in strengthening interpersonal relationships and creating a more meaningful and collaborative work culture.

However, the influence of leadership on workplace spirituality is often mediated by psychological variables. Study [13] showed that transformational leadership does not directly increase creativity but does so through job satisfaction and work engagement, suggesting that workplace spirituality develops through complex psychological processes influenced by organizational factors. In crisis situations, transformational leadership also helps maintain meaning in work and professional commitment. Study [19] found that during the COVID-19 pandemic, transformational leadership strengthened team solidarity, nurse resilience, and service commitment under high work pressure. Collectively, these findings indicate that transformational leadership plays a crucial role in shaping a nursing organizational culture that supports workplace spirituality through enhanced psychological well-being, positive interpersonal relationships, and meaningful work experiences.

Influence on work effectiveness within organizational culture

Transformational leadership also significantly contributes to improving work effectiveness in nursing organizations. Work effectiveness in healthcare is reflected in indicators such as nurse performance, service quality, patient safety, organizational innovation, and nurse retention [23]. These findings align with organizational performance theory, which states that work effectiveness results from the interaction between leadership, individuals, and organizational culture [29].

Several studies show consistent relationships between transformational leadership and improved nurse performance. Study [7] found that transformational leadership and organizational culture significantly influence nurse performance through work motivation as a mediator, highlighting the strong role of motivation in linking leadership to performance. Study [21] further supports this by showing a positive relationship between transformational leadership and the quality of nursing care.

Transformational leadership also influences patient safety, a key indicator of organizational effectiveness. Study [8] found that transformational leadership significantly affects safety practices directly and through patient safety culture as a mediator. However, some studies show that leadership's influence on organizational effectiveness often depends on organizational culture as a mediating mechanism. Study [12] found that leadership does not directly influence clinical leadership but does so fully through organizational culture, indicating that culture is a key factor linking leadership to team performance.

Additionally, study [2] found that transformational leadership significantly correlates with nurses' intent to stay, an important indicator of organizational effectiveness related to workforce stability and service sustainability. Several studies also show that transformational leadership promotes organizational innovation and adaptability. Studies [13,14] found that transformational leadership enhances innovative behavior and creativity through psychological empowerment and work engagement.

Overall, the synthesis shows that transformational leadership has a broad influence on work effectiveness in nursing organizations, although this influence typically occurs through organizational mechanisms such as culture, motivation, psychological empowerment, and job satisfaction.

Overall contribution and limitations

Overall, this study contributes by demonstrating that nursing organizational culture is a key factor mediating the influence of transformational leadership on various outcomes. These findings extend previous understanding by emphasizing that leadership interventions must be integrated with organizational culture strengthening and comprehensive nursing management systems. A holistic approach is therefore required in developing leadership at the ward-head level to achieve sustainable improvements in healthcare service quality.

However, this study has several limitations. First, most included articles used cross-sectional designs, limiting the ability to infer causal relationships. Second, there is heterogeneity in study contexts—including country, hospital type, and respondent characteristics—which may affect generalizability. Third, limitations in database selection and publication timeframe (2020–2025) may have resulted in relevant studies being missed. Publication bias and methodological variability across studies also pose limitations. Future research is recommended to employ

longitudinal or experimental designs and broader literature coverage to strengthen empirical evidence on the relationship between transformational leadership and nursing organizational culture.

CONCLUSION

This study concludes that the ward head's transformational leadership has a significant influence on nursing organizational culture, particularly in enhancing professionalism, workplace spirituality, and nurses' work effectiveness. Organizational culture serves as a key mechanism mediating the relationship between leadership and these outcomes. Strengthening transformational leadership is therefore an essential strategy for supporting improvements in the quality of nursing services within hospital settings.

Healthcare institutions are encouraged to strengthen the implementation of transformational leadership among ward heads through structured leadership training and managerial competency development programs. In addition, organizations should foster a work culture that supports professionalism, workplace spirituality, and team collaboration to enhance nursing performance and the overall quality of care. Future research is recommended to employ more diverse empirical designs to explore additional mediating factors that may influence the relationship between transformational leadership, organizational culture, and various healthcare service outcomes.

Ethical consideration, competing interest and source of funding

-The preparation of this literature review adhered to ethical principles throughout the research process. All sources were obtained legitimately and selected based on their credibility and relevance. Proper attribution was given to all original authors in accordance with established referencing guidelines, and no plagiarism occurred in the development of this review.

-The author declares that there are no conflicts of interest associated with the writing of this literature review. All sources were analyzed and presented objectively, without influence from any individual, group, or organization.

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