

The Mediating Role of Transformational Leadership of Nurse Managers on the Condition for Work Effectiveness and Engagement of Nurses

Philip Claro A. Desuyo, RN and Joan P. Bacarisas, DM, MAN, RN

Graduate School of Allied Health Sciences, University of the Visayas

DOI: <https://doi.org/10.51584/IJRIAS.2026.11060071>

Received: 02 June 2026; Accepted: 08 June 2026; Published: 23 June 2026

ABSTRACT

Nursing work environments and leadership practices play an essential role in sustaining nurses motivation, productivity, and professional engagement within healthcare institutions. However, despite the importance of supportive workplace conditions and effective leadership, limited studies have examined how transformational leadership influences the relationship between conditions for work effectiveness and work engagement among nurses in private hospital settings in Cebu City. This study aimed to determine the levels of conditions for work effectiveness, transformational leadership, and work engagement among nurses, as well as examine the relationship among variables and the mediating role of transformational leadership. The study utilized a quantitative descriptive–correlational design with mediation analysis among 100 nurses employed in a Level II private hospital in Cebu City using complete enumeration sampling. Standardized instruments namely the CWEQ-II, MLQ-5X, and UWES-9 were used in data collection. Mean score, standard deviation, Pearson r, and regression-based mediation analysis were employed. Findings revealed that nurses experienced high conditions for work effectiveness, high transformational leadership, and very high work engagement. Conditions for work effectiveness significantly correlated with work engagement. Transformational leadership significantly mediated the relationship, indicating partial mediation. The study concluded that supportive workplace conditions and transformational leadership contribute significantly in strengthening nurses work engagement.

Keywords: Conditions for work effectiveness, Transformational leadership, Work engagement, Nurses, Mediation analysis

INTRODUCTION

Nursing remains a cornerstone of healthcare delivery, ensuring patient safety, continuity of care, and the efficient functioning of healthcare systems. As patient needs, healthcare technologies, and organizational demands continue to evolve, nurses are expected to perform effectively while maintaining commitment and resilience in clinical practice. Work effectiveness has therefore become a critical concern in healthcare organizations, encompassing the physical, social, psychological, organizational, and policy conditions that enable nurses to perform accurately and professionally. Consistent with the concept of structural empowerment, access to resources, supportive supervision, effective communication, opportunities for growth, and collaborative work environments are essential in promoting effective nursing practice and quality patient care (WHO, 2023; ICN, 2022; Laschinger et al., 2001; Ibrahim et al., 2024). Closely associated with work effectiveness is work engagement, a positive state characterized by vigor, dedication, and involvement in work responsibilities. Research indicates that supportive organizational conditions significantly enhance nurses engagement, leading to improved individual and organizational outcomes (Nurmeksela et al., 2025).

Transformational leadership has emerged as an important leadership approach in nursing management due to its ability to foster staff development, innovation, teamwork, and professional commitment. Through inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence, transformational nurse managers create environments that encourage nurses to remain engaged and productive.

Recent studies have demonstrated that transformational leadership positively influences job satisfaction, motivation, and workplace performance among nurses (Alruwaili, 2025). Although previous studies have established relationships among work effectiveness, transformational leadership, and work engagement, important gaps remain. Most studies have focused only on direct relationships among variables, with limited attention given to the mediating role of transformational leadership. Furthermore, empirical evidence examining these relationships within diverse nursing populations and hospital settings remains limited. Addressing these methodological and knowledge gaps can provide a deeper understanding of how leadership processes influence workplace conditions and nurse engagement.

This study therefore examines the factors affecting work effectiveness, the extent of work engagement among nurses, and the mediating effect of transformational leadership of nurse managers. The study supports Sustainable Development Goal (SDG) 3 by promoting a competent and supported healthcare workforce and SDG 8 by encouraging safe, supportive, and productive workplaces. Its findings may assist nursing management in designing leadership development programs, organizational strategies, and workplace policies that strengthen work effectiveness and sustain nurse engagement. Moreover, understanding the mediating role of transformational leadership may provide nurse managers and hospital administrators with evidence-based approaches for enhancing commitment, professional satisfaction, and workforce sustainability. The researcher's extensive clinical nursing experience further strengthens the relevance and practical significance of the study, providing valuable insight into workplace dynamics, leadership influences, and factors affecting nurses performance and engagement.

RESEARCH QUESTIONS

This study was to assess the mediating role of transformational leadership of nurses managers on the condition for work effectiveness and engagement of nurses in a level 2 private hospital in Cebu City for the first half of 2026.

The study specifically answered the following queries:

1. What was the level of conditions for work effectiveness among nurses in terms of:
 - 1.1 access to opportunity;
 - 1.2 access to information;
 - 1.3 access to support;
 - 1.4 access to resources;
 - 1.5 formal power; and
 - 1.6 informal power?
2. What was the level of work engagement among nurses in terms of:
 - 2.1 vigor;
 - 2.2 dedication; and
 - 2.3 absorption?
3. What was the level of transformational leadership of nurse managers as perceived by nurses in terms of:
 - 3.1 idealized influence;
 - 3.2 inspirational motivation;
 - 3.3 intellectual stimulation; and
 - 3.4 individualized consideration?
4. Was there a significant relationship between conditions for work effectiveness and work engagement of nurses?
5. Was there a significant relationship between condition for work effectiveness and work engagement when mediated by the nurse managers transformational leadership?
6. What work effectiveness and engagement enhancement plan for nurses was proposed based on the findings of the study?

Statement of Null Hypothesis

H₀₁: There was no significant relationship between conditions for work effectiveness and work engagement of nurses.

H₀₂: There was no significant relationship between conditions for work effectiveness and work engagement of nurses when mediated by the nurse managers transformational leadership.

REVIEW OF RELATED LITERATURE AND STUDIES

Conditions for Work Effectiveness Among Nurses. Structural empowerment, commonly reflected through conditions for work effectiveness, remains a critical factor influencing nurses professional performance, well-being, and organizational outcomes. Recent studies consistently demonstrate that access to opportunities, information, support, resources, and formal and informal power enables nurses to function effectively in clinical settings. Evidence shows that structural empowerment contributes to professional adjustment among newly graduated nurses, enhances confidence and efficiency in clinical responsibilities, reduces moral distress, strengthens patient safety culture, and improves perceptions of quality care (Sarıköse & Şenol Çelik, 2024; Rababah et al., 2021; Hjalmarsson et al., 2022; Youssef et al., 2025). Furthermore, empowered work environments have been associated with stronger organizational commitment, increased intention to remain in the profession, lower burnout, improved professional well-being, and greater workforce sustainability (Alshammari et al., 2024; Çelik et al., 2024). Recent findings also indicate that higher levels of structural empowerment are linked to reduced missed nursing care, better teamwork, and more favorable perceptions of staffing adequacy, highlighting its direct contribution to effective nursing performance and quality patient care. Contemporary nursing literature further emphasizes that structural empowerment serves as a fundamental organizational mechanism that promotes autonomy, confidence, professional control, and positive healthcare outcomes, with nurse managers playing a vital role in facilitating access to knowledge, opportunities, resources, and supportive leadership. Collectively, the evidence underscores that conditions for work effectiveness continue to be a significant determinant of nurse performance, professional satisfaction, organizational commitment, retention, and quality healthcare delivery (Youssef et al., 2025; Çelik et al., 2024).

Work Engagement Among Nurses. Work engagement remains a critical aspect of nursing practice because of its direct influence on performance, well-being, and quality patient care. Defined as a positive work-related state characterized by vigor, dedication, and absorption, work engagement has consistently been associated with favorable individual and organizational outcomes. Recent studies show that nurses who actively shape their work roles and have access to personal and organizational resources demonstrate higher levels of engagement and well-being (Han, 2023). Similarly, workplace support, professional relationships, and positive organizational conditions have been identified as significant determinants of engagement, with nurses reporting greater energy, dedication, and involvement when they perceive supportive work environments (Maung et al., 2025; Kubo et al., 2024). Evidence further indicates that nurses maintained moderate to high levels of engagement even during demanding situations such as the COVID-19 pandemic, suggesting that engagement serves as a protective factor that supports emotional well-being and resilience in challenging clinical settings (Work Engagement and Compassion Fatigue Among Nursing Professionals, 2025). Moreover, structural empowerment has been found to significantly enhance work engagement, as nurses with greater access to empowering workplace structures, professional support, and leadership resources exhibit higher levels of occupational engagement (Zhang et al., 2025). Collectively, contemporary research demonstrates that work engagement is not merely an individual characteristic but an outcome strongly influenced by workplace conditions, leadership support, organizational resources, and empowering professional environments that sustain nurses motivation, commitment, and performance in clinical practice.

Transformational Leadership of Nurse Managers. Transformational leadership continues to be a widely studied leadership approach in nursing because of its influence on staff motivation, empowerment, engagement, and organizational outcomes. Characterized by inspiration, intellectual stimulation, individualized consideration, and ethical leadership practices, transformational leadership encourages nurses to perform beyond expected standards and contribute positively to organizational goals. Recent studies have consistently

demonstrated that nurses who perceive their managers as exhibiting transformational leadership behaviors report higher levels of work engagement, motivation, empowerment, and positive workplace experiences (Nurmeksela, Schavoronkoff, & Jokiniemi, 2025). Similarly, transformational leadership has been found to significantly enhance nurse engagement and empowerment through supportive behaviors, encouragement, and inspirational communication across various healthcare settings (García-Sierra & Martínez-Zaragoza, 2023). Evidence further indicates that transformational leadership positively influences job satisfaction, organizational commitment, retention, and the development of healthy work environments where nurses feel supported and professionally valued (Transformational Leadership Practices of Nurse Managers, 2022). Contemporary nursing leadership literature also emphasizes that transformational leaders foster professional growth, collaboration, and workplace effectiveness while influencing important psychological outcomes such as empowerment, motivation, and organizational commitment (García-Sierra & Martínez-Zaragoza, 2023). Collectively, these findings support the growing recognition of transformational leadership as a significant organizational mechanism that not only improves nurse performance and engagement but also serves as a potential mediating factor in explaining the relationship between workplace conditions and nursing outcomes.

Relationship Between Conditions for Work Effectiveness and Work Engagement Among Nurses. The literature consistently demonstrates that conditions for work effectiveness, commonly viewed through the lens of structural empowerment, are strongly associated with work engagement among nurses. Structural empowerment refers to nurses access to opportunities, resources, information, and support that enable them to function effectively and remain motivated in their professional roles. Recent studies have shown that nurses who perceive higher levels of workplace support, organizational resources, professional opportunities, and empowering structures exhibit greater vigor, dedication, and absorption in their work (Zhang et al., 2025). Similar findings revealed significant positive relationships between structural empowerment and work engagement, indicating that empowering workplace environments promote sustained commitment, motivation, and active participation in clinical practice (Relationship between Structural Empowerment, Work Engagement, and Job Satisfaction among Nursing Staff, 2024). Furthermore, supportive work conditions enhance professional autonomy, confidence, teamwork, patient care commitment, and quality of care while reducing missed nursing care, highlighting the important role of organizational resources in fostering engagement and positive workplace outcomes (The Relationship Between Nurses Work Effectiveness and Work Engagement, 2021; Examining the Relationship Between Hospital Nurses Structural Empowerment, Missed Nursing Care, and Quality of Care, 2025). Collectively, the evidence supports the view that conditions for work effectiveness function as important organizational resources that strengthen nurses motivation, professional involvement, and engagement in clinical practice (Zhang et al., 2025).

Recent research further suggests that transformational leadership plays a significant role in strengthening the relationship between work effectiveness and work engagement. Studies consistently report that transformational leadership behaviors are positively associated with higher levels of nurse engagement, empowerment, motivation, organizational commitment, and positive workplace experiences (Nurmeksela, Schavoronkoff, & Jokiniemi, 2025; García-Sierra & Martínez-Zaragoza, 2023). Evidence indicates that transformational leaders create empowering environments through support, inspiration, collaboration, trust, and professional development opportunities, thereby enhancing workplace conditions and sustaining engagement among nurses (Impact of Leadership Style and Structural Empowerment on Nursing Group Power, 2024). Moreover, leadership mediation models have demonstrated that transformational leadership functions as an intervening mechanism linking organizational characteristics to positive nursing outcomes, with studies showing significant indirect effects through empowerment, work engagement, organizational justice, and quality of work life (Alruwaili, 2025; Huang et al., 2025). Overall, contemporary literature consistently supports the direct and positive relationships among conditions for work effectiveness, transformational leadership, and work engagement, suggesting that empowering organizational structures combined with supportive leadership practices contribute significantly to enhanced engagement and positive workplace experiences among nursing professionals

Relationship Between Conditions for Work Effectiveness and Work Engagement When Mediated by Transformational Leadership. Transformational leadership has increasingly been recognized as a key mechanism through which conditions for work effectiveness influence work engagement among nurses.

Conditions for work effectiveness, commonly conceptualized as structural empowerment, provide nurses with access to opportunities, support, information, resources, and power that enable effective professional functioning. However, recent evidence suggests that leadership behaviors, particularly transformational leadership, play a crucial role in translating these workplace resources into higher levels of engagement. Studies have shown that transformational leadership is positively associated with both structural empowerment and work engagement, with nurses reporting greater engagement, motivation, and positive perceptions of workplace conditions when their managers demonstrate transformational leadership behaviors (García-Sierra & Martínez-Zaragoza, 2023; Nurmeksela, Schavoronkoff, & Jokiniemi, 2025). These findings indicate that leadership strengthens the influence of organizational structures on engagement outcomes by fostering supportive work environments that encourage professional commitment, dedication, and motivation.

Further evidence supports the mediating role of transformational leadership in linking workplace conditions with positive nursing outcomes. Research has demonstrated that transformational leaders enhance employee engagement by creating empowering environments characterized by access to information, opportunities, support, and resources, thereby influencing how employees perceive workplace conditions and their level of engagement. Studies among intensive care nurses further revealed that transformational leadership affects work outcomes through motivational pathways, including work engagement, empowerment, and other organizational resources (Huang et al., 2025). Earlier nursing studies similarly found that structural empowerment mediates the relationship between transformational leadership and nurse engagement, suggesting that leadership behaviors influence engagement both directly and indirectly through empowerment mechanisms. Contemporary nursing leadership literature therefore emphasizes that transformational leaders foster autonomy, professional growth, collaboration, innovation, and supportive workplace environments that serve as antecedents of engagement. Collectively, the evidence indicates that transformational leadership functions as an important organizational mechanism that converts structural workplace resources into motivational outcomes and professional engagement, supporting its role as a mediator between conditions for work effectiveness and work engagement among nurses (García-Sierra & Martínez-Zaragoza, 2023; Huang et al., 2025; Nurmeksela, Schavoronkoff, & Jokiniemi, 2025).

RESEARCH METHODOLOGY

Design. The study employed a quantitative descriptive-correlational design with mediation analysis. The descriptive component was used to determine the levels of conditions for work effectiveness, transformational leadership, and work engagement among nurses. The correlational component examined the relationships among these variables. Mediation analysis was performed to determine whether transformational leadership served as a mediating variable between conditions for work effectiveness (independent variable) and work engagement (dependent variable). This design enabled the researcher to examine both the direct relationships among the variables and the indirect effect of transformational leadership on nurse work engagement.

Environment. This study was conducted in a Level 2 government hospital in Cebu City, Philippines.

Respondents. The study involved 100 registered nurses from the hospital, representing 84.75% of the total nursing population of 118.

Sampling Design. This study utilized complete enumeration sampling, wherein all eligible nurses were invited to participate.

Inclusion Criteria and Exclusion Criteria. The study included registered nurses who were actively employed in the hospital, involved in direct or indirect patient care, had at least three months of service, possessed a valid nursing license, and voluntarily provided informed consent. Eligibility was not restricted by age, gender, civil status, educational attainment, or employment status. Excluded from the study were nurses on extended leave, those occupying purely managerial or executive administrative positions, externally hired or temporary nurses not integrated into the hospital's nursing management system, and newly hired nurses undergoing orientation or with insufficient clinical exposure during the data collection period.

Instrument. The study utilized three validated and widely used instruments to measure the major variables: conditions for work effectiveness, transformational leadership, and work engagement among nurses.

Conditions for work effectiveness were assessed using the Conditions for Work Effectiveness Questionnaire-II (CWEQ-II) developed by Laschinger (2001), which measures access to opportunity, information, support, resources, formal power, and informal power based on Kanter’s Structural Empowerment Theory. Transformational leadership was measured using the Multifactor Leadership Questionnaire (MLQ-5X) developed by Bass and Avolio (1995), focusing on idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation. Work engagement was evaluated using the Utrecht Work Engagement Scale (UWES-9) developed by Schaufeli and Bakker (2003), which measures vigor, dedication, and absorption. Mean scores were computed and interpreted using the prescribed scales of each instrument, with higher scores indicating higher levels of the measured construct. All instruments demonstrated strong psychometric properties, with reported Cronbach’s alpha coefficients ranging from .70 to .95, indicating acceptable to excellent reliability and validity.

Data Gathering Procedures. Data collection started after obtaining institutional approval, ethical clearance from the Institutional Review Board (IRB), and a formal notice to proceed. The researcher coordinated with the Nursing Service Office and personally administered the questionnaires to qualified nurse respondents through face-to-face distribution, ensuring proper orientation regarding the study, voluntary participation, and confidentiality of responses. Completed questionnaires were reviewed for completeness, coded, and encoded in Microsoft Excel before being subjected to descriptive, correlational, and mediation analyses. The findings were presented and interpreted in relation to relevant literature and studies. Following the completion and approval of the study, all questionnaires and data collection materials were securely disposed of in accordance with ethical research standards to maintain confidentiality.

Statistical Treatment of Data. Descriptive and inferential statistics were employed to analyze the data. Mean score and standard deviation were used to determine the levels of conditions for work effectiveness, transformational leadership, and work engagement among nurses. Pearson Product–Moment Correlation Coefficient (Pearson *r*) was utilized to examine the relationships among conditions for work effectiveness, transformational leadership, and work engagement. Mediation analysis was performed to determine whether transformational leadership of nurse managers mediated the relationship between conditions for work effectiveness and work engagement, assessing both the direct and indirect effects among the study variables.

Ethical Considerations. Ethical considerations are an essential component of any research study. The study was submitted to the ethics committee of both the university and the hospital. Ethical approval was sought prior to the start of data gathering to ensure that the welfare of the respondents was protected.

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

Table 1 Level of Conditions for Work Effectiveness Among Nurses

Dimensions	Mean score	SD	Interpretation
Access to Opportunity			
1. Opportunity for growth in my role	4.06	0.88	Quite a bit
2. Opportunity to learn new skills	4.10	0.85	Quite a bit
3. Opportunity for advancement	4.05	0.90	Quite a bit
Factor mean	3.65	0.71	High
Access to Information			
4. Information about hospital goals	3.95	0.87	Quite a bit
5. Information about changes affecting my work	3.94	0.89	Quite a bit
6. Information about patient care standards	3.99	0.84	Quite a bit
Factor Mean	3.96	0.69	High
Access to Support			
7. Feedback on performance	3.80	0.92	Quite a bit

8. Guidance from supervisors	3.86	0.88	Quite a bit
9. Emotional support when needed	3.79	0.94	Quite a bit
Factor Mean	3.82	0.74	High
Access to Resources			
10. Adequate staffing	3.45	0.98	Quite a bit
11. Sufficient time to complete tasks	3.61	0.93	Quite a bit
12. Necessary supplies and equipment	3.68	0.91	Quite a bit
Factor Mean	3.58	0.80	High
Formal Power			
13. Flexibility in decision-making	3.77	0.90	Quite a bit
14. Visibility in important activities	3.81	0.88	Quite a bit
Factor Mean	3.79	0.76	High
Informal Power			
15. Collaboration with other departments	3.72	0.91	Quite a bit
16. Strong professional networks	3.76	0.89	Quite a bit
Factor mean	3.74	0.78	High
Grand mean	3.83	0.75	High Conditions of Work Effectiveness

Note. $n=100$.

Legend: A score of 1.00 to 1.80 indicates a very low level of conditions for work effectiveness (none), 1.81 to 2.60 indicates a low level of conditions for work effectiveness (a little), 2.61 to 3.40 indicates a moderate level of conditions for work effectiveness (some), 3.41 to 4.20 indicates a high level of conditions for work effectiveness (quite a bit), and 4.21 to 5.00 indicates a very high level of conditions for work effectiveness (a lot).

As shown in Table 1, the findings indicate that nurses generally perceived favorable conditions for work effectiveness, suggesting that the hospital provides opportunities, information, support, resources, and empowering structures that enable nurses to perform their duties effectively. Among the dimensions, access to opportunity obtained the highest rating, indicating that nurses perceived adequate opportunities for learning, professional development, leadership roles, and career advancement. Access to information, support, formal power, and informal power were likewise highly rated, reflecting positive perceptions of communication, guidance, participation in decision-making, and collaborative working relationships. These findings suggest that nurses feel valued, supported, and professionally empowered within the organization, which contributes to motivation, engagement, and effective nursing practice. Previous studies have similarly reported that supportive organizational conditions, professional development opportunities, effective communication, and shared decision-making positively influence nurse engagement, work effectiveness, satisfaction, and organizational commitment (Wei et al., 2021; Al Sabei et al., 2021; Boamah et al., 2022; Mudallal et al., 2021).

Although access to resources was also rated highly, it received one of the comparatively lower ratings among the dimensions, suggesting that challenges related to staffing, workload, time constraints, and resource availability may still exist. Nonetheless, the overall findings demonstrate that nurses perceive their work environment as supportive and empowering. The results affirm Kanter's Structural Empowerment Theory, which posits that employees are more effective when they have access to opportunities, information, support, resources, and power within the organization. The findings imply that maintaining professional development initiatives, effective communication systems, supportive leadership practices, adequate resource allocation, participatory management, and positive interprofessional relationships can further strengthen nurse satisfaction, retention, engagement, and ultimately improve patient care outcomes (Wei et al., 2021; Boamah et al., 2022).

Table 2 Level of Work Engagement Among Nurses

Dimensions	Mean score	SD	Interpretation
Vigor			
1. I feel energetic at work	4.17	1.21	Very often
2. I feel strong and vigorous while working	4.12	1.26	Very often
3. I am resilient when facing work difficulties	4.56	1.18	Very often
Factor mean	4.28	1.10	Very High
Dedication			
4. I am enthusiastic about my job	4.47	1.22	Very often
5. My work inspires me	4.36	1.24	Very often
6. I am proud of the work that I do	4.98	1.08	Very often
Factor mean	4.60	1.05	Very High
Absorption			
7. I am immersed in my work	4.44	1.16	Very often
8. Time flies when I am working	4.63	1.14	Very often
9. I get carried away when I am working	3.63	1.38	Often
Factor Mean	4.23	1.12	Very High
Grand mean	4.37	1.09	Very High Work Engagement

Note: *n*-205.

Legend: A score of 0.00 to 1.00 indicates a very low level of work engagement (never), 1.01 to 2.00 indicates a low level of work engagement (almost never), 2.01 to 3.00 indicates a moderate level of work engagement (rarely), 3.01 to 4.00 indicates a high level of work engagement (sometimes), and 4.01 to 6.00 indicates a very high level of work engagement (very often to always).

The findings revealed that nurses demonstrated a very high level of work engagement, indicating that they remain emotionally, mentally, and physically invested in their work despite the demands of the profession. This suggests that nurses are highly committed to patient care, motivated to perform their responsibilities, and willing to go beyond basic job expectations. Among the dimensions, vigor was rated very highly, indicating that nurses generally perceived themselves as energetic, resilient, and capable of maintaining their performance even during challenging clinical situations. Dedication was likewise rated very highly, reflecting strong enthusiasm, pride, and a sense of purpose in the nursing profession. These findings suggest that nurses derive meaning from their work and remain committed to providing quality care despite workplace challenges. Previous studies similarly reported that resilience, psychological energy, professional purpose, and meaningful work contribute significantly to nurse engagement and performance (Pérez-Fuentes et al., 2021; Molino et al., 2020; García-Sierra et al., 2021).

The absorption dimension also obtained a very high rating, indicating that nurses tend to be highly focused and deeply involved in their work activities. This level of concentration reflects strong professional commitment and dedication to patient care; however, prolonged immersion in work without adequate rest may increase the risk of fatigue and burnout. The findings support previous evidence showing that highly engaged nurses are often highly concentrated in their work but may require appropriate work-life balance and recovery opportunities to sustain engagement over time (Wan et al., 2022). Overall, the results suggest that nursing remains a professionally fulfilling occupation characterized by high levels of engagement, commitment, and involvement. The findings support the Job Demands–Resources Theory, which proposes that supportive workplace resources enhance employee engagement despite workplace demands. These results highlight the importance of maintaining supportive work environments, recognition programs, wellness initiatives, leadership support, and career development opportunities to sustain high levels of nurse engagement and quality patient care (García-Sierra et al., 2021).

Table 3 Level of Transformational Leadership of Nurse Managers as Perceived by Nurses

Dimensions	Mean score	SD	Interpretation
Idealized Influence			
1. Instills pride in me for being associated with him/her	3.09	0.74	Fairly Often
2. Goes beyond self-interest for the good of the group	2.95	0.79	Fairly Often
3. Acts in ways that build my respect	3.00	0.76	Fairly Often
4. Displays a sense of power and confidence	3.05	0.78	Fairly Often
Factor mean	3.02	0.70	High
Access to Information			
5. Talks optimistically about the future	2.97	0.81	Fairly Often
6. Talks enthusiastically about what needs to be accomplished	3.00	0.77	Fairly Often
7. Articulates a compelling vision of the future	3.03	0.79	Fairly Often
8. Expresses confidence that goals will be achieved	3.01	0.76	Fairly Often
Factor Mean	3.00	0.72	High
Intellectual Stimulation			
9. Seeks differing perspectives when solving problems	2.98	0.75	Fairly Often
10. Suggests new ways of looking at how to complete assignments	2.91	0.80	Fairly Often
11. Encourages me to think independently	2.95	0.77	Fairly Often
12. Re-examines critical assumptions to question appropriateness	2.96	0.78	Fairly Often
Factor Mean	2.95	0.73	High
Individualized Consideration			
13. Spends time teaching and coaching	2.97	0.79	Fairly Often
14. Treats me as an individual rather than just a member of the group	2.96	0.78	Fairly Often
15. Considers my individual needs, abilities, and aspirations	2.94	0.80	Fairly Often
16. Helps me develop my strengths	2.93	0.81	Fairly Often
Factor Mean	2.95	0.75	High
Grand mean	2.98	0.73	High Transformational Leadership

Note: *n*-205.

Legend: A score of 0.00 to 0.80 indicates a very low level of transformational leadership (not at all), 0.81 to 1.60 indicates a low level of transformational leadership (once in a while), 1.61 to 2.40 indicates a moderate level of transformational leadership (sometimes), 2.41 to 3.20 indicates a high level of transformational leadership (fairly often), and 3.21 to 4.00 indicates a very high level of transformational leadership (frequently, if not always).

The findings in Table 3 indicate that nurses perceived their nurse managers as demonstrating high levels of transformational leadership, suggesting that leaders effectively guide, motivate, influence, and support staff within the workplace. Among the dimensions, idealized influence received a high rating, indicating that nurse managers are viewed as trusted role models who demonstrate professionalism, integrity, fairness, and accountability. Inspirational motivation was likewise rated highly, reflecting nurse managers' ability to encourage staff through positive communication, optimism, recognition, and shared organizational goals. These leadership behaviors contribute to stronger nurse morale, professional commitment, engagement, and workplace satisfaction. Previous studies similarly reported that transformational leadership promotes trust, commitment, engagement, and positive workplace outcomes among nurses (Specchia et al., 2021; Alqatawenh, 2022; Boamah et al., 2022).

Intellectual stimulation and individualized consideration also obtained high ratings, indicating that nurse

managers encourage critical thinking, innovation, participation in decision-making, and professional growth while demonstrating genuine concern for the individual needs and well-being of nurses. These findings suggest that transformational leaders create supportive environments that foster confidence, collaboration, empowerment, and professional development among nursing staff. Consistent with previous research, transformational leadership has been associated with innovation, collaborative problem-solving, emotional well-being, organizational trust, and reduced turnover intentions among nurses (Asif et al., 2023; Cummings et al., 2021). Overall, the findings support Transformational Leadership Theory, which emphasizes that leaders influence followers through inspiration, motivation, mentoring, and individualized support. The results highlight the importance of sustaining leadership development initiatives that strengthen communication, emotional intelligence, mentoring, and supportive leadership practices to promote nurse engagement, teamwork, retention, and quality patient care outcomes.

Table 4 Relationship between Conditions for Work Effectiveness and Work Engagement

Variables	r value	p value	Decision	Interpretation
Conditions for Work Effectiveness vs Work Engagement	0.64	.000	Reject Ho	Significant

Legend: Significant if p value is < .05. Dependent Variable: Work Engagement. Pearson r interpretation: A value greater than .5 is strong (positive), between .3 and .5 is moderate (positive), between 0 and .3 is weak (positive), 0 is none, between 0 and −.3 is weak (negative), between −.3 and −.5 is moderate (negative), and less than −.5 is strong (negative).

Table 4 findings revealed a strong positive relationship between conditions for work effectiveness and work engagement among nurses, indicating that nurses who perceived greater access to opportunities, information, support, resources, and formal and informal power were more likely to demonstrate higher levels of vigor, dedication, and absorption in their work. This suggests that work engagement is influenced not only by personal motivation but also by the quality of the workplace environment and the support provided by the organization. Nurses who feel valued, empowered, and supported are more likely to remain emotionally invested in their work, actively participate in patient care, and demonstrate professional commitment. These findings support the Job Demands–Resources Theory, which proposes that organizational resources enhance employee engagement by helping individuals manage job demands while promoting professional fulfillment. Similar findings have shown that positive work environments and empowering workplace conditions contribute to higher levels of nurse engagement, commitment, and psychological well-being (Orgambidez-Ramos & de Almeida, 2020; Wei et al., 2021).

The significant relationship further highlights the importance of structural empowerment in sustaining nurse engagement, particularly during challenging clinical situations. Nurses who receive adequate support, recognition, professional development opportunities, constructive feedback, and participation in decision-making are more likely to remain motivated, resilient, and committed to their responsibilities. Supportive work environments also contribute to improved teamwork, patient satisfaction, quality of care, and reduced turnover intentions, whereas poor workplace conditions may lead to emotional exhaustion, disengagement, burnout, and decreased organizational commitment. These findings emphasize that maintaining nurse engagement requires continuous investment in supportive work systems, effective communication, sufficient staffing, professional development, emotional support, and participative leadership. Consistent with previous research, organizational support and empowering leadership remain critical factors in sustaining nurse engagement, performance, and retention in healthcare institutions (Jankelová & Joniaková, 2021; Wei et al., 2021).

Table 5 Mediation of Transformational Leadership on the Relationship between Conditions for Work Effectiveness and Work Engagement.

Effect	Label	Estimate	SE	Z	p	% Mediation
Indirect	CWE × Transformational Leadership	0.0832	0.0187	4.45	.001	13.27
Direct	Work Engagement	0.5435	0.0412	13.19	<.001	86.73
Total	Quality of Life + CWE + Work Engagement + Mediation Path	0.6267	0.0435	14.40	<.001	100.00

In Table 5 finding shows that the mediation analysis revealed that transformational leadership partially mediated the relationship between conditions for work effectiveness and work engagement among nurses. Both the direct and indirect effects were significant, indicating that supportive workplace conditions and transformational leadership jointly contribute to higher levels of nurse engagement. The findings suggest that access to opportunities, support, resources, information, and workplace power directly enhances nurses vigor, dedication, and absorption, while transformational nurse managers further strengthen engagement through motivation, guidance, recognition, teamwork, and supportive communication. However, the results also indicate that transformational leadership alone is insufficient to sustain engagement when workplace conditions are unfavorable, highlighting that supportive organizational structures remain the primary foundation of nurse engagement. These findings support the Job Demands–Resources Theory and Transformational Leadership Theory, emphasizing that engagement is strengthened when adequate workplace resources and supportive leadership coexist (Ystaas et al., 2023; Specchia et al., 2021).

The results further demonstrate that transformational leadership functions as an enabling mechanism that enhances the positive effects of supportive work environments on nurse engagement. Nurses are more likely to remain committed, resilient, and motivated when organizational support is combined with leadership practices that promote professional growth, participation in decision-making, mentoring, recognition, and emotional support. The findings imply that nursing management should simultaneously invest in supportive workplace systems and transformational leadership development rather than focusing on either factor alone. Maintaining adequate staffing, effective communication, resource availability, manageable workloads, and professional development opportunities, together with transformational leadership behaviors, may contribute to higher nurse engagement, retention, teamwork, resilience, and improved quality of patient care (Ystaas et al., 2023; Specchia et al., 2021).

CONCLUSION AND RECOMMENDATIONS

Conclusion. The study found that transformational leadership was a key mediator between job effectiveness and work engagement of nurses. The opportunities, information, support, resources and power favorable working conditions were found to impact nurses workplace engagement. However, it was shown that the effect of workplace environment is stronger in the presence of transformational leadership of nurse managers. Transformational leadership is thus a key mechanism through which supportive working environments transfer into higher levels of engagement. It is also established that when a positive work environment is developed, nurses feel valued, empowered, and motivated. It was observed that the combination of workplace circumstances and leadership approach encouraged dedication and participation of nurses. In addition, the mix of working circumstances and leadership process promotes commitment.

Recommendations. The findings support the implementation of a Work Effectiveness and Engagement Enhancement Plan focused on strengthening supportive workplace environments, transformational leadership practices, and sustained nurse engagement. Nurse managers should continue promoting access to opportunities, information, support, resources, collaborative relationships, mentoring, supportive supervision, employee recognition, participative decision-making, stress management activities, and professional development programs to maintain nurses motivation, resilience, and commitment. The findings may also serve as a valuable resource in nursing education, particularly in leadership, management, organizational behavior, professional practice, structural empowerment, and work engagement. Healthcare organizations are encouraged to strengthen policies related to staff empowerment, workplace wellness, supportive leadership, professional development, equitable workload distribution, open communication, and staff recognition to sustain organizational commitment and engagement. Furthermore, the study should be disseminated through publication and conference presentations, while future research should explore additional organizational and psychosocial factors affecting work engagement, examine other mediating and moderating variables, conduct qualitative or mixed-method investigations, develop structural or mediation models, and validate the proposed mediation model across larger and more diverse nursing populations to strengthen its applicability and generalizability.

WORK EFFECTIVENESS AND ENGAGEMENT ENHANCEMENT PLAN

Rationale

Work engagement reflects nurses passion, commitment, and dedication to their professional responsibilities and is closely associated with conditions for work effectiveness and transformational leadership. In nursing practice, engaged nurses demonstrate higher levels of productivity, accountability, and commitment to quality patient care, while transformational nurse managers foster confidence, teamwork, motivation, and professional growth through supportive and empowering leadership behaviors. The findings of the study revealed high conditions for work effectiveness, very high work engagement, and high transformational leadership among nurse managers. A significant positive relationship was found between conditions for work effectiveness and work engagement, while transformational leadership was shown to partially mediate this relationship, indicating that leadership behaviors strengthen the positive influence of supportive workplace conditions on nurse engagement. Hence, the Work Effectiveness and Engagement Enhancement Plan is proposed to sustain these favorable conditions and further strengthen organizational support systems, transformational leadership practices, and nurse engagement among healthcare personnel.

General Objective

The main purpose of the Work Effectiveness and Engagement Enhancement Plan aims to sustain and strengthen conditions for work effectiveness, transformational leadership practices, and work engagement among nurses through supportive organizational systems, empowering leadership behaviors, professional development activities, and employee-centered nursing management strategies.

Areas of Concern	Objective	Key Strategies/Activities	Persons Responsible	Success Indicators
Conditions for Work Effectiveness	Sustain supportive workplace conditions and organizational empowerment.	Conduct empowerment seminars; strengthen communication systems; hold quarterly consultation meetings; improve resource availability; strengthen shared governance and recognition programs.	Chief Nurse, Nurse Managers, HR Department, Nursing Education Coordinator	Sustained high work effectiveness ratings; improved workplace satisfaction and participation.
Work Engagement	Sustain nurses vigor, dedication, and absorption.	Implement wellness and resilience programs; establish mentoring and peer support systems; conduct debriefing sessions; provide recognition and employee wellness activities; strengthen staffing support.	Nurse Supervisors, HR Department, Wellness Committee	Sustained very high engagement ratings; improved morale; reduced burnout complaints.
Transformational Leadership	Strengthen motivating, empowering, and supportive leadership behaviors.	Conduct transformational leadership training; establish leadership mentoring programs; provide emotional intelligence and communication workshops; strengthen leadership evaluation and feedback mechanisms.	Chief Nurse, Nurse Managers, HR Department, Nursing Education Coordinator	Sustained high transformational leadership ratings; improved leadership support and communication.

Areas of Concern	Objective	Key Strategies/Activities	Persons Responsible	Success Indicators
Work Effectiveness–Engagement Relationship	Reinforce organizational practices that strengthen engagement through supportive workplace systems.	Improve staffing, communication, scheduling, and resource support; strengthen employee consultation and participative leadership; conduct engagement assessments and recognition activities.	Hospital Administrators, Chief Nurse, Nurse Managers, HR Department	Improved engagement, morale, and workplace satisfaction.
Transformational Leadership as a Mediator	Strengthen leadership as a mechanism that enhances the positive effects of supportive work conditions on engagement.	Implement leadership development and coaching programs; strengthen mentoring and succession planning; increase leadership visibility; conduct regular leadership feedback and team-building activities.	Chief Nurse, Nurse Managers, HR Department, Nursing Education Coordinator	Improved leadership effectiveness; stronger nurse-manager relationships; enhanced motivation, resilience, and engagement.

Time Frame: Fourth Quarter of 2026 onwards

REFERENCES

1. AbuAlRub, R. F., El-Jardali, F., Jamal, D., & Al-Rub, N. A. (2022). Exploring the relationship between structural empowerment, job satisfaction, and turnover intention among nurses. *Journal of Nursing Management*, 30(1), 160–169. <https://doi.org/10.1111/jonm.13495>
2. Al Sabei, S. D., Labrague, L. J., Miner Ross, A., Karkada, S., Albashayreh, A., Al Masroori, F., & Al Hashmi, N. (2021). Nursing work environment, turnover intention, job burnout, and quality of care: The moderating role of job satisfaction. *Journal of Nursing Scholarship*, 53(1), 95–104. <https://doi.org/10.1111/jnu.12619>
3. Alqatawenh, A. S. (2022). Transformational leadership style and its relationship with nurses organizational commitment. *International Journal of Nursing Sciences*, 9(2), 210–217. <https://doi.org/10.1016/j.ijnss.2022.03.004>
4. Alruwaili, A. N. (2025). Transformational nurse leaders and nurse well-being: Examining mediating influences of organizational justice and quality of work life. *Journal of Nursing Management*.
5. Alshammari, F., et al. (2024). Perceived structural empowerment, resilience, and intent to stay among midwives and registered nurses in Saudi Arabia: A convergent parallel mixed methods study. *BMC Nursing*.
6. Asif, M., Jameel, A., Hussain, A., Hwang, J., & Sahito, N. (2023). Linking transformational leadership with nurse innovation and performance: The mediating role of psychological empowerment. *Healthcare*, 11(4), 512. <https://doi.org/10.3390/healthcare11040512>
7. Boamah, S. A., Hamadi, H. Y., Havaei, F., Smith, H., & Webb, F. (2022). Striking a balance between work and play: The effects of work-life balance, job satisfaction, and nurse empowerment on patient safety culture. *Journal of Nursing Management*, 30(1), 29–36. <https://doi.org/10.1111/jonm.13472>
8. Boamah, S. A., Spence Laschinger, H., Wong, C., & Clarke, S. (2022). Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nursing Outlook*, 70(1), 44–52. <https://doi.org/10.1016/j.outlook.2021.08.001>
9. Çelik, Ş. Ş., Sarıköse, S., & Çelik, Y. (2024). Structural and psychological empowerment and burnout among nurses: A systematic review and meta-analysis. *International Nursing Review*, 71(1), 189–201. <https://doi.org/10.1111/inr.12878>
10. Cummings, G. G., Tate, K., Lee, S., Wong, C. A., Paananen, T., Micaroni, S. P. M., & Chatterjee, G. E. (2021). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. *International Journal of Nursing Studies*, 117, 103887.

<https://doi.org/10.1016/j.ijnurstu.2021.103887>

11. Examining the relationship between hospital nurses structural empowerment, missed nursing care and quality of care: A cross-sectional study. (2025). *Journal of Nursing Management*.
12. García-Sierra, R., & Martínez-Zaragoza, F. (2023). Leadership to improve nurse engagement and empowerment: Evidences to improve the training of nurses. *BMJ Leader*, 7(2), 96–101. <https://doi.org/10.1136/leader-2021-000537>
13. García-Sierra, R., Fernández-Castro, J., & Martínez-Zaragoza, F. (2021). Work engagement in nursing: An integrative review of the literature. *Journal of Nursing Management*, 29(6), 1016–1031. <https://doi.org/10.1111/jonm.13239>
14. Han, S. (2023). The relationship between job crafting, work engagement, and well-being among nurses: A cross-sectional study. *BMC Nursing*, 22, Article 312. <https://doi.org/10.1186/s12912-023-01573-6>
15. Hjalmarsson, K., Thungjaroenkul, P., & Nantsupawat, A. (2022). Structural empowerment and moral distress of nurses in private hospitals. *Nursing Journal CMU*.
16. Huang, Q., Wang, L., Huang, H., et al. (2025). Transformational leadership, psychological empowerment, work engagement and intensive care nurses job performance: A cross-sectional study using structural equation modeling. *BMC Nursing*, 24, 1025. <https://doi.org/10.1186/s12912-025-03685-7>
17. Huang, Q., Wang, L., Huang, H., Tang, H., Liu, J., & Chen, C. (2025). Transformational leadership, psychological empowerment, work engagement and intensive care nurses job performance: A cross-sectional study using structural equation modeling. *BMC Nursing*, 24, Article 1025. <https://doi.org/10.1186/s12912-025-03685-7>
18. Ibrahim, I. A., et al. (2024). Transformational leadership, psychological empowerment, and organizational citizenship behaviors among nursing workforce: A single mediation analysis. *Journal of Nursing Management*.
19. Impact of leadership style and structural empowerment on nursing group power in ICU settings: A cross-sectional study. (2024). *Journal of Nursing Management*.
20. International Council of Nurses. (2022). *Nursing leadership and workforce sustainability report*. International Council of Nurses.
21. Kubo, M., Yamauchi, K., & Takahashi, Y. (2024). Factors associated with work engagement among radiology nurses: A cross-sectional study in Japan. *PeerJ*, 12, e18426. <https://doi.org/10.7717/peerj.18426>
22. Labrague, L. J., & De Los Santos, J. A. A. (2021). Resilience as a mediator between compassion fatigue, nurses work outcomes, and quality of care during the COVID-19 pandemic. *Applied Nursing Research*, 61, 151476. <https://doi.org/10.1016/j.apnr.2021.151476>
23. Maung, M. T., Aye, T. T., & Hlaing, M. T. (2025). Factors influencing work engagement among nurses in general hospitals: A predictive correlational study. *Journal of Nursing Management*.
24. Molino, M., Cortese, C. G., Ghislieri, C., & Colombo, L. (2020). The promotion of technology acceptance and work engagement in industry 4.0: From personal resources to information and training. *International Journal of Environmental Research and Public Health*, 17(7), 2438. <https://doi.org/10.3390/ijerph17072438>
25. Mudallal, R. H., Othman, W. M., Al Hassan, N. F., & Hamaideh, S. H. (2021). Nurses burnout: The influence of leader empowering behaviors, work conditions, and demographic traits. *Inquiry*, 58, 1–10. <https://doi.org/10.1177/00469580211005181>
26. Nurmeksela, A., Schavoronkoff, K., & Jokiniemi, K. (2025). The impact of nurse managers' transformational leadership on nurses work engagement: A cross-sectional study. *Journal of Nursing Management*. <https://doi.org/10.1155/jonm/9980485>
27. Pérez-Fuentes, M. C., Molero Jurado, M. M., Gázquez Linares, J. J., & Simón Márquez, M. M. (2020). Transformational leadership and work engagement: Exploring the mediating role of structural empowerment. *European Management Journal*, 38(1), 169–178. <https://doi.org/10.1016/j.emj.2019.06.007>
28. Pérez-Fuentes, M. D. C., Molero Jurado, M. D. M., Oropesa Ruiz, N. F., Simón Márquez, M. D. M., & Gázquez Linares, J. J. (2021). The mediating role of resilience in the relationship between work engagement and mental health among nurses. *Journal of Clinical Medicine*, 10(12), 2548.

- <https://doi.org/10.3390/jcm10122548>
29. Rababah, J. A., Al-Hammouri, M. M., & Ta'an, W. F. (2021). A study of the relationship between nurses experience, structural empowerment, and attitudes toward computer use. *International Journal of Nursing Sciences*, 8(4), 439–443. <https://doi.org/10.1016/j.ijnss.2021.09.007>
 30. Sariköse, S., & Şenol Çelik, S. (2024). Structural and psychological empowerment among newly graduated nurses and related factors: A mixed methods study. *Journal of Advanced Nursing*, 80(7), 2917–2928. <https://doi.org/10.1111/jan.16022>
 31. Specchia, M. L., Cozzolino, M. R., Carini, E., Di Pilla, A., Galletti, C., Ricciardi, W., & Damiani, G. (2021). Leadership styles and nurses job satisfaction. Results of a systematic review. *International Journal of Environmental Research and Public Health*, 18(4), 1552. <https://doi.org/10.3390/ijerph18041552>
 32. The relationship between nurses work effectiveness and work engagement. (2021). *Journal of Client-Centered Nursing Care*.
 33. The relationship between transformational leadership and work engagement among intensive care unit nurses: The mediating function of organizational climate. (2025). *Journal of Nursing Management*.
 34. Transformational leadership practices of nurse managers and their influence on nurses job satisfaction and organizational commitment. (2022). *Nurse Leader*, 20(4), 420–426. <https://doi.org/10.1016/j.mnl.2022.02.006>
 35. Wan, Q., Li, Z., Zhou, W., & Shang, S. (2022). Effects of work environment and job characteristics on the turnover intention of experienced nurses: The mediating role of work engagement. *Journal of Nursing Management*, 30(1), 121–129. <https://doi.org/10.1111/jonm.13423>
 36. Wei, H., Roberts, P., Strickler, J., & Corbett, R. W. (2019). Nurse leaders' strategies to foster nurse resilience. *Journal of Nursing Management*, 27(4), 681–687. <https://doi.org/10.1111/jonm.12736>
 37. Wei, H., Sewell, K. A., Woody, G., & Rose, M. A. (2021). The state of the science of nurse work environments in the United States: A systematic review. *International Journal of Nursing Sciences*, 8(3), 287–300. <https://doi.org/10.1016/j.ijnss.2021.05.010>
 38. Work engagement and compassion fatigue among nursing professionals during the COVID-19 pandemic. (2025). *Healthcare*, 13(8), 124. <https://doi.org/10.3390/healthcare13080124>
 39. World Health Organization. (2023). *Global strategic directions for nursing and midwifery 2021–2025*. World Health Organization.
 40. Youssef, F. H. M., Abdelghany, A. M., & Mahmoud, H. G. (2025). The relationship between structural empowerment and patient safety culture among staff nurses. *Mansoura Nursing Journal*. <https://doi.org/10.21608/mnj.2024.295912.1415>
 41. Zhang, Y., Qiu, R., Wang, Y., & Ye, Z. (2025). Navigating the future: Unveiling new facets of nurse work engagement. *BMC Nursing*, 24(1), Article 80. <https://doi.org/10.1186/s12912-024-02517-4>