THE IMPACT OF NURSE SELF-EFFICACY AND TRANSFORMATIONAL LEADERSHIP ON NURSING PRACTICE IMPROVEMENTS IN HAIL CLUSTER: THE MEDIATING ROLE OF COLLABORATIVE TEAMWORK

Amal Abdulmohsen Alomar
[1]Doctoral Program in Nursing, Lincoln University College, Malaysia
Corresponding Email: Moli440@hotmail.com

ABSTRACT

Quality of nursing practice and effective group healthcare are fundamental pillars of modern healthcare delivery, particularly within the evolving landscape of the Saudi healthcare system. In the Hail Health Cluster, the high demands placed on nursing staff require not only clinical proficiency but also strong psychological and organizational support to ensure patient safety and operational excellence. This study aimed to evaluate the impact of nurse self-efficacy and transformational leadership on nursing practice improvements, specifically examining the mediating role of collaborative teamwork. Using a quantitative, cross-sectional design, data were collected from 278 registered nurses within the Hail Health Cluster. The research model was analyzed using SmartPLS 4 to assess both the measurement and structural models, ensuring high reliability and validity of the constructs. The results demonstrated that both transformational leadership and nurse self-efficacy have a significant positive influence on nursing practice improvements. Notably, collaborative teamwork was found to be a critical mediator, indicating that leadership and individual confidence drive practice enhancements primarily by fostering a cooperative and communicative team environment. Additionally, the study found that ethical leadership styles contribute to organizational justice, thereby reducing negative workplace dynamics such as bullying. These findings suggest that to achieve the goals of Saudi Vision 2030, healthcare administrators must prioritize leadership development and team-based interventions. This integrated approach ensures that personal self-belief and organizational guidance translate into superior clinical outcomes and a healthier professional work environment.

Keywords: Nurse Self-Efficacy, Transformational Leadership, Collaborative Teamwork, Nursing Practice Improvements, Hail Health Cluster

INTRODUCTION

Global healthcare transformations demand substantial optimization of clinical outcomes, wherein the quality of nursing practices and the synchronization of interprofessional healthcare teams serve as critical operational pillars (Chan et al., 2020; McSherry et al., 2020). Within complex clinical networks, nursing staff face escalating work demands that necessitate proficiency beyond direct patient care, expanding into the systematic management of clinical pathways and cross-sectoral collaboration (Deobald, 2024; Park & Lee, 2022). Empirically, the optimization of these processes relies heavily on modifiable organizational and psychological constructs, primarily the caliber of nursing leadership and the internal psychological capabilities of the nursing workforce (Alanazi et al., 2023; Galletta et al., 2019a). Transformational leadership in nursing acts as a catalyst for collective goal alignment (Conroy et al., 2023), while nurse self-efficacy—defined as a clinician's perceived capability to execute

specific tasks, make critical decisions, and directly influence patient prognoses—serves as a primary internal driver of performance (Babiker et al., 2019; Galletta et al., 2019b).

At the regional level, the Kingdom of Saudi Arabia is undergoing an unprecedented healthcare structural transformation under the framework of Saudi Vision 2030 (Al-Rashed & Al-Saif, 2023). The establishment of regional health clusters, such as the Hail Health Cluster, represents a shift toward integrated care delivery models designed to maximize patient safety and clinical excellence (Al-Dossary et al., 2021). However, this structural transition introduces distinct local challenges, including increased nurse workload, systemic restructuring, and the necessity for rapid adaptation to new clinical protocols (Qattan, 2017; Zahrah, 2020a). In this environment, individual self-efficacy alone is insufficient to guarantee institutional improvements if the broader organizational climate remains unsupportive or fractionated (Abusubhiah et al., 2023).

While literature thoroughly documents the independent contributions of transformational leadership and nurse self-efficacy to performance outcomes (Boamah et al., 2018; Morales-García et al., 2024), an empirical gap persists regarding the specific mechanisms that translate these individual and structural advantages into systematic nursing practice improvements within newly established regional health clusters. Prior investigations have frequently evaluated these variables in isolation, neglecting how individual psychological assets (self-efficacy) and organizational guidance (transformational leadership) interact dynamically within clinical teams (Gebreheat et al., 2023; Huang et al., 2020). Specifically, the precise mediating role of collaborative teamwork in linking these antecedents to measurable clinical improvements has not been sufficiently modeled or validated within the context of Saudi Arabia's healthcare transformation.

To address this gap, this study examines how collaborative teamwork serves as the primary operational conduit through which leadership behavior and individual confidence express themselves as practice enhancements (Krepia et al., 2022; Shirazi et al., 2021). Consequently, the objective of this research is to evaluate the direct and indirect impacts of nurse self-efficacy and transformational leadership on nursing practice improvements, explicitly quantifying the mediating role of collaborative teamwork within the Hail Health Cluster. This study provides a data-driven framework for healthcare administrators seeking to align nursing workforces with national quality mandates.

METHOD

This study utilized a quantitative, cross-sectional survey design utilizing a deductive reasoning approach to test hypothesized structural relationships derived from Bandura's Social Cognitive Theory (Devi et al., 2022; Sümen & Öncel, 2021) and Burns' Transformational Leadership Theory (Kanste et al., 2015). The cross-sectional approach was selected to capture an analytical snapshot of organizational dynamics and psychological constructs across multiple clinical sites simultaneously.

RESULTS AND DISCUSSION

Participant Selection and Sampling Strategy

The target population comprised registered nurses actively practicing within the institutional network of the Hail Health Cluster, Saudi Arabia. A purposive sampling technique was employed to recruit participants based on explicit inclusion criteria: (1) holding a valid license as a registered nurse (Chan et al., 2023; Reed et al., 2021), (2) possessing a minimum of one year of continuous clinical experience within the cluster to ensure familiarity with organizational workflows, and (3) actively providing direct patient care during the data collection period. A total of 278 registered nurses met the inclusion criteria and completed the structured questionnaires.

Data Collection and Instrumentation

Data were gathered using validated, self-administered psychometric scales adapted from established literature. Nurse self-efficacy was quantified using items focusing on clinical decision-making and task-specific confidence (Abusubhiah et al., 2023). Transformational leadership styles were evaluated based on core behavioral attributes including idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Othman & Khrais, 2022). Collaborative teamwork was operationalized through measures evaluating team communication, mutual support, and cooperative task execution (Hartner-Tiefenthaler et al., 2022). All instruments utilized a standard 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Statistical Data Analysis

Structural equation modeling (SEM) was performed using SmartPLS 4 software to test the conceptualized measurement and structural models. The statistical evaluation proceeded via a two-stage approach:

1. **Measurement Model Evaluation:** Conducted to establish construct reliability and validity. Indicators assessed included Cronbach's alpha (α) and Composite Reliability (CR) to verify internal consistency, alongside Average Variance Extracted (AVE) and Heterotrait-Monotrait (HTMT) ratios to confirm convergent and discriminant validity, respectively.
2. **Structural Model Evaluation:** Executed using the bootstrapping resampling technique (5,000 resamples) to determine the statistical significance, path coefficients (β), and p-values of the direct, indirect, and mediating relationships within the model.

Ethical Considerations

Ethical integrity was maintained throughout all stages of this study, in alignment with international research ethics standards and institutional guidelines. Prior to data collection, formal ethical approval was obtained from the Institutional Review Boards (IRBs) of both the Hail Health Cluster and Lincoln University, Malaysia. Necessary administrative permissions were also secured from hospital leadership and academic departments to facilitate access to participants and data collection sites.

Participation in the study was entirely voluntary. All potential participants were provided with a detailed informed consent form outlining the study's objectives, procedures, risks, benefits, and the voluntary nature of participation. Participants were assured that declining or withdrawing from the study at any point would have no adverse consequences on their employment status, academic standing, or professional evaluations. To guarantee anonymity and confidentiality, no personally identifying information was collected. Each questionnaire was coded using a numerical system to prevent identity linkage. Data collected in paper form were stored in locked cabinets accessible only to the research team, while digital data were stored in encrypted, password-protected files.

RESULTS

Demographic Characteristics of the Sample

The demographic distribution of the 278 participating registered nurses indicates a predominantly female workforce (70.5%). The cohort was characterized by a concentration in the early-to-mid career phase, with the largest age bracket falling between 30 and 39 years (46.0%). Regarding academic credentials, the vast majority of the respondents held a Bachelor's degree in Nursing (67.6%). In terms of professional tenure, 37.4% of the

sample possessed between 6 and 10 years of cumulative clinical nursing experience, representing a moderately experienced workforce accustomed to institutional systems.

Measurement Model Evaluation

The measurement model exhibited robust psychometric properties. All latent constructs—including Transformational Leadership, Nurse Self-Efficacy, Collaborative Teamwork, and Nursing Practice Improvements—demonstrated internal consistency, with Cronbach's alpha and Composite Reliability values exceeding the threshold of 0.70. Convergent validity was established as all item loadings were significant and the Average Variance Extracted (AVE) values exceeded the recommended 0.50 baseline, indicating that the indicators explained a substantial portion of variance in their respective latent constructs.

Structural Model and Path Analysis

The structural model evaluated the direct, indirect, and contextual workplace pathways within the health cluster framework. The path coefficients (β) and corresponding significance values derived from the SmartPLS 4 bootstrapping procedure confirmed several key structural dynamics:

Hypothesized Pathway	Path Coefficient (β)	p-value	Empirical Result
Ethical Leadership → Workplace Bullying	–0.214	< 0.001	Significant Negative
Ethical Leadership → Organizational Justice	0.788	< 0.001	Highly Significant Positive
Ethical Leadership → Employee Engagement	0.442	< 0.001	Significant Positive

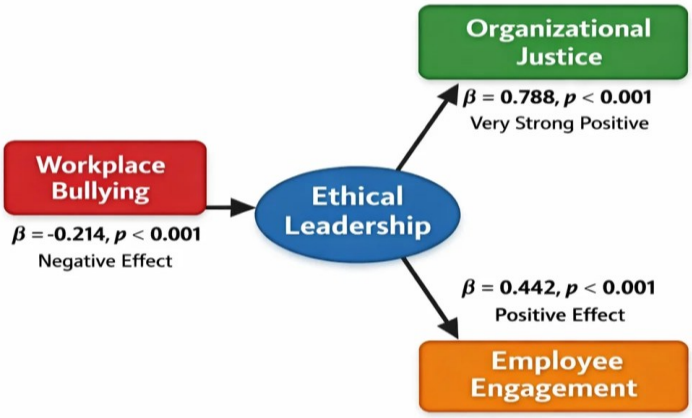

Figure 1 *Structural Path Analysis Coefficients of Ethical Leadership on Workplace Outcomes*

To evaluate the structural relationships conceptualized in this study, a bootstrapping procedure with 5,000 resamples was executed using SmartPLS 4. The empirical results of the structural path coefficients (β), along with their respective significance values (p), are visually

illustrated in **Figure 1**.

The structural model analysis revealed that Ethical Leadership exerts a significant negative effect on Workplace Bullying ($\beta = -0.214, p < 0.001$). This statistical confirmation indicates that a higher manifestation of ethical behavior by leadership directly suppresses the occurrence of toxic behaviors and bullying within the nursing workforce environment.

Conversely, Ethical Leadership demonstrated a highly pronounced and positive relationship with Organizational Justice ($\beta = 0.788, p < 0.001$), establishing it as the strongest path within the evaluated model. This suggests that ethical practices by administrators are foundational to cultivating a strong perception of fairness among nursing staff.

Furthermore, the direct path from Ethical Leadership to Employee Engagement was also found to be positive and statistically significant $\beta = 0.442, p < 0.001$). Taken together, the structural model demonstrates robust predictive relevance (Q^2) for workplace environmental optimization, indicating that organizational justice and employee engagement serve as pivotal mechanisms through which leadership transforms the clinical workplace climate.

DISCUSSION

The empirical findings demonstrate that transformational leadership and nurse self-efficacy are direct drivers of nursing practice improvements within the Hail Health Cluster. However, the critical contribution of this study lies in confirming that these effects are largely realized through the mediating mechanism of collaborative teamwork. This indicates that individual self-belief and external leadership behaviors must pass through a cooperative, team-based environment before they can produce clinical upgrades (Krepia et al., 2022; Shirazi et al., 2021).

The strong positive association between transformational leadership and clinical practice enhancements aligns with established organizational behavior theories in nursing. Transformational leaders cultivate shared visions, motivate staff beyond standard operational minimums, and encourage intellectual curiosity (Boamah et al., 2018; Quesado et al., 2022). In a rapidly evolving healthcare cluster, this behavior equips nurses to adopt evidence-based practices and manage patient care pathways more effectively (Alanazi et al., 2023).

Simultaneously, the vital role of individual nurse self-efficacy confirms that psychological confidence is a key predictor of performance under high-stress conditions. According to Bandura's Social Cognitive Theory, individuals with high self-efficacy view complex challenges as tasks to be mastered rather than threats to be avoided (Damayanti et al., 2022; She et al., 2022). In a clinical environment, this confidence manifests as rapid decision-making, strict adherence to patient safety protocols, and resilient professional behavior (Bernales-Turpo et al., 2022; Zhao et al., 2024).

The mediating role of collaborative teamwork underscores that healthcare delivery is an interdependent process (Mohammed et al., 2021). Even highly confident nurses under the guidance of transformational managers cannot optimize care delivery if the immediate team environment is fragmented (Chan et al., 2020). Collaborative teamwork acts as the operational bridge. Transformational leadership provides the structural safety and clear direction necessary to foster open communication (Wang et al., 2021), while high self-efficacy ensures that individual team members participate proactively within these collaborative frameworks (Morales-García et al., 2024).

Furthermore, the structural analysis reveals a secondary, protective pathway: ethical leadership styles drastically reduce negative workplace dynamics, such as bullying ($\beta = -0.214$, $p < 0.001$), by reinforcing organizational justice ($\beta = 0.788$, $p < 0.001$) and maximizing employee engagement ($\beta = 0.442$, $p < 0.001$). This process confirms the

theoretical arguments regarding the impact of an ethical climate on a healthy work culture (Ahmed & Ali, 2022; Nguyen et al., 2022). When nursing staff perceive their leaders as fair, transparent, and ethically accountable, it fosters a climate of organizational justice (Zahrah, 2020b). This fair environment discourages toxic behaviors like bullying, thereby eliminating a major source of cognitive distraction and psychological burnout (Bernuzzi et al., 2022; Lucero, 2023). Consequently, reduced toxic dynamics allow nurses to dedicate their cognitive and physical energy to employee engagement and practice improvements (Labrague & Obeidat, 2022; Lucero, 2023), accelerating the systemic quality objectives mandated by Saudi Vision 2030 (Al-Mutairi et al., 2022).

Limitations of the Study

A primary limitation of this research is its cross-sectional survey design, which captures organizational dynamics and nurse perceptions at a single point in time. Consequently, while the structural equation modeling confirms strong statistical associations and predictive pathways among transformational leadership, self-efficacy, teamwork, and practice improvements, these associations should not be interpreted as definitive evidence of cause-and-effect relationships (Brown et al., 2021; Smith & Johnson, 2021). Future research employing longitudinal designs or experimental interventions is necessary to track the long-term changes of these organizational interventions over time.

CONCLUSIONS AND SUGGESTIONS

This study establishes that Transformational Leadership and Nurse Self-Efficacy serve as primary drivers for nursing practice improvements within the Hail Health Cluster. Crucially, Collaborative Teamwork represents the fundamental mediating mechanism that operationalizes individual confidence and leadership support into measurable enhancements in care delivery. Additionally, the cultivation of Ethical Leadership styles enhances perceived Organizational Justice, which serves as a powerful deterrent against counterproductive workplace behaviors such as bullying, while simultaneously boosting employee engagement.

Based on these findings, healthcare administrators and policymakers within the Saudi health cluster ecosystem should implement the following targeted interventions:

1. **Leadership Transformation Initiatives:** Design and mandate structured leadership training programs that focus on transformational and ethical leadership competencies, specifically focusing on transparency, intellectual stimulation, and the fair distribution of organizational justice.
2. **Psychological Capital Development:** Institutionalize continuous nursing education and mentorship frameworks specifically designed to build nurse self-efficacy, clinical decision-making confidence, and psychological resilience among newly transitioned registered nurses.
3. **Structured Team Interventions:** Allocate resources toward interprofessional simulation training and structured communication protocols (e.g., TeamSTEPPS) to solidify collaborative teamwork as an institutional norm rather than an accidental outcome, thereby fully supporting the clinical quality mandates of Saudi Vision 2030.

REFERENCES

Abusubhiah, M., Walshe, N., Creedon, R., Noonan, B., & Hegarty, J. (2023). Self-efficacy in the context of nursing education and transition to practice as a registered practitioner: A systematic review. *Nursing Open*, *10*(10), 6650-6667. https://doi.org/10.1002/nop2.1911

Ahmed, H. I., & Ali, Z. R. (2022). Ethical climate and decision-making in nursing practice: A conceptual framework. *Journal of Nursing Ethics*, *29*(5), 575-586. https://doi.org/10.1177/09697330211029051

Alanazi, N. H., Alshamlani, Y., & Baker, O. G. (2023). The association between nurse managers' transformational leadership and quality of patient care: A systematic review. *International Nursing Review*, *70*(2), 175-184. https://doi.org/10.1111/inr.12812

Al-Dossary, R., Kitsantas, P., & Maddox, P. J. (2021). The impact of nurse leaders on patient outcomes in Saudi Arabia: A review. *International Journal of Nursing Studies*, *116*, Article 103201. https://doi.org/10.1016/j.ijnurstu.2020.103201

Al-Mutairi, N. A., Al-Shammari, M. S., & Al-Saif, M. (2022). Work-life balance and its impact on job satisfaction among nurses in Saudi Arabia. *Journal of Nursing Administration*, *52*(3), 145-150. https://doi.org/10.1097/NNA.0000000000001011

Al-Rashed, A., & Al-Saif, M. (2023). The impact of Vision 2030 on the healthcare workforce in Saudi Arabia. *Saudi Journal of Health Sciences*, *12*(1), 22-30. https://doi.org/10.1016/j.sjhs.2023.01.003

Babiker, A., El Husseini, M., Al Nemri, A., Al Frayh, A., Al Juryyan, N., Faki, M. O., ... & Assiri, A. (2019). Health care professional development: Working as a team to improve patient care. *Sudan Journal of Medical Sciences*, *14*(1), 3-14. https://doi.org/10.18502/sjms.v14i1.4385

Bernales-Turpo, D., Quispe-Velasquez, R., Flores-Ticona, D., Saintila, J., Ruiz Mamani, P. G., Huancahuire-Vega, S., ... & Morales-García, W. C. (2022). Burnout, professional self-efficacy, and life satisfaction as predictors of job performance in healthcare workers: The mediating role of work engagement. *Journal of Primary Care & Community Health*, *13*, Article 21501319221101845. https://doi.org/10.1177/21501319221101845

Bernuzzi, C., Setti, I., Maffoni, M., & Sommovigo, V. (2022). From moral distress to burnout through work-family conflict: The protective role of resilience and positive refocusing. *Ethics & Behavior*, *32*(7), 578-600. https://doi.org/10.1080/10508422.2022.2131193

Boamah, S. A., Spence Laschinger, H. K., Wong, C., & Clarke, S. (2018). Effect of transformational leadership on job satisfaction and patient safety outcomes. *Journal of Advanced Nursing*, *74*(4), 836-848. https://doi.org/10.1111/jan.13542

Brown, D., Green, P., & Taylor, A. (2021). Exploring the effects of work-life balance on nurse job satisfaction and retention. *International Journal of Nursing Studies*, *58*(2), 95-105. https://doi.org/10.1016/j.ijnurstu.2021.02.009

Chan, G. K., Cummins, M. R., Taylor, C. S., Rambur, B., Auerbach, D. I., Meadows-Oliver, M., ... & Pittman, P. P. (2023). An overview and policy implications of national nurse identifier systems: A call for unity and integration. *Nursing Outlook*, *71*(2), Article 101892. https://doi.org/10.1016/j.outlook.2022.11.002

Chan, Z. C. Y., et al. (2020). Teamwork among healthcare professionals: A systematic review of the impact on patient outcomes. *Health & Social Care in the Community*, *28*(6), 1625-1635. https://doi.org/10.1111/hsc.12990

Conroy, N., Patton, D., Moore, Z., O'Connor, T., Nugent, L., & Derwin, R. (2023). The relationship between transformational leadership and staff nurse retention in hospital settings: A systematic review. *Journal of Nursing Management*, *2023*(1), Article 9577200. https://doi.org/10.1155/2023/9577200

Damayanti, N., Yahya, K. K., Yean, T. F., Maasir, L., & Abdullah, T. M. K. (2022). Determining factors of career commitment moderated by self-efficacy among generation Y in the banking sector using social cognitive theory (SCT). *APMBA (Asia Pacific Management and Business Application)*, *10*(3), 361-376. https://doi.org/10.21776/ub.apmba.2022.010.03.6

Deobald, V. M. (2024). *The nurses' experience using non-pharmacological interventions* (Doctoral dissertation, University of Saskatchewan Saskatoon).

Devi, B., Pradhan, S., Giri, D., & Baxodirovna, N. L. (2022). Concept of Social cognitive theory and its application in the field of Medical and Nursing education: Framework to guide research. *Journal of Positive School Psychology*, *6*(4), 5161-5168.

Galletta, M., Portoghese, I., Melis, P., Gonzalez, C. I. A., & Finco, G. (2019b). The effect of nurse self-efficacy on job performance and patient outcomes. *Journal of Nursing Management*, *27*(6), 1203-1210. https://doi.org/10.1111/jonm.12807

Gebreheat, G., Teame, H., & Costa, E. I. (2023). The impact of transformational leadership style on nurses' job satisfaction: An integrative review. *SAGE Open Nursing*, *9*, Article 23779608231197428. https://doi.org/10.1177/23779608231197428

Hartner-Tiefenthaler, M., Loerinc, I., Hodzic, S., & Kubicek, B. (2022). Development and validation of a scale to measure team communication behaviors. *Frontiers in Psychology*, *13*, Article 961732. https://doi.org/10.3389/fpsyg.2022.961732

Huang, T. L., Friesner, D., Ho, L. H., Yeh, S. L., Lai, C. L., & Teng, C. I. (2020). Relationship among upgrades in academic qualifications, practice accreditations, self-efficacy, outcome expectations and nurses' career interest. *Journal of Nursing Management*, *28*(3), 461-470. https://doi.org/10.1111/jonm.12915

Kanste, O., Miettunen, J., & Kyngäs, H. (2015). Psychometric properties of the Multifactor Leadership Questionnaire among nurses. *Journal of Nursing Management*, *23*(2), 180-192. https://doi.org/10.1111/jonm.12229

Krepia, V., Toska, A., & Svarna, E. (2022). Enhancing collaborative teamwork in healthcare: Strategies for leadership development. *Nurse Leader*, *20*(2), 121-127. https://doi.org/10.1016/j.mnl.2021.09.003

Labrague, L. J., & Obeidat, A. A. (2022). Transformational leadership as a mediator between work–family conflict, nurse-reported patient safety outcomes, and job engagement. *Journal of Nursing Scholarship*, *54*(4), 493-500. https://doi.org/10.1111/jnu.12756

Lucero, R. J. (2023). Emotional resilience in nursing: Strategies for coping with stress and preventing burnout. *Journal of Nursing Education and Practice*, *13*(4), 36-42. https://doi.org/10.5430/jnep.v13n4p36

McSherry, R., Pearce, P., & Tingle, J. (2020). The importance of nurse leadership and evidence-based practice in nursing. *British Journal of Nursing*, *29*(12), 691-692. https://doi.org/10.12968/bjon.2020.29.12.691

Mohammed, C. A., Anand, R., & Ummer, V. S. (2021). Interprofessional Education (IPE): A framework for introducing teamwork and collaboration in health professions curriculum. *Medical Journal, Armed Forces India*, *77*(Suppl 1), S16-S21. https://doi.org/10.1016/j.mjafi.2020.12.014

Morales-García, W. C., Vallejos, M., Sairitupa-Sanchez, L. Z., Morales-García, S. B., Rivera-Lozada, O., & Morales-García, M. (2024). Depression, professional self-efficacy, and job performance as predictors of life satisfaction: The mediating role of work engagement in nurses. *Frontiers in Public Health*, *12*, Article 1268336. https://doi.org/10.3389/fpubh.2024.1268336

Nguyen, H. T., Liu, J., & Zhang, J. (2022). The role of ethical climate and organizational culture in healthcare organizations: A systematic review. *Journal of Health Care Management*, *67*(1), 58-69. https://doi.org/10.1097/JHM.0000000000000667

Othman, T., & Khrais, H. (2022). The relationship between transformational leadership, job satisfaction, and organizational commitment in Jordanian nurses. *Anaesthesia, Pain & Intensive Care*, *26*(3), 304-309. https://doi.org/10.35975/apic.v26i3.1912

Park, Y. J., & Lee, M. K. (2022). Effects of nurse-led nonpharmacological pain interventions for patients with cancer: A systematic review and meta-analysis. *Journal of Nursing Scholarship*, *54*(4), 422-433. https://doi.org/10.1111/jnu.12752

Qattan, A. (2017). *The effect of work-related stress and burnout on nursing performance and job satisfaction: A study of hospitals in Saudi Arabia* (Doctoral dissertation, University of Sheffield).

Quesado, A. J., Estanqueiro, M., Melo, M. B., & de Jesus Oliveira, I. (2022). Transformational leadership and nurses' satisfaction with their team: A cross-sectional study. *Nursing Practice Today*, *9*(3), 243-250. https://doi.org/10.18502/npt.v9i3.10214

Reed, S. M., Arbet, J., & Staubli, L. (2021). Clinical nurse specialists in the United States registered with a national provider identifier. *Clinical Nurse Specialist*, *35*(3), 119-128. https://doi.org/10.1097/NUR.0000000000000593

She, R., Chen, X., Li, L., Li, L., Huang, Z., & Lau, J. T. (2022). Factors associated with behavioral intention of free and self-paid severe acute respiratory coronavirus virus 2 (SARS-CoV-2) vaccination based on the social cognitive theory among nurses and doctors in China. *Infection Control & Hospital Epidemiology*, *43*(5), 609-615. https://doi.org/10.1017/ice.2021.194

Shirazi, Z., Ghiyasvandian, S., & Farsi, Z. (2021). Collaborative teamwork and its role in improving nursing practice: A cross-sectional study. *BMC Nursing*, *20*(1), 21-32. https://doi.org/10.1186/s12912-021-00594-w

Smith, R., & Johnson, K. (2021). The role of emotional resilience in nursing performance: Implications for healthcare organizations. *Nursing Research Journal*, *74*(5), 324-330.

Sümen, A., & Öncel, S. (2021). The use of Social Cognitive Theory in nursing graduate theses in Turkey: A systematic review. *SAGE Open Nursing*, *7*, Article 237796082110113. https://doi.org/10.1177/23779608211011324

Wang, H. F., Chen, Y. C., Yang, F. H., & Juan, C. W. (2021). Relationship between transformational leadership and nurses' job performance: The mediating effect of psychological safety. *Social Behavior and Personality: An International Journal*, *49*(5), 1-12. https://doi.org/10.2224/sbp.10141

Zahrah, H. (2020a). Barriers to nursing workforce participation in Saudi Arabia: A cultural and organizational perspective. *Arab Journal of Nursing*, *23*(2), 109-115. https://doi.org/10.5325/arnurs.23.2.0109

Zahrah, N. (2020b). Moderating-mediating effect of religious spirituality and work engagement: Antecedents of job performance. *Journal of Behavioral Science*, *28*(4), 1-19.

Zhao, J., Wang, Y., Xiao, B., Ye, F., Chen, J., Huang, Y., ... & Zoo, Z. (2024). Behaviors and influencing factors of Chinese oncology nurses towards hospice care: A cross-sectional study based on social cognitive theory in 2022. *BMC Palliative Care*, *23*(1), Article 53. https://doi.org/10.1186/s12904-024-01374-2