TRANSFORMATIONAL LEADERSHIP ON JOB SATISFACTION AMONG REGISTERED NURSES CARING PERSPECTIVE: A SYSTEMATIC REVIEW

By Vallejo et al

Review Article: Systematic Review, Meta-Analysis, Integrative Review, Scoping Review

TRANSFORMATIONAL LEADERSHIP ON JOB SATISFACTION AMONG REGISTERED NURSES CARING PERSPECTIVE: A SYSTEMATIC REVIEW

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Abstract

Background: The healthcare profession face scarcity due to increased global demand for registered nurses. The inadequacy of the healthcare workforce is a critical concern in an organization, as it is difficult to retain and recruit qualified staff to deliver safe and quality outcomes in the provision of care. Numerous studies identify transformational leadership style as an effective style to foster job satisfaction among licensed nurses.

Objective: The study aimed to review transformational leadership in relation to job satisfaction according to Registered Nurses perspective.

Design: This systematic review utilized the Cochrane Collaboration procedures and PRISMA statement.

Data source: A comprehensive search of Pubmed, CINAHL, ScienceDirect, Cochrane Library, Wiley Online, and Google Scholar published from 2018 to 2023. Ten articles of cross-sectional studies met the inclusion criteria.

Review Methods: The method utilized is the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies.

Results: All articles demonstrated that a transformational leadership style was reported to have a positive correlation among registered nurses' job satisfaction. In addition, four main themes emerged to determine job satisfaction variables on organizational commitment, work environment, competencies in evidence-based practices, and resilience of skilled nurses to minimize the repercussions of the inadequacy of nurses in the healthcare setting.

Conclusion: Transformational leadership contributes to improving job satisfaction and instituting the identified themes that could support the development of caring strategies that would close the gap of registered nurses' shortage in healthcare.

Keywords: *Caring, Job Satisfaction, Registered Nurses, Transformational Leadership*

INTRODUCTION

A global shortage of nurses compounds the great challenge in the healthcare system. According to the World Health Organization (WHO, 2020), registered nurses must strengthen their capacity for effective leadership to maximize the opportunities for workforce retention, employment conditions, fair compensation, deployment, regulation, and staff education to ensure the quality and safety of the healthcare system.

Transformational leadership is defined as the capacity to inspire and motivate team members and create an optimistic environment Moreover, transformational leaders exemplify the concept of charisma, inspiration, intellectual stimulation, or individualized consideration to guide followers to think beyond their self-interests by serving as role models for their subordinates for the sake of the organization and its goals. These leaders cultivate respect and trust within the organization by demonstrating ethical behavior, commitment to excellence, and genuine care for their team members' well-being (Bass, 1990). This trust is crucial for open communication, collaboration and a shared vision among nursing staff through supportive practices and policies that enhance motivation, engagement, and commitment to their work leading to job satisfaction and better outcomes in hospital settings.

The research found that transformational leadership boosts job satisfaction among nurses in Saudi Arabia to ensure the insights relevant to the specific cultural, social, and economic context (Alzahrani & Hasan, 2019). Another research showed that the transformational leadership model in clinical settings enhances job satisfaction among nurses by fostering an environment that promotes professional growth, collaboration, and well-being. This approach can lead to several positive outcomes in nursing environments professional development, a shared vision, recognition of achievements, and teamwork can enhance job satisfaction among nursing staff to achieve better patient outcomes and a more effective healthcare system (Gebreheat et al., 2023).

In addition, the findings indicate that pursuing a Bachelor of Science in Nursing (BSN) or other advanced educational qualifications significantly improves the nursing workforce skills. A well-educated nursing staff possesses enhanced clinical knowledge and skills, which enables them to deliver high-quality patient care, exhibit clinical competence, and make significant contributions to the nursing profession (Arsat et al., 2022).

A study of fostering a supportive work environment, investing in professional growth, and prioritizing patient-centered care can empower nurses to enhance their caregiving behaviors and improve overall patient satisfaction (Price et al., 2018). Factors contributing to ongoing dissatisfaction may include systemic issues such as inadequate staffing levels, patient understanding, and the emotional and physical demands placed on nursing professionals. Ultimately, a collaborative approach that values the caring contributions of nurses creates a more effective and responsive healthcare system.

In summary, the interaction of transformational leadership, educational attainment, and management relationships results in a robust framework for increasing job satisfaction among nurses. This holistic caring approach emphasizes the importance of leadership development and continuous education for a more competent and satisfied nursing workforce for professional development that provides mentoring support, and direction to provide quality patient care to enhance patient outcomes and overall organizational success (Tamata & Mohammadnezhad, 2023).

However, a recent study suggested that the global deficit in qualified nurses highlights the crucial need to address the gap in patient safety and the well-being of nurses, while simultaneously diminishing the overall quality standards of healthcare. Furthermore, the financial challenges of healthcare organizations

are increasing, resulting in greater safety concerns for patients and nursing staff (Wells-English, Giese, & Price, 2019). Therefore, our systematic review highlights the diverse literature required to establish a comprehensive and conclusive study that will provide insight into the evidence of transformational leadership style on job satisfaction and themes for caring strategies to retain long-term qualified nursing professionals in healthcare.

METHODS

Design

A systematic review was designed and implemented following Cochrane Collaboration protocols (Higgins et al., 2023) and Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement Flow Diagram (Page et al.,2021) (Figure 1).

Search Methods

This study used the PICO model to comprehensively outline the various components associated with the identified problem (P)- Population- Registered Nurses employed in hospital settings; (I)- Intervention-Transformational leadership style; (C) Comparison- Nursing Directors, Managers, Leaders; and Followers (O)-Outcome- effects on registered nurses' job satisfaction that defines the fundamental elements of the research question in evidence-based practice (Jordan et al., 2018).

The literature databases were searched from Pubmed, CINAHL, ScienceDirect, Cochrane Library, Wiley Online, and Google Scholar using the following keywords: "transformational leadership [MeSH] "leadership" and " registered nurses" [MeSH]", or "healthcare professional", and " job satisfaction [MeSH]" or "job retention" and "safety [MeSH] "performance outcome". The search was limited to "title/abstract" before proceeding to a full-text evaluation.

Search Outcome

The literature search yielded 1,655: 125,55, 10 from CINAHL Pubmed, ScienceDirect, Cochrane Library, Wiley Online, and Google Scholar of relevant articles. Inclusion criteria: only studies published in full-text English in hospital/ community settings, and primary studies with the correlation between transformational leadership and registered nurses' job satisfaction were eligible based on the research questions. Exclusion criteria: nonprimary sources such as commentary study designs, editorials, and dissertation papers have been excluded (Figure 1).

Selection of Studies

All types of studies (qualitative, quantitative, and mixed-method) were reported to the Mendeley reference manager. The titles and abstracts of all articles report transformational leadership on nurses' job satisfaction. The articles were also checked for duplication of articles or studies, published from 2018 to 2023, and peer-reviewed journals, published books, and the World Health Organization were examined and included for further analysis. Furthermore, ten articles were retrieved that address transformational leadership on registered nurses' job satisfaction with the final decision based on the consensus of the author C.B.B. (Table 1).

Quality Appraisal

This study performed the methodological quality of the articles utilizing the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies (Moola et al., 2020). The scale consists of 8 questions that were assessed for risk of bias in the method of studies. And rated the quality of the studies based on a comprehensive explanation of the background, and a satisfactory statistical examination was conducted. Next, the articles that obtained scores of 8/8, 7–5/8, and less than 5/8 were categorized as high, moderate, and

low quality, respectively. Consequently, ten studies were of high methodological rigor as all of these research papers received a "yes" evaluation. All the studies in the review focused on questions using appropriate research methods.

Data Abstraction

The data abstraction sheet was developed using an Excel table.

Data Analysis/Synthesis

The authors recorded the author(s), year of publication, country of origin, aim, study design, sample size, research methods, results, and limitations of the selected article (Table 2). Finally, the selected articles were subsequently categorized into four major themes of job satisfaction: organizational commitment, work environment, competencies in evidence-based practices, and resilience.

RESULTS
Characteristics of Studies

In this systematic review of quantitative studies, ten articles demonstrated the association between transformational leadership style and registered nurses' job satisfaction. Studies delved into review were cross-sectional design and conducted in Australia (n=1), Lebanon (n=1), Jordan (n=1), Slovakia (n=1), Pakistan (n=1), Kuwait (n=1), Saudi Arabia (n=1), Portugal (n=1), Philippines (n=1), and Qatar (n=1). Seven articles showed a strong positive correlation between transformational leadership (Moon et al., 2019; Othman & Khrais., 2022; Jankelová & Joniaková., 2021; AlFadhalah & Elamir., 2019; Albagawi 2019; Quesado et al., 2022; Asif et al., 2019). Moreover, three studies indicate a moderate relationship between transformational leadership and job satisfaction (Salam et al., 2023; Al-Thawabiya et al., 2023; Labrague et al., 2020). Furthermore, one study demonstrated a moderate correlation between

transactional and autocratic leadership styles (Al-Thawabiya et al., 2023).

The total sample size from these studies was 2,243 registered nurses ranging from 89 to 1,626. In particular, 5 studies used the Multifactor Leadership Questionnaire (MLQ). Furthermore, 5 studies utilized the Global Transformational Leadership Scale (GTL) or a combination of the Job Satisfaction Survey, Organizational Commitment Survey, Group Satisfaction Scale, Work Quality Index, and Toxic Leadership Behaviors of Nurse Managers Scale. Finally, a correlation analysis was conducted on all articles to illustrate the relationship between the transformational leadership style and registered nurses' job satisfaction.

Themes for Nurses' Job Satisfaction

Numerous articles were identified to be positively connected with variables of job satisfaction. Studies were categorized into four themes: organizational commitment, work environment, competencies in evidence-based practice, and resilience in the strategic caring discipline of registered nurses.

Theme 1: Organizational Commitment

The theme of organizational commitment is critical in making decisions about health policy and human resource management, emphasizing professional development by acknowledging individual contributions, rewards for performance, and a supportive work environment that increases job satisfaction to improve patient care and organizational effectiveness (Stewart et al., 2020). Furthermore, the research indicates that transformational leadership, in conjunction with psychological well-being and empowerment, is essential in influencing nurses to feel psychologically safe and empowered to make decisions with their work and remain committed to their organization (Bass,1990; Iqbal et al., 2020).
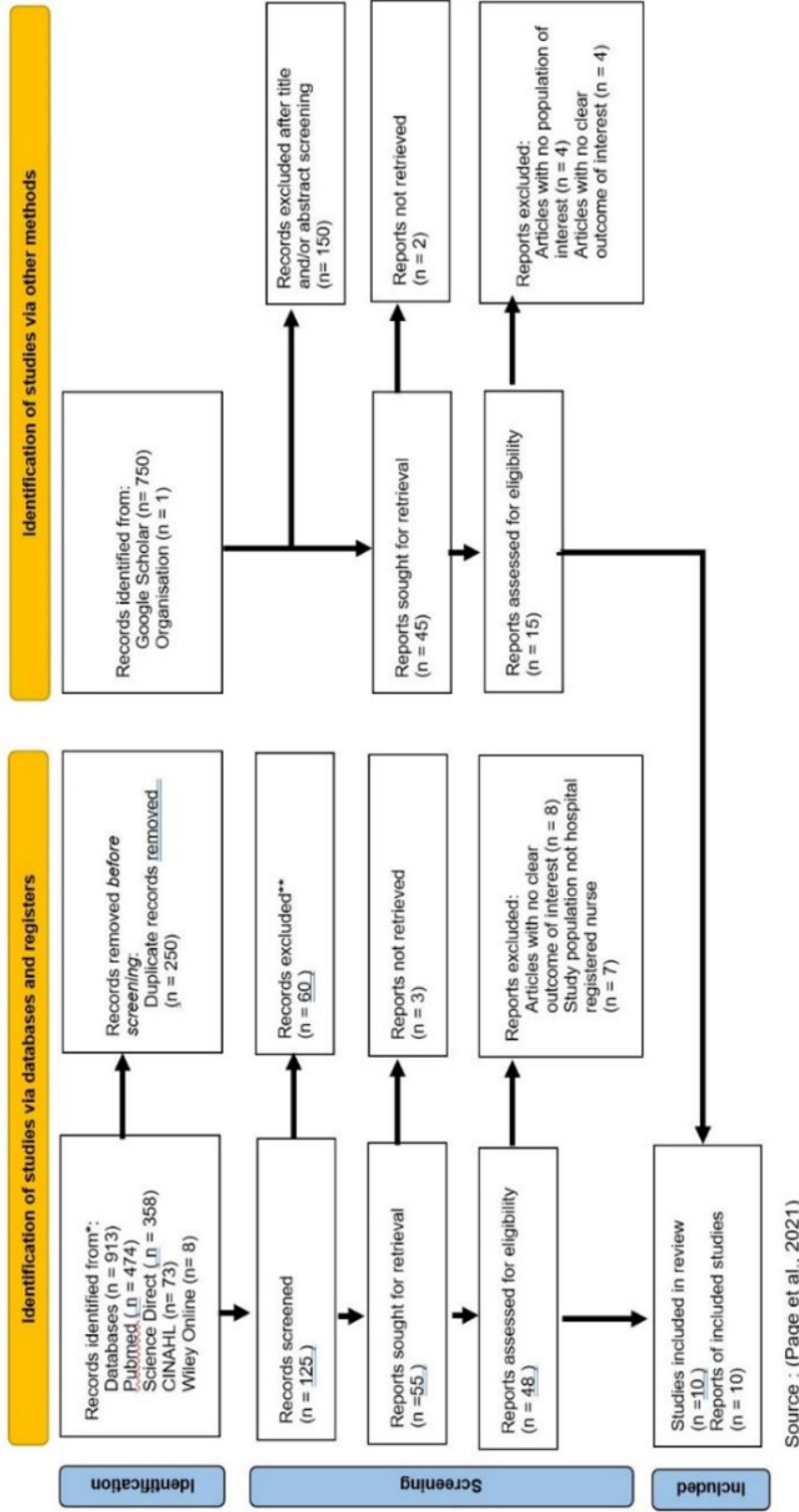
Identification of studies via databases and registers

Identification of studies via other methods

Identification

Records identified from*:
Databases (n = 913)
Pubmed (n = 474)
Science Direct (n = 358)
CINAHL (n= 73)
Wiley Online (n= 8)

Records identified from:
Google Scholar (n= 750)
Organisation (n = 1)

Records removed *before screening*:
Duplicate records removed
(n = 250)

Screening

Records screened
(n = 125)

Records excluded**
(n = 60)

Reports sought for retrieval
(n = 55)

Reports not retrieved
(n = 3)

Reports assessed for eligibility
(n = 48)

Reports excluded:
Articles with no clear outcome of interest (n = 8)
Study population not hospital registered nurse
(n = 7)

Records excluded after title and/or abstract screening
(n= 150)

Reports sought for retrieval
(n = 45)

Reports not retrieved
(n = 2)

Reports assessed for eligibility
(n = 15)

Reports excluded:
Articles with no population of interest (n = 4)
Articles with no clear outcome of interest (n = 4)

Included

Studies included in review
(n =10)
Reports of included studies
(n = 10)

Source : (Page et al., 2021)

Figure 1. PRISMA 2020 Flow Diagram

Table 1: JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies

	Moon, 2019	Salam, 2023	Othman, 2022	Jankelová, 2021	Alfadhalah, 2019	Albagawi, 2019	Quesado, 2022	Labrague, 2020	Asif, 2019	Althawabiya, 2023
1. Were the criteria for inclusion in the sample clearly defined?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Were the study subjects and the setting described in detail?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Was the exposure measured in a valid and reliable way?	Yes	Yes	Not clear	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Were objective, standard criteria used for measurement of the condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5. Were confounding factors identified?	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
6. Were strategies to deal with confounding factors stated?	Yes	Yes	Not clear	Not clear	Yes	Yes	No	Yes	Yes	Yes
7. Were the outcomes measured in a valid and reliable way?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8. Was appropriate statistical analysis used?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overall appraisal :	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

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Table 2: Analysis of Studies Included in the Review

Authors, Country	Aim	Study Design, Sample Size	Methods	Results	Limitations
Moon et al., (2019). Australia	The leadership approaches of nurse managers (NMs) could potentially impede the attainment of Magnet status	Survey N= 78 NM	MLQ-6S;	Positive correlation with TL with' higher education (p = 0.02) and older age (p = 0.03); Passive/avoidant leadership by females (p = 0.04) and younger (p = 0.06)	Quality assessed as "FAIR"
Salam et al., (2023). Lebanon	To determine the factors that predict resilience and the perceptions of transformational leadership among a convenience sample of RN	cross-sectional N= 240 RN	RSTM; GTL Scale;	Moderately correlated resilience scores and perception of GTL (r = 0.53, p < 0.05)	Quality assessed as "FAIR" Self-reported measures potential information bias limits its generalizability
Othman & Khrais (2022). Jordan	To examine the correlation between transformational leadership, job satisfaction, and organizational commitment among nurses	cross-sectional N= 253 RN	GTL Scale JSS; OCS	Positive correlation between TL and JS, (r= 0.297, P = 0.000); positive relationship between TL and OC (r= 0.200 , P = 0.001)	Quality assessed as "FAIR" convenient sampling method
Jankelová & Joniaková (2021). Slovakia	To determine the link between communication skills and the leadership approach of First-line nurse managers (FLNMs) with nurses' job satisfaction, and to examine the influence of three moderators on the strength of this relationship.	Survey N=132 FLNM	MLQ	FLNM with higher JS from subordinates (β = 0.52). Significant direct effects between both variables and JS (β = 0.65)	Quality assessed as "FAIR"

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Authors, Country	Aim	Study Design, Sample Size	Methods	Results	Limitations
Alfadhalah & Elamir (2019) Kuwait	To determine and assess leadership styles in six government general hospitals.	cross-sectional N= 66 leaders and 1,626 followers	MLQ	Age is significant in surgical and nursing departments (p= 0.033; p≤0.001)	Quality assessed as "FAIR"Self-reporting questionnaires may contain social desirability bias
Albagawi, B. (2019). Saudi Arabia	To investigate the correlation between nurse managers' leadership approaches and the job satisfaction level experienced by staff nurses within hospital environments	descriptive correlational N= 184 staff nurses	MLQ 38 item WQI;	Positive correlation between TL and JS (r =0.258; p=0.000)	Quality assessed as "FAIR"
Quesado et al., (2022). Portugal	To examine the correlation between transformational leadership style and job satisfaction among nurses with their teams	cross-sectional N=95 nurses	GTL Scale; GS Scale	Positive correlation between GTL and GS Scale (r=0.740; p=0.000)	Quality assessed as "FAIR"
Labrague et al., (2020). Philippines	To examine the influence of toxic and transformational leadership practices on nurses' job satisfaction, psychological distress, absenteeism, and intent to leave the organization or the nursing profession.	cross-sectional N= 770 RN	ToxBH-NM; 7-item GTL Scale;	TL JS(β = .34; p < .001; 95% , CI = 0.28 to 0.43) and intent to leave profession (β =0.15; p < .001;95%; CI = -0.40 to -0.14)	Quality assessed as "FAIR"

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Authors, Country	Aim	Study Design, Sample Size	Methods	Results	Limitations
Asif et al., (2019). Pakistan	To investigate the connections among transformational leadership (TL), SE; JS; APO and QOC	cross-sectional N= 600 female RN, HN, or NM	7-item GTL Scale	TL = 0.72–0.88; SE = 0.74–0.85 ; JS = 0.79-0.84 ; APO = 0.73–0.85 : QOC= 0.74–0.88	Quality assessed as "FAIR"
Al-Thawabiya et al., (2023). Qatar	To investigate the various styles of nursing leadership and the skills associated with transformational leadership among nursing leaders	cross-sectional N=89 nurses	MLQ 11 items	DON transformational (15.6 ± 4.7), transactional (5.7 ± 1.9), and autocratic styles (4.3 ± 3.4) . HN transformational (13.7 ± 6.1), transactional (5.3 ± 2.4), and autocratic styles (3.0 ± 2.1).	Quality assessed as "FAIR". The convenience sampling method is limited in its generalizability. Self-reporting questionnaires may contain social desirability bias

Notes: RN= registered nurses ; HN= Head Nurse ; FLNM= First-line nurse managers ; NM= nurse manager; DON= Directors of Nursing ; MLQ= Multifactor Leadership Questionnaire; GTL=Global Transformational Leadership Scale; RSTM= Resilience Scale

JSS= Job Satisfaction Survey; OCS= Organizational Commitment Survey; GS= Group Satisfaction Scale; WQI= Work Quality Index ; ToxBH-NM= Toxic Leadership Behaviors of Nurse Managers Scale; TL= Transformational Leadership; SE= Structural Empowerment; JS= Job Satisfaction; APO= Adverse Patient Outcomes; QOC= Quality of Care

However, research shows an increased patient-nurse ratio and high workloads lead to burnout and job dissatisfaction (Mousazadeh et al., 2019). Nurse job discontent can be attributed to stressful work situations, limited career opportunities, and inefficient leadership (Hung & Lam, 2020). Addressing these challenges promotes interprofessional collaboration and organizational commitment to improve job satisfaction among the nursing workforce caring strategies.

Theme 2: Work environment

The theme of the work environment cultivates a culture of collaboration, support, and professional growth among nursing staff, hence generating a positive workplace and improving job satisfaction and retention rates (Specchia et al., 2021). In addition, research focuses on nurses' caring relationship practice to motivate and empower nurses to participate in greater therapeutic connections and provide better patient experiences. The caring perspective suggests that self-awareness and recognizing one's internal ethos enables nurses to deliver holistic care, advocate for their patients, and contribute positively to the healthcare environment (Karlsson & Pennbrant, 2020). This foundational understanding ultimately leads to improved patient outcomes and a more fulfilling nursing practice. Furthermore, the strategic management of the nurse leader's future endeavors for patient safety and dedicating significant resources to develop a Magnet hospital recognition that represents excellence in nursing and healthcare delivery (Nurmeksela et al., 2021). Conversely, a study revealed negative consequences of inadequate registered nurses (RN) higher risk of morbidity as a secondary result of heavy workloads, and disapproved of nursing diplomas to fill the gap of registered nurse shortages (Griffiths et al., 2019). The education and training gap contributes to the persistent problems of finding skilled nursing staff, worsening patient care, and safety concerns.

In summary, effective leadership style, workplace motivation, strategic planning,

improving educational programs, and adequate staffing are all critical for creating a quality healthcare environment to ensure the nursing workforce (WHO, 2020).

Theme 3: Competencies in Evidence-Based Practices

The theme of evidence-based practice (EBP) has emerged as a fundamental component of modern health care, serving as a cornerstone for delivering high-quality patient outcomes. This method combines the best available research data with clinical experience and patient values, ensuring that healthcare choices are based on the most recent and relevant information. As healthcare systems evolve, the necessity for EBP becomes increasingly pronounced, particularly in light of the growing complexities of patient care (Bianchi et al., 2018). Another study highlights nurse managers' proficiency in cultivating fundamental competencies before advancing to higher positions (García et al., 2020) and being recognized as Magnet Hospital for their commitment to nursing excellence for professional growth and improved patient care in the healthcare system (ANCC). Nurse managers demonstrate good communication, critical thinking, and the ability to mentor and motivate staff (Bass,1990) By honing these skills, nurse managers may better negotiate healthcare delivery and advocate for practice that will result in better patient outcomes and team performance. Moreover, the study suggests resilience interventions for emergency nurses to help them cope with the pressures of their roles and encourage evidence-based practice (Haugland et al., 2023).

For example, interactive teaching methodologies were employed to investigate and evaluate research for its practical application in real-world scenarios (Horntvedt, et al., 2018). In addition, the study also emphasized the process of active participation, competence, and critical thinking among nursing professionals for improved outcomes (Hoegen et al., 2022). In conclusion, integrating evidence-based practice into nursing and health

care could facilitate the gap of evolving patient demographics, increasing health complexities, and technological advancements. By addressing the existing deficiencies in EBP and resource allocation, healthcare systems can enhance the quality of care ultimately leading to better health outcomes and a more efficient use of resources and responsiveness to future challenges (Bianchi et al., 2018).

Theme 4: Resilience

The theme of resilience is described as the maintenance or rapid recovery of mental health during or after periods of exposure to a key life transition phase, or physical disease to enhance mental well-being, job satisfaction, and better quality of patient care (Kunzler et al., 2020). Individuals with resilience negotiate the complexities and stresses of their work contexts, resulting in increased patient satisfaction and healthcare providers. For example, the web-based programs in various healthcare settings to deal with job challenges can help improve resilience and manage stress for better mental health (Henshall et al., 2023). The study showed the importance of leadership education and training, which can empower nurses to take on greater responsibilities leveraging a culture of collaboration and innovation to improve patient outcomes. Furthermore, investing in such programs enhances individual nurse capabilities that contribute to the overall strength and resilience in healthcare, ensuring meet the challenges of ever-evolving healthcare for efficient and effective quality care (den Breejen-de Hooge et al., 2021). A study also suggests that healthcare professionals are urged to adopt holistic caring strategies that include mindfulness practices, peer support systems, and professional development opportunities that enable nursing staff to foster resilience (Wei et al., 2021).

Hence, a qualitative study focuses on registered nurse leaders' challenges related to working conditions, fair compensation, and career growth to ensure a stable workforce (Roth et al., 2022) and maintain high standards of patient safety and quality care (JCI). Ultimately, fostering resilience among nurses is excellent for their well-being which is vital for sustainable healthcare.

DISCUSSION

This systematic review reveals transformational leadership is an effective intervention to boost job satisfaction. And a strong positive correlation to reduced adverse patient outcomes (Asif et al., 2019. The result shows that strategic planning fosters the advancement of skills across the entire registered nurse workforce for recognition of magnet status (Moon et al, 2019), and a supportive work environment inspires nurses to achieve excellence (Othman & Khrais 2022). In addition, communication and transformational leadership are highly significant exhibited by first-line nurse managers (Jankelová & Joniaková., 2021). Furthermore, the findings indicate that directors of nursing employ a transformational leadership style to a greater extent than head nurses (Al-Thawabiya, et al., 2023). Ultimately, the review reveals that implementing predictive models and formulating policies enhance the resilience and retention of nurses to build camaraderie among healthcare professionals (Salam et al.,2023). Nevertheless, the study demonstrated a focus on various leadership styles in Saudi hospitals, the nurse managers exhibited a greater perspective toward transformational leadership behaviors than transactional and laissez-faire leadership styles (Albagawi, 2019). Overall, transformational leadership promotes job satisfaction and the effectiveness of registered nurses' professional growth.

CONCLUSION

Transformational leadership has been demonstrated to nurture job satisfaction and integrating caring strategies can support the

retention of registered nurses to ensure an optimal healthcare system. Moreover, the results of this review have identified themes that strengthen the caring perspectives. Therefore, more research must be investigated to develop robust evidence-based practices and mentoring in baccalaureate nurses' leadership and professional development programs to promote an effective and efficient holistic caring approach to healthcare organizations.

LIMITATIONS

The literature search was limited to articles published between 2018 and 2023. In addition, the three studied articles' populations did not specify nurses' educational qualifications. Such limitations can significantly impact the understanding and dissemination of research findings.

IMPLICATIONS

The findings of this review demonstrate that transformational leadership styles greatly impact job satisfaction in the key attributes of caring among registered nurses (Wei et al., 2021). Moreover, this can strengthen various leadership styles that can improve job satisfaction for nurses with bachelor's degrees tailored to address effective career advancement and training programs. Furthermore, it can be utilized by healthcare organizations' policymakers to promote nurse specialist leadership development which is essential in delivering improved quality care (Specchia et al., 2021).

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DECLARATION OF CONFLICTING INTEREST

The authors declared no potential conflicts of interest.

AUTHOR CONTRIBUTION

Elizabeth Vallejo: Conceptualization, methodology, validation, formal analysis, writing-original draft, writing-review, and editing.

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REFERENCES

Alfadhalah, T., & Elamir, H. (2019). Exploring leadership styles in government hospitals in Kuwait. Leadership in Health Services, 32(3). https://doi.org/10.1108/LHS-11-2018-0059

Albagawi, B. (2019). Leadership Styles of Nurse Managers and Job Satisfaction of Staff Nurses: Correlational Design Study. European Scientific Journal ESJ, 15(3). https://doi.org/10.19044/esj.2019.v15n3p254

Al-Thawabiya, A., Singh, K., Al-Lenjawi, B. A., & Alomari, A. (2023). Leadership styles and transformational leadership skills among nurse leaders in Qatar, A cross-sectional study. In Nursing Open. https://doi.org/10.1002/nop2.163

Alzahrani, S., & Hasan, A. A. (2019). Transformational Leadership Style on Nursing Job Satisfaction Amongst Nurses in Hospital Settings: Findings From Systematic Review. Global Journal of Health Science, 11(6). https://doi.org/10.5539/gjhs.v11n6p25

American Nurses Credentialing Center (2024). ANCC Magnet Recognition Program. available online https://www.nursingworld.org/organizational-programs/magnet/ (cited 2024 February 18)

Arsat, N., Chua, B. S., Wider, W., & Dasan, N. (2022). The Impact of Working Environment on Nurses' Caring Behavior in Sabah, Malaysia. Frontiers in Public Health, 10. https://doi.org/10.3389/fpubh.2022.858144

Asif, M., Jameel, A., Hussain, A., Hwang, J., & Sahito, N. (2019). Linking transformational leadership with nurse-assessed adverse patient outcomes and the quality of care: Assessing the role of job satisfaction and structural empowerment. International Journal of Environmental Research and Public Health, 16(13). https://doi.org/10.3390/ijerph1613238 1.

Bass, B.M (1990) Bass & Stogdill's Handbook of Leadership, 3rd ed. Cambridge: The Free Press

Bianchi, M., Bagnasco, A., Bressan, V., Barisone, M., Timmins, F., Rossi, S., Pellegrini, R., Aleo, G., & Sasso, L. (2018). A review of the role of nurse leadership in promoting and sustaining evidence-based practice. Journal of Nursing Management, 26(8). https://doi.org/10.1111/jonm.12638

den Breejen-de Hooge, L. E., van Os-Medendorp, H., & Hafsteinsdóttir, T. B. (2021). Is leadership of nurses associated with nurse-reported quality care? A cross-sectional survey. Journal of Research in Nursing, 26(1–2). https://doi.org/10.1177/174498712097617 6

García, A. G., Pinto-Carral, A., Villorejo, J. S., & Marqués-Sánchez, P. (2020). Nurse manager core competencies: A proposal in the Spanish health system. International Journal of Environmental Research and Public Health, 17(9). https://doi.org/10.3390/ijerph1709317 3

Gebreheat, G., Teame, H., & Costa, E. I. (2023). The Impact of Transformational Leadership Style on Nurses' Job Satisfaction: An Integrative Review. In SAGE Open Nursing (Vol. 9). https://doi.org/10.1177/237796082311 97428

Griffiths, P., Maruotti, A., Recio Saucedo, A., Redfern, O. C., Ball, J. E., Briggs, J., Dall'Ora, C., Schmidt, P. E., & Smith, G. B. (2019). Nurse staffing, nursing assistants and hospital mortality: Retrospective longitudinal cohort study. BMJ Quality and Safety, 28(8). https://doi.org/10.1136/bmjqs-2018-008043

Haugland, W. A., Crenshaw, J. T., & Gilder, R. E. (2023). Implementing a Resilience Bundle for Emergency Nurses: An Evidence-Based Practice Project. Journal of Emergency Nursing, 49(1). https://doi.org/10.1016/j.jen.2022.08.0 9

Henshall, C., Davey, Z., Srikesavan, C., Hart, L., Butcher, D., & Cipriani, A. (2023). Implementation of a Web-Based Resilience Enhancement Training for Nurses: Pilot Randomized Controlled Trial. Journal of Medical Internet Research, 25. https://doi.org/10.2196/43771

Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). Cochrane Handbook for Systematic Reviews of Interventions version 6.4 (updated August 2023). Cochrane, 2023. Available from www.training.cochrane.org/handbook

Hoegen, P., Vos, M., van Oostveen, C., de Bot, C., Echteld, M. A., Maaskant, J., & Vermeulen, H. (2022). Nurse Leadership and Work Environment Association with Outcome Expectancy and Self-Efficacy in Evidence-Based Practice among Hospital Nurses in the Netherlands: A Cross-Sectional Study. International Journal of Environmental Research and Public Health, 19(21). https://doi.org/10.3390/ijerph1921144 2

Horntvedt, M. E. T., Nordsteien, A., Fermann, T., & Severinsson, E. (2018). Strategies for teaching evidence-based practice in nursing education: A thematic literature review. In BMC Medical Education (Vol. 18, Issue 1). https://doi.org/10.1186/s12909-018-1278-z

Hung, M. S. Y., & Lam, S. K. K. (2020). Antecedents and contextual factors affecting occupational turnover among registered nurses in public hospitals in Hong Kong: A qualitative descriptive study. International Journal of Environmental Research and Public Health, 17(11). https://doi.org/10.3390/ijerph1711383 4

Iqbal, K., Fatima, T., & Naveed, M. (2020). The impact of transformational leadership on nurses' organizational commitment: A multiple mediation model. European Journal of Investigation in Health, Psychology and Education, 10(1). https://doi.org/10.3390/ejihpe1001002 1

Jankelová, N., & Joniaková, Z. (2021). Communication skills and transformational leadership style of first-line nurse managers in relation to job satisfaction of nurses and moderators of this relationship.

Healthcare (Switzerland), 9(3). https://doi.org/10.3390/healthcare9030346

Joint Commission International (n.d). International Standards Patient Safety Goals available online https://www.jointcommissioninternati onal.org/standards/international-patient-safety-goals (cited on 2023 April 10).

Jordan, Z., Lockwood, C., Munn, Z., & Aromataris, E. (2018). Redeveloping the JBI model of evidence based healthcare. In International Journal of Evidence-Based Healthcare (Vol. 16, Issue 4). https://doi.org/10.1097/XEB.0000000 000000139

Karlsson, M., & Pennbrant, S. (2020). Ideas of caring in nursing practice. Nursing Philosophy, 21(4). https://doi.org/10.1111/nup.12325

Kunzler, A. M., Helmreich, I., Chmitorz, A., König, J., Binder, H., Wessa, M., & Lieb, K. (2020). Psychological interventions to foster resilience in healthcare professionals. In Cochrane Database of Systematic Reviews (Vol. 2020, Issue 7). https://doi.org/10.1002/14651858.CD0 12527.pub2

Labrague, L. J., Nwafor, C. E., & Tsaras, K. (2020). Influence of toxic and transformational leadership practices on nurses' job satisfaction, job stress, absenteeism, and turnover intention: A cross-sectional study. Journal of Nursing Management, 28(5). https://doi.org/10.1111/jonm.13053

Moola S, Munn Z, Tufanaru C, Aromataris E, Sears K, Sfetcu R, Currie M, Qureshi R, Mattis P, Lisy K, Mu P-F. Chapter 7: Systematic reviews of etiology and risk . In: Aromataris E, Munn Z (Editors). JBI Manual for Evidence Synthesis. JBI, 2020. Available

from https://synthesismanual.jbi.global (cited on 2024 January 8).

Moon, S. E., van Dam, P. J., & Kitsos, A. (2019). Measuring transformational leadership in establishing nursing care excellence. Healthcare (Switzerland), 7(4). https://doi.org/10.3390/healthcare7040132

Mousazadeh, S., Yektatalab, S., Momennasab, M., & Parvizy, S. (2019). Job satisfaction challenges of nurses in the intensive care unit: A qualitative study. Risk Management and Healthcare Policy, 12. https://doi.org/10.2147/RMHP.S21812

Nurmeksela, A., Zedreck Gonzalez, J. F., Kinnunen, J., & Kvist, T. (2021). Components of the Magnet® model provide structure for the future vision of nurse managers' work: A qualitative perspective of nurse managers. Journal of Nursing Management, 29(7).https://doi.org/10.1111/jonm.1337

Othman, T., & Khrais, H. (2022). The relationship between transformational leadership, job satisfaction, and organizational commitment in Jordanian nurses. Anaesthesia, Pain and Intensive Care, 26(3). https://doi.org/10.35975/apic.v26i3.1896

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. In The BMJ (Vol. 372). https://doi.org/10.1136/bmj.n71

Price, S. L., Paynter, M., Hall, L. M. G., & Reichert, C. (2018). The Intergenerational Impact of Management Relations on Nurse Career Satisfaction and Patient Care. Journal of Nursing Administration, 48(12).https://doi.org/10.1097/NNA.0000000000000695

Quesado, A. J., Estanqueiro, M., Melo, M. B., & Oliveira, I. de J. (2022). Transformational leadership and nurses' satisfaction with their team: A cross-sectional study. Nursing Practice Today, 9(3). https://doi.org/10.18502/npt.v9i3.10226

Roth, C., Wensing, M., Breckner, A., Mahler, C., Krug, K., & Berger, S. (2022). Keeping nurses in nursing: a qualitative study of German nurses' perceptions of push and pull factors to leave or stay in the profession. BMC Nursing, 21(1).https://doi.org/10.1186/s12912-022-00822-4

Salam, H. A., Dumit, N. Y., Clinton, M., & Mahfoud, Z. (2023). Transformational leadership and predictors of resilience among registered nurses: a cross-sectional survey in an underserved area. BMC Nursing, 22(1). https://doi.org/10.1186/s12912-023-01192-1

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. In International Journal of Environmental Research and Public Health (Vol. 18, Issue 4, pp. 1–15). MDPI AG. https://doi.org/10.3390/ijerph18041552

Stewart, N. J., MacLeod, M. L. P., Kosteniuk, J. G., Olynick, J., Penz, K. L., Karunanayake, C. P., Kulig, J. C.,

Labrecque, M. E., & Morgan, D. G. (2020). The importance of organizational commitment in rural nurses' intent to leave. Journal of Advanced Nursing, 76(12). https://doi.org/10.1111/jan.14536

Tamata, A. T., & Mohammadnezhad, M. (2023). A systematic review study on the factors affecting shortage of nursing workforce in the hospitals. In Nursing Open (Vol. 10, Issue 3). https://doi.org/10.1002/nop2.1434

Wei, H., Hardin, S. R., & Watson, J. (2021). A unitary caring science resilience-building model: Unifying the human caring theory and research-informed psychology and neuroscience evidence. In International Journal of Nursing Sciences (Vol. 8, Issue 1). https://doi.org/10.1016/j.ijnss.2020.11.003

Wells-English D, Giese J, Price J. Compassion fatigue and satisfaction: Influence on turnover among oncology nurses at an urban cancer center. Clinical Journal of Oncology Nursing. 2019;23(5). http://doi.org/10.1188/19.CJON.487-493

World Health Organization (2020), State of the World's Nursing 2020: Investing in Education, Jobs and Leadership. Geneva, 116p, available online https://apps.who.int/iris/handle/10665/331677 (cited on 2024 February 6).

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Case on Textile Employees", Springer Science and Business Media LLC, 2024
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