

The Impact of Transformational Leadership Style on Nurses' Job Satisfaction: An Integrative Review

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Gdiom Gebreheat^{1,2,3,4} , Hirut Teame⁵ and Emilia I Costa^{3,6}

Abstract

Introduction: The argument about whether leadership style affects nurses' job satisfaction is centered around the impact of different leadership styles on the work environment and the quality of care provided by nurses. Therefore, this review was primarily aimed at assessing the impact of transformational leadership style on the job satisfaction of hospital nurses.

Methods: This is an integrative review conducted according to the Whitemore and Knaf'l's framework. Comprehensive literature searches were conducted in PubMed, MEDLINE, CINAHL, Web of Science, Research4Life, and APA PsychInfo. In addition, studies were included through hand-searching from different sources of grey literature and a reference list of identified articles. All English articles published between 2012 and 2023 reporting the impact of transformational leadership style on nurses' job satisfaction were eligible for inclusion.

Results: Seventeen articles were included in the review, of which 16 were cross-sectional studies, while one was mixed. The majority ($n = 12$) of the studies were conducted in at least two or more healthcare settings, with a total of 5841 nurses. Almost all ($n = 16$) articles reported the positive influence of transformational leadership on nurses' job satisfaction. In addition, the transformational leadership style was reported to have a positive impact on nurses' intentions to stay at work, quality care, and patient outcomes.

Conclusion: By adopting a transformational leadership approach within clinical environments, there is a potential to boost nurses' job satisfaction.

Keywords

effect, satisfaction, job, leadership, nursing

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Introduction

Various nursing leadership styles have a direct or indirect impact on the nursing profession, professionals, and patient outcomes (Sfantou et al., 2017). Each leadership style has its own unique approach and impact on the nursing field. Transformational, transactional, passive/avoidant leadership, servant, situational, authentic, charismatic, and quantum are among the widely implemented leadership styles in the healthcare system (Carrara et al., 2017; Lee et al., 2019).

In hospitals, leadership is seen as a central element of a well-coordinated and integrated provision of care (Sfantou et al., 2017). The structural measures influenced by nurse managers' leadership styles are believed to be important determinants of nurses' job satisfaction, morale, productivity, and retention (Asamani et al., 2016; Kiwanuka et al., 2021;

Pishgoorie et al., 2019). Therefore, the active role and participation of nurses in implementing the best leadership style

¹School of Health and Social Care, Edinburgh Napier University, Edinburgh, UK

²Faculty of Medicine and Health Sciences, University of Oviedo, Spain

³Nursing Department, Health School, University of Algarve, Faro, Portugal

⁴Sport Sciences and Health Care, Polytechnic Institute of Santarém, Portugal

⁵Department of Public Health, College of Medicine and Health Sciences,

Adigrat University, Adigrat, Ethiopia

⁶Health Sciences Research Unit: Nursing, Coimbra, Portugal

Corresponding Author:

Gdiom Gebreheat, School of Health and Social Care, Edinburgh Napier University, Edinburgh, UK.

Emails: gdiom7@mail.com/4052061 | @live.napier.ac.uk



are crucial to ensuring quality care, advancing the profession, and creating a conducive environment in the health industry.

Transformational leadership has become one of the leadership styles believed to have a positive effect on employee satisfaction, engagement, and performance. It is a theory of leadership where leaders work together in teams to explore a needed paradigm shift and create a vision to realize it with other inspirational members of a group (Kiwanuka et al., 2021; Moon et al., 2019). But also, it is a demanding leadership style that directly correlates to organizational commitment (Al-Yami et al., 2018; Carrara et al., 2017).

Conversely, few evidences did not show the scenario about the positive impact of the transformational leadership style. A cross-sectional study from Iran indicated that there was a positive correlation between transformational leadership and anticipated turnover (Pishgooie et al., 2019). In addition, the adoption of transformational leadership seems way behind in health care settings. A study from Belgium revealed that head nurses and nurse directors were excessively implementing passive-avoidant leadership styles in contrast to transformational leadership styles in nursing homes. Subsequently, all leadership outcomes (extra effort, effectiveness, and satisfaction) were significantly lower among both the head and director of nurses (Poels et al., 2020).

Furthermore, understanding the impact of nurse managers' leadership styles on job satisfaction may lead to increased retention (Suliman et al., 2020). Subsequently, this can contribute to the overall achievement of a given healthcare organization. Therefore, it is necessary to gather the kinds of literature necessary to develop a holistic and conclusive idea of whether transformational leadership influences nurses' job satisfaction. As such, this integrative review will provide tangible evidence of the impact of transformational leadership style on the job satisfaction of hospital nurses.

Research Question

Does transformational leadership style affect hospital nurses' job satisfaction?

Methods

Design

An integrative review approach was used as it allows for findings from diverse methodologies to be applied to clinical practice, and evidence-based practice initiatives (Whittemore & Knafel, 2005).

Search Methods

The initial search for literature was carried out from August to September 2021 and last updated on May 18, 2023.

Literature was searched from online databases such as PubMed, MEDLINE, CINAHL, Web of Science, Research4Life, and APA PsychInfo. In addition, articles were identified from the Edinburgh Napier University repository, reference lists of included articles, Google, Google Scholar, and World Health Organization websites. The main search terms used in the databases were "Transformational leadership AND Nurs* AND Job satisfaction." The advanced searching options available in each online database were executed using the predefined search terms and strategies (Appendix A).

Inclusion/Exclusion Criteria

Inclusion Criteria. All English-language studies that reported the impact of transformational leadership on hospital nurses' job satisfaction were eligible for the review. To reach an up-to-date conclusion, the authors included articles published between January 1, 2012, and May 18, 2023. The integrative review allows the inclusion of studies with diverse methodologies. Therefore, there were no restrictions for inclusion of studies based on their sample size or design.

Exclusion Criteria. Nonprimary sources such as editorials, opinion pieces, letters, and review papers have been excluded. Also, an article dealing with multidisciplinary professionals was ineligible unless it had a piece of result relevant to the review. Furthermore, the authors excluded inaccessible articles after contacting the corresponding author three times, through email. The final decision on whether to include an article was based on the consensus of the two authors.

Selection of Studies

All database search results were exported to the Mendeley reference manager software version 1.19.4. With the help of the software, duplicate search results were deleted. Next, a two-step selection process was undertaken. In step 1, two independent reviewers (GG, EC) scanned the titles and abstracts of all articles reporting the impact of transformational leadership on nurses' job satisfaction. And in step 2, full-text articles were screened by the reviewers to determine their eligibility. In the end, fully eligible articles were selected for further analysis (Figure 1). Evaluators' disagreements were resolved via a third reviewer (HT).

Data Extraction, Analysis, and Synthesis

The integrative review framework developed by Whittemore and Knafel (2005) was used as guidance during data extraction, analysis, and synthesis. Accordingly, the data was extracted using an Excel table. Initially, articles were read at least three times to grasp a comprehensive understanding of their methodologies and findings. Next, the common

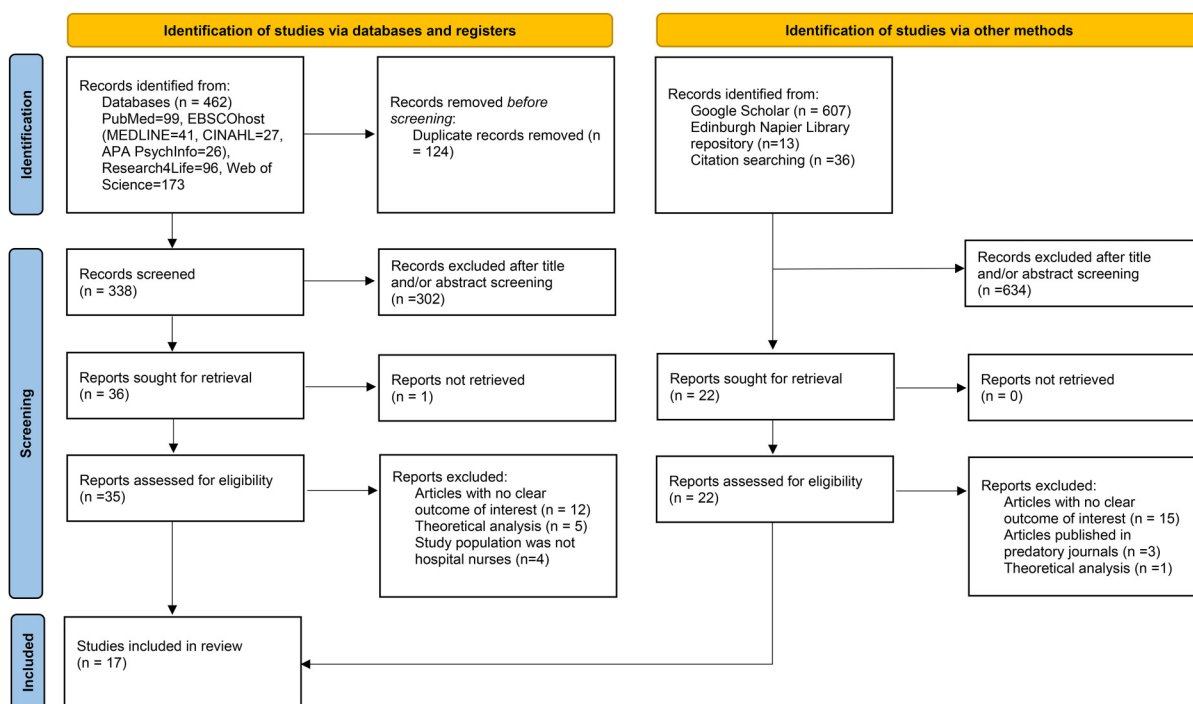


Figure 1. A PRISMA diagram showing the article selection process (Page et al., 2021).

observations and patterns in each article were identified. Basically, the authors abstracted variables that were relevant to the review question. Consequently, the authors recorded the author, year of publication, country, aim, study setting, design, sample size, and main findings of each article. Finally, the findings were synthesized according to the study characteristics and the aim of the review.

Quality Assessment

The methodological quality of the papers was evaluated using the JBI quality assessment checklists for cross-sectional studies (Appendix B).

Results

Characteristics of the Studies

The literature search generated 1,118 articles, of which 462 were from online databases and the remaining 656 were from other sources. After eliminating duplicates and evaluating titles and abstracts, the number of articles was reduced to 58. Of these, one full-text article was inaccessible after contacting the corresponding author. Subsequently, 57 articles were retrieved and fully reviewed for inclusion. Of these, 40 articles were excluded with reasons, and 17 full studies met the inclusion criteria for the review (Figure 1). These studies were conducted in Saudi Arabia ($n=3$), USA ($n=2$), Jordan ($n=2$), China ($n=1$), Malaysia ($n=1$), Turkey

($n=1$), Pakistan ($n=1$), Philippines ($n=1$), Canada ($n=1$), Italy ($n=1$), Slovakia ($n=1$), Portugal ($n=1$), and Ethiopia ($n=1$). The total sample size from these studies was 5841 nurses, ranging from 87 to 1,037, and the majority ($n=12$) of the studies were conducted in at least two or more health-care settings. With regards to study design, 16 were cross-sectional studies, while only one was mixed. Furthermore, a correlation analysis was executed in all articles to show the relationship between transformational leadership style and nurses' job satisfaction (Table 1).

Quality Appraisal of the Review

Two authors (GG, EC) evaluated, by consensus, the methodological quality of articles using the JBI quality assessment tools. The authors included studies with clear eligibility criteria, a detailed description of context, a reliable and valid measure of exposure, and an adequate statistical analysis. Accordingly, articles with scores of 8/8, 7–5/8, and less than 5/8 were labeled as high, moderate, and low quality, respectively. As a result, 13 studies were of high methodological quality because all of these papers received a “yes” rating for all relevant elements of the JBI Quality Assessment Tool (Abdelhafiz et al., 2016; Abualrub & Alghamdi, 2012; Alshahrani & Baig, 2016; Asif et al., 2019; Boamah et al., 2018; Brewer et al., 2016; Choi et al., 2016; Jankelová & Joniaková, 2021; Labrague et al., 2020; Morsiani et al., 2017; Negussie & Demissie, 2013; Othman & Khrais, 2022; Roberts-Turner et al., 2014). And, four

Table 1. Characteristics of the Studies Included in the Review.

Author (year), Country	Aim	Design, participants (sample size), setting	Variable measurement	Main outcomes	Main findings
(Quesado et al., 2022), Portugal	To assess the correlation between transformational leadership and the level of satisfaction experienced by nurses within their teams.	Cross-sectional, nurses ($n = 95$), multiple health care settings	The Global Transformational Leadership Scale and the Group Satisfaction Scale	Job satisfaction	There was a significant correlation ($r = .740, p = .000$) indicating a strong positive relationship between transformational leadership (GTL) and nurses' satisfaction with their teams (GSS). The presence of more transformational leadership behaviors was directly linked to higher levels of team satisfaction among nurses.
(Sahan & Terzioglu, 2022), Turkey	To examine how nurse managers and staff nurses perceive the transformational leadership style of nurse managers and assess the impact of this leadership style on the organizational commitment and job satisfaction of staff nurses.	Cross-sectional, 153 nurses (17 nurse managers and 136 staff nurses), 1 University hospital	The LPI: Self/observer (LPI-self/observer), the Organizational Commitment Scale and the Job Satisfaction Scale	Organizational commitment and job satisfaction	The transformational leadership practices implemented by nurse managers contributed to 9% of the overall organizational commitment ($r = .299, R^2 = .09, p < .001$) and 24% of the overall job satisfaction among staff nurses ($r = .488, R^2 = .24, p < .001$).
(Othman & Khrais, 2022), Jordan	The aim was to explore the correlation between transformational leadership, job satisfaction, and organizational commitment among nurses.	Cross-sectional, registered nurses ($n = 253$), 2 governmental hospitals	The Global Transformational Leadership scale, job satisfaction survey, and Organizational Commitment Scale	Job satisfaction and organizational commitment	A significant and positive correlation was observed between transformational leadership and job satisfaction ($r = .297, p = .000$). Additionally, a positive relationship was found between TL and organizational commitment ($r = .200, p = .001$).
(Jankeľová & Joniaková, 2021), Slovakia	To examine the connection between communication skills and the transformation style of first-line nurse managers management with the job satisfaction of nurses and to verify the influence of three moderators on the strength of this relationship	Descriptive cross-sectional, first line nurse managers ($n = 132$), 5 university hospitals	The Multifactor Leadership Questionnaire-5X Short Rater, 5-point Likert scale	Job satisfaction	The findings point to the strong direct effects of communication skills and the transformational leadership style of first-line nurse managers on nurses' job satisfaction ($\beta = 1.12, p < .05$).
(Labrague et al., 2020), Philippines	To examine the influence of toxic and transformational leadership practices on nurses'	Cross-sectional, registered nurses ($n = 770$), 15 hospitals	The 7-item Global Transformational Leadership Scale	Nurses' job satisfaction, psychological distress, absenteeism and intent to leave	Transformational leadership predicted job satisfaction ($r = .37, p < .001$) and intent to leave

(continued)

Table 1. Continued.

Author (year), Country	Aim	Design, participants (sample size), setting	Variable measurement	Main outcomes	Main findings
(Albagawi, 2019), Saudi Arabia	job satisfaction, psychological distress, absenteeism, and intent to leave the organization or the nursing profession To determine the relationship between the leadership styles of nurse managers and the job satisfaction of staff nurses in hospital settings	Descriptive correlational design, nurses ($n = 184$), 5 hospitals	Leadership Scale, the six-item JSl The Multifactor Leadership Questionnaire-5× Short Rater, 7-point Likert scale	to leave the organization or the nursing profession Job satisfaction of staff nurses	the profession ($r = -.08$, $p < .05$). The staff nurses' level of job satisfaction slightly increased ($r = .258$, $p = .000$) while nurse managers demonstrated transformational leadership.
(Asif et al., 2019), Pakistan	To examine the relationships between transformational leadership, structural empowerment, job satisfaction, nurse-assessed adverse patient outcomes, and the quality of care.	Cross-sectional, registered nurse ($n = 600$), 17 government hospitals	The 7-item Global Transformational Leadership Scale	Quality of care and patient satisfaction	Transformational leadership is a crucial to improve quality of care, nurses' job satisfaction ($r = .43$, $p < .01$) and minimize adverse patient outcomes
(Boamah et al., 2018), Canada	To investigate the effects of nurse managers' transformational leadership behaviors on job satisfaction and patient safety outcomes	Cross-sectional, acute care nurses ($n = 378$), acute care hospitals across Ontario	The Multifactor Leadership Questionnaire-5× Short Rater, the GJS questionnaire.	Job satisfaction and patient safety outcomes	Transformational leadership had a strong positive influence on workplace empowerment ($\beta = 0.77$, $p < .001$), which in turn increased nurses' job satisfaction ($\beta = 0.86$, $p < .001$) and decreased the frequency of adverse patient outcomes ($\beta = -0.35$, $p < .05$).
(Morsiani et al., 2017), Italy	To describe staff nurses' perceptions related to the leadership styles adopted by their nurse managers, identify which leadership style ensured job satisfaction in staff nurses and describe which nurse managers' behavior should change.	Mixed method, staff nurse ($n = 87$ and 3 focus group), 3 acute hospitals	The Multifactor Leadership Questionnaire-5× Short Rater	Job satisfaction	A positive correlation emerged between staff nurses' satisfaction and all dimensions of transformational leadership style.
(Abdelhafiz et al., 2016), Jordan	To explore how the leadership styles of nurse leaders affect job satisfaction among working nurses.	Cross-sectional, nurses ($n = 200$), 3 public hospitals, 3 private hospitals	The Multifactor Leadership Questionnaire-5× Short Rater, 3-point Likert scale	Nurses' job satisfaction	The increased development of transformational leadership behaviors increased nurses' job satisfaction ($r = .37$, $p < .001$).

(continued)

Table 1. Continued.

Author (year), Country	Aim	Design, participants (sample size), setting	Variable measurement	Main outcomes	Main findings
(Alshahrani & Baig, 2016), Saudi Arabia	To evaluate the effect of transformational and transactional leadership styles of head nurses on the job satisfaction of staff nurses in critical care units of a tertiary care hospital.	Cross-sectional, licensed nurses ($n = 89$), Critical care unit	The Multifactor Leadership Questionnaire-5X Short Rater, 6-point scale	Staff nurses' job satisfaction.	Nurses working under leaders with a transformational leadership style demonstrated higher job satisfaction ($R^2 = .176$, $p < .001$).
(Brewer et al., 2016), USA	To examine the effect of transformational leadership on early career nurses' intent to stay, job satisfaction and organizational commitment.	Cross-sectional, registered nurse ($n = 1037$), 51 metropolitan statistical areas and 9 rural areas in 34 US States and the District of Columbia	The Multifactor Leadership Questionnaire-5X Short Rater, 5-point Likert scale	Intent to stay, job satisfaction and organizational commitment	Transformational leadership did not show a significant correlation with nurses' intent to stay at job and job satisfaction, but significantly associated with organizational commitment
(Choi et al., 2016) Malaysia	To investigate the causal relationships among perceived transformational leadership, empowerment, and job satisfaction among nurses and medical assistants in	Cross-sectional, nursing staff ($n = 200$), 1 public and 1 private hospitals	The Multifactor Leadership Questionnaire-5X Short Rater, 5-point Likert scale	Job satisfaction of medical assistants and nurses	Transformational leadership positively influences job satisfaction ($R^2 = .46$, $p < .01$) among nurse staffs.
(Roberts-Turner et al., 2014), USA	To describe the relationship between pediatric RN-reported ratings of RN leadership characteristics (transformational and transactional leadership) and RN job satisfaction. The	Retrospective cross-sectional, pediatric RNs ($n = 935$), 1 hospital	The Multifactor Leadership Questionnaire-5X Short Rater, Job Satisfaction Scale	RN-job satisfaction	Transformational leadership style positively impacted RN's job satisfaction ($\beta = 0.069$, $p = .002$).
(Negussie & Demissie, 2013), Ethiopia	To investigate the relationship between leadership style of nurse managers and nurses' job satisfaction	Nonexperimental correlation design (cross-sectional), nurses ($n = 176$), 1 University hospital	The Multifactor Leadership Questionnaire-5X Short Rater	Job satisfaction	All the 5 dimensions of transformational leadership were found to be positively associated with both intrinsic and extrinsic job satisfactions. Intrinsic: Individual consideration ($\beta = 0.35$, $p < .01$), inspirational stimulation ($\beta = 0.31$, $p < .01$), intellectual Motive ($\beta = 0.49$, $p < .01$), idealized influence (attribute) ($\beta = 0.29$, $p < .01$), idealized influence (behavior) ($\beta = 0.32$, $p < .01$) and

(continued)

Table 1. Continued.

Author (year), Country	Aim	Design, participants (sample size), setting	Variable measurement	Main outcomes	Main findings
(Wang et al., 2012), China	To describe the relationship between the transformational leadership of nurse managers and job satisfaction among clinical Registered Nurses at a tertiary care hospital	Correlational cross-sectional, clinical Registered Nurses ($n = 250$), 1 tertiary hospital	The Chinese version of the Leadership Practice Inventory observer, NJSS	Job satisfaction	inspirational motive ($\beta = 0.49$, $p < .01$) Extrinsic: Idealized influence ($\beta = 0.21$, $p < .05$), idealized influence (behavior) ($\beta = 0.19$, $p < .05$), intellectual stimulation ($\beta = 0.42$, $p < .05$), inspirational motivation ($\beta = 0.19$, $p < .05$) and individual consideration ($\beta = 0.17$, $p < .05$) ^a A positive correlation was recorded between the transformational leadership of nurse managers and job satisfaction ($r = .556$, $p < .001$).
(Abualrub & Alghamdi, 2012), Saudi Arabia	To examine the impact of leadership styles of nurse managers on Saudi nurses' job satisfaction and their intent to stay at work.	Descriptive correlational design (cross-sectional), nurses ($n = 302$), 6 public hospitals	The MLQ-5X, Job Satisfaction Survey	Nurses' job satisfaction	A significant moderate positive correlation was observed between the transformational leadership style and nurses' job satisfaction ($r = .45$, $p < .001$) Those who were more satisfied with their jobs intended to stay at work.

Notes: LPI = Leadership Practices Inventory; GJS = Global Job Satisfaction; JSI = Job Satisfaction Index; NJSS = Nurse Job Satisfaction Scale; MLQ = Multifactor Leadership Questionnaire.

studies (Albagawi, 2019; Quesado et al., 2022; Sahan & Terzioglu, 2022; Wang et al., 2012) were of moderate methodological quality due to their limitations in having a standardized objective and, identification and management of confounding factors (Appendix B). No article was excluded based on this data evaluation rating system.

The Impact of Transformational Leadership on Nurses' Satisfaction

Seventeen articles demonstrated the association between transformational leadership style and nurses' job satisfaction. Of these, 16 articles have reported the positive influence of transformational leadership on job satisfaction of hospital nurses (Abdelhafiz et al., 2016; Abualrub & Alghamdi, 2012; Albagawi, 2019; Alshahrani & Baig, 2016; Asif et al., 2019; Boamah et al., 2018; Choi et al., 2016; Jankelová & Joniaková, 2021; Labrague et al., 2020; Morsiani et al., 2017; Negussie & Demissie, 2013; Othman & Khrais, 2022; Quesado et al., 2022; Roberts-Turner et al., 2014; Sahan & Terzioglu, 2022; Wang et al., 2012). In particular, four studies showed the presence of strong positive correlations between transformational leadership style and, extra effort, effectiveness, and satisfaction (Alshahrani & Baig, 2016; Boamah et al., 2018; Morsiani et al., 2017; Negussie & Demissie, 2013). Furthermore, in two studies, nurses who were working under managers demonstrating transformational leadership showed more job satisfaction and intent to stay at work (Abualrub & Alghamdi, 2012; Roberts-Turner et al., 2014). Relatedly, it has also been reported that a transformational leadership style can enhance job satisfaction and overall organizational commitments of nurses (Othman & Khrais, 2022; Sahan & Terzioglu, 2022). Besides the positive impact that a transformational leadership style had on nurses' job satisfaction, it also contributed to minimizing the adverse outcomes of patients (Asif et al., 2019).

On the other side, according to a study from the USA, transformational leadership style had no statistically significant impact on the intent to stay and job satisfaction of nurses but was significantly associated with organizational commitment (Brewer et al., 2016).

Discussion

The authors set out to summarize whether a transformational leadership style has an impact on nurses' job satisfaction. The authors found seventeen articles that demonstrated the relationship between transformational leadership style and nurses' job satisfaction in health care settings.

In this review, almost all the studies confirmed that transformational leadership has a positive correlation with nurses' job satisfaction. Furthermore, the studies have also reported that a transformational leadership style can enhance nurses'

intentions to stay at work, quality care, and patient outcomes. Likewise, in a related review, a transformational leadership style has had a positive correlation with work or professional satisfaction and the reduction of medication errors in the intensive care unit. More importantly, the authors also reported that a transformational leadership style indirectly influences job satisfaction by creating a motivating and cohesive work environment (Kiwanuka et al., 2021).

Despite the fact that a transformational leadership style correlates with better job satisfaction, existing evidence shows that it is rarely demonstrated by nurse managers in health care settings (Morsiani et al., 2017). This might be due to the leadership style preferences of managers and hospitals. In addition, the adoption of a transformational leadership style requires individuals with considerate and exemplary characteristics and a resourceful environment. In contrast, some other types of leadership styles can still be more effective than transformational leadership styles, especially in high-pressure work environments where a hard leadership style is required for successful task accomplishment and job satisfaction, such as in emergency and critical care departments. In such settings, according to the article published by Abdelhafiz et al. (2016), transactional leadership style is believed to have a better impact on the job satisfaction of nurses' than transformational leadership. In this case, it is understandable that the character of the transactional leadership style allows a manager to focus on taking corrective actions against staff nurses and subordinates who show poor work conduct. Therefore, in such circumstances, transactional leadership can be a better option than transformational leadership to increase task achievement, build teamwork, and increase overall nurses' job satisfaction.

The results of this review also revealed that nursing leaders, who exhibit transformational behavior have a great role in decreasing staff turnover, which may also indirectly imply the existence of nurses' job satisfaction as a mediating factor (Abdelhafiz et al., 2016; Abualrub & Alghamdi, 2012). Transformational nurse leaders can recognize and foresee the necessities of their staff nurses by establishing a good relationship and making significant efforts to fulfill their needs to encourage a sense of empowerment and autonomy that can subsequently result in job satisfaction (Asif et al., 2019). Also, related studies have inferred the contribution of transformational leadership style in decreasing nurses' turnover (Magbity et al., 2020; Pishgooie et al., 2019). Overall, the transformational leadership style contributes to higher levels of job satisfaction, which, in turn, can enhance nurses' overall well-being and performance in their roles.

Limitations

The search for literature was limited to articles published between 2010 and 2023. Furthermore, studies published in languages other than English or those not indexed in

commonly used databases may be missed. These limitations can affect the interpretation and reporting of findings.

Implications for Practice

Choosing the best leadership style could be one of the modifiable factors that a healthcare organization can do to create a conducive working environment and promote quality care (Phillips et al., 2021). In this regard, the findings of this study have highlighted the importance of a transformational leadership style in promoting hospital nurses' job satisfaction. This study can also be used as input to plan and develop future nursing leadership quality improvement initiatives in a healthcare organization. Furthermore, it contributes to the growing body of literature on nursing leadership development and training. Overall, the present review promotes the implementation of transformational leadership style in hospitals and provides a theoretical grounding for future researchers in nursing management and leadership.

Conclusion

Overall, the transformational leadership style has a positive impact on nurses' job satisfaction. Therefore, it is recommended that healthcare settings adapt a transformational leadership style for better staff job satisfaction.

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Availability of Data

All data and materials used for this work are submitted with the manuscript.

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ORCID iD

Gdiom Gebreheat  <https://orcid.org/0000-0003-1775-8216>

Supplemental Material

Supplemental material for this article is available online.

References

- Abdelhafiz, I. M., Alloubani, A. M., & Almatari, M. (2016). Impact of leadership styles adopted by head nurses on job satisfaction: A comparative study between governmental and private hospitals in Jordan. *Journal of Nursing Management*, 24(3), 384–392. <https://doi.org/10.1111/jonm.12333>
- Abualrub, R., & Alghamdi, M. (2012). The impact of leadership styles on nurses' satisfaction and intention to stay among Saudi nurses. *Journal of Nursing Management*, 20(5), 668–678. <https://doi.org/10.1111/j.1365-2834.2011.01320.x>
- Albagawi, B. (2019). Leadership styles of nurse managers and job satisfaction of staff nurses: Correlational design study. *European Scientific Journal*, 15(3), 254–275. <https://doi.org/10.19044/esj.2019.v15n3p254>
- Alshahrani, F. M., & Baig, L. A. (2016). Effect of leadership styles on job satisfaction among critical care nurses in Aseer, Saudi Arabia. *Journal of the College of Physicians and Surgeons Pakistan*, 26(5), 366–370.
- Al-Yami, M., Galdas, P., & Watson, R. (2018). Leadership style and organisational commitment among nursing staff in Saudi Arabia. *Journal of Nursing Management*, 26(5), 531–539. <https://doi.org/10.1111/jonm.12578>
- Asamani, J. A., Naab, F., & Ofei, A. M. A. (2016). Leadership styles in nursing management: Implications for staff outcomes. *Journal of Health Sciences*, 6(1), 23–36. Retrieved November 12, 2020, from <http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=2ecdbe6d-1f71-4198-bd12-d420c260a39c%40pdfviewer-sessmgr06>. <https://doi.org/10.17532/jhsci.2016.266>
- 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), 1–15. Retrieved June 10, 2021, from www.mdpi.com/journal/ijerph. <https://doi.org/10.3390/ijerph16132381>
- Boamah, S. A., Spence Laschinger, H. K., Wong, C., & Clarke, S. (2018). Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nursing Outlook*, 66(2), 180–189. <https://doi.org/10.1016/j.outlook.2017.10.004>
- Brewer, C. S., Kovner, C. T., Djukic, M., Fatehi, F., Greene, W., Chacko, T. P., & Yang, Y. (2016). Impact of transformational leadership on nurse work outcomes. *Journal of Advanced Nursing*, 72(11), 2879–2893. <https://doi.org/10.1111/jan.13055>
- Carrara, G. L. R., Bernardes, A., Balsanelli, A. P., Camelo, S. H. H., Gabriel, C. S., & Zanetti, A. C. B. (2017). Use of instruments to evaluate leadership in nursing and health services. *Revista gaucha de enfermagem*, 38(3), e2016–0060. Retrieved June 13, 2021, from <https://doi.org/10.1590/1983->
- Choi, S. L., Goh, C. F., Adam, M. B. H., & Tan, O. K. (2016). Transformational leadership, empowerment, and job satisfaction: The mediating role of employee empowerment. *Human Resources for Health*, 14(1), 1–14. <https://doi.org/10.1186/s12960-016-0171-2>
- Jankelová, N., & Joniaková, Z. (2021, September 6). 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), 346. <https://doi.org/10.3390/healthcare9030346>
- Kiwanuka, F., Nanyonga, R. C., Sak Dankosky, N., Muwanguzi, P. A., & Kvist, T. (2021). Nursing leadership styles and their impact on intensive care unit quality measures: An integrative review. *Journal of Nursing Management*, 29(2), 133–142. <https://doi.org/10.1111/jonm.13151>

- 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), 1104–1113. <https://doi.org/10.1111/jonm.13053>
- Lee, J., Lee, A., Kim, H., Shin, M., Yun, S. M., Jung, Y., Chang, W. H., & Kim, Y. H. (2019). Different brain connectivity between responders and nonresponders to dual-mode noninvasive brain stimulation over bilateral primary motor cortices in stroke patients. *Neural Plasticity*, 2019, 3826495. <https://doi.org/10.1155/2019/3826495>
- Magbity, J. B., Ofei, A. M. A., & Wilson, D. (2020). Leadership styles of nurse managers and turnover intention. *Hospital Topics*, 98(2), 45–50. Retrieved June 15, 2021, from <https://pubmed.ncbi.nlm.nih.gov/32293228/>. <https://doi.org/10.1080/00185868.2020.1750324>
- Moon, S. E., Van Dam, P. J., & Kitsos, A. (2019). Measuring transformational leadership in establishing nursing care excellence. *Healthcare (Switzerland)*, 7(4), 1–11.
- Morsiani, G., Bagnasco, A., & Sasso, L. (2017). How staff nurses perceive the impact of nurse managers' leadership style in terms of job satisfaction: A mixed method study. *Journal of Nursing Management*, 25(2), 119–128. <https://doi.org/10.1111/jonm.12448>
- Negussie, N., & Demissie, A. (2013). Relationship between leadership styles of nurse managers and nurses' job satisfaction in Jimma University specialized hospital. *Ethiopian Journal of Health Sciences*, 23(1), 49–58. Retrieved September 6, 2021, from <https://pmc/articles/PMC3613815/>
- 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), 304–309. <https://doi.org/10.35975/apic.v26i3.1896>
- Page, M. J., Moher, D., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., & Chou, R. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *The BMJ*, 372, 1–6. <https://doi.org/10.1136/bmj.n160>
- Phillips, L. A., de Los Santos, N., & Jackson, J. (2021). Licenced practical nurses' perceptions of their work environments and their intention to stay: A cross-sectional study of four practice settings. *Nursing Open*, 8(6), 3299–3305. <https://doi.org/10.1002/nop2.1046>
- Pishgooie, A. H., Atashzadeh Shoorideh, F., Falcó Pegueroles, A., & Lotfi, Z. (2019). Correlation between nursing managers' leadership styles and nurses' job stress and anticipated turnover. *Journal of Nursing Management*, 27(3), 527–534. Retrieved November 12, 2020, from <https://onlinelibrary.wiley.com/doi/abs/10.1111/jonm.12707>. <https://doi.org/10.1111/jonm.12707>
- Poels, J., Verschuere, M., Milisen, K., & Vlaeyen, E. (2020). Leadership styles and leadership outcomes in nursing homes: A cross-sectional analysis. *BMC Health Services Research*, 20(1009), 1–10. <https://doi.org/10.1186/s12913-020-05854-7>
- Quesado, A. J., Estanqueiro, M., Barnabé Melo, M., & Oliveira, I. d. J. (2022). Transformational leadership and nurses' satisfaction with their team: A cross-sectional study. *Nursing Practice Today*, 9(3), 243–250.
- Roberts-Turner, R., Hinds, P. S., Nelson, J., Pryor, J., Robinson, N. C., & Wang, J. (2014). Effects of leadership characteristics on pediatric registered nurses' job satisfaction. *Pediatric Nursing*, 40(5), 236–256.
- Sahan, F., & Terzioglu, F. (2022). Transformational leadership practices of nurse managers: The effects on the organizational commitment and job satisfaction of staff nurses. *Leadership in Health Services*, 35(4), 494–505. <https://doi.org/10.1108/LHS-11-2021-0091>
- Sfantou, D. F., Laliotis, A., Patelarou, A. E., Sifaki-Pistolla, D., Matalliotakis, M., & Patelarou, E. (2017). Importance of leadership style towards quality of care measures in healthcare settings: A systematic review. *Healthcare*, 5(4), 1–17. Retrieved June 12, 2021, from www.mdpi.com/journal/healthcare. <https://doi.org/10.3390/healthcare5040073>
- Suliman, M., Almansi, S., Mrayyan, M., ALBashtawy, M., & Aljezawi, M. (2020). Effect of nurse managers' leadership styles on predicted nurse turnover. *Nursing Management*, 27(5), 23–28. <http://dx.doi.org/10.7748/nm.2020.e1928>
- Wang, X., Chontawan, R., & Nantsupawat, R. (2012). Transformational leadership: Effect on the job satisfaction of registered nurses in a hospital in China. *Journal of Advanced Nursing*, 68(2), 444–451. <https://doi.org/10.1111/j.1365-2648.2011.05762.x>
- Whittemore, R., & Knaf, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing*, 52(5), 546–553. <https://doi.org/10.1111/j.1365-2648.2005.03621.x>