



## NURSE MANAGEMENT AND LEADERSHIP PRACTICES IN HOSPITALS: A SYSTEMATIC REVIEW

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### ABSTRACT

Nurse management and leadership play a critical role in shaping nurses' work environments, patient safety, and organizational performance in hospital settings. In recent years, there has been a growing shift from traditional hierarchical management toward more relational and clinically oriented leadership practices. However, empirical evidence regarding dominant leadership styles, associated outcomes, and remaining research gaps remains dispersed across the literature. This systematic review aimed to synthesize existing evidence on nurse management and leadership practices in hospital settings, with a focus on dominant leadership styles, reported outcomes, and identified research gaps. A systematic review was conducted following the PRISMA 2020 guidelines. Literature searches were performed in PubMed/MEDLINE, Scopus, and CINAHL databases. A total of 524 articles were initially identified. After removal of duplicates and screening of titles and abstracts, 45 articles were assessed for full-text eligibility. Ten studies met all inclusion criteria and were included in the final synthesis. Data were analyzed using a narrative thematic approach. The synthesis revealed three main themes. First, transformational leadership emerged as the most frequently examined leadership style in nurse management, with increasing attention to clinical leadership among bedside nurses. Second, leadership practices were associated with nurse-related outcomes (work engagement, reduced burnout, and job performance), patient-related outcomes (quality of care, patient safety, and satisfaction), and organizational outcomes (innovative work behavior and reduced counterproductive behaviors). Third, several research gaps were identified, including the predominance of cross-sectional designs, reliance on self-reported measures, limited multicultural perspectives, and insufficient evidence on the long-term impact of leadership during and after healthcare crises such as the COVID-19 pandemic. Evidence from this systematic review indicates that relational and transformational leadership practices are consistently associated with positive outcomes for nurses, patients, and healthcare organizations in hospital settings. Strengthening leadership development and advancing longitudinal and intervention-based research are essential to better understand causal mechanisms and support sustainable improvements in nursing management and leadership.

Keywords: hospital; nurse management; nursing leadership; nursing outcomes; systematic review

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## INTRODUCTION

Nurse management and leadership are key components of hospital governance that directly impact service quality, patient safety, and organizational performance. As front-line leaders, nurse managers play a strategic role in coordinating services, managing resources, supporting staff performance, and translating organizational policies into daily clinical practice. Managerial nurses' close relationship with patients and the healthcare team places them in a crucial position to shape the work environment, influence professional behavior, and build a culture of safety and quality care (Hommel et al., 2020; O' Keeffe et al., 2020).

The concepts of leadership and management in nursing are often used interchangeably, although they have different focuses. Leadership is generally understood as the ability to influence, motivate, and inspire individuals or teams to achieve common goals, while management emphasizes the functions of planning, organizing, coordinating, and controlling resources to achieve organizational goals (WHO, 2020). In the hospital context, nurse managers are required to integrate both roles simultaneously. Various leadership styles, such as transformational, transactional, authentic, and

servant leadership, have been widely studied in nursing and are associated with staff engagement, job satisfaction, and service performance (McCarthy et al., 2020; Zaghini et al., 2020a). This suggests that nurse leadership is not solely related to administrative competencies but also encompasses relational, ethical, and contextual dimensions.

From a nursing and organizational theory perspective, nurse management and leadership practices are not only determined by individual competencies but are also influenced by structural and contextual factors, such as organizational culture, assignment models, workload, and characteristics of the healthcare system. Relational leadership approaches and complex systems theory emphasize that leadership in healthcare is a dynamic process occurring within a complex, adaptive system (Välimäki et al., 2021). Within this framework, nurse managers act as liaisons who facilitate communication, support professional autonomy, and enable adaptive responses to clinical and organizational challenges. Research indicates that leadership practices that promote empowerment, shared decision-making, and supportive supervision are associated with increased job satisfaction, teamwork, and quality of nursing care (den Breejen-de Hooge et al., 2021; Martinez Rogers et al., 2021).

Although the importance of nurse management and leadership is widely recognized, implementing effective leadership practices in hospitals still faces various challenges. Nurse managers often face competing demands, such as staffing shortages, high administrative burdens, limited resources, and accountability for quality and patient safety indicators. These conditions can limit opportunities for leadership development, reflection on practice, and meaningful engagement with staff, ultimately reducing leadership effectiveness (Ghafourifard et al., 2022). Furthermore, variations in preparation for managerial roles, differences in role expectations across health systems, and uneven organizational support contribute to inconsistencies in leadership practices across hospital contexts (Conroy et al., 2023; Jefferies et al., 2022).

While empirical research on nurse management and leadership continues to grow, the available scientific evidence remains fragmented and diverse. These studies employ different research designs, examine various leadership models, and assess a wide range of outcomes, ranging from nurse-related outcomes (such as job satisfaction, engagement, and turnover intentions), patient outcomes (quality and safety of care), to organizational performance (Ghafourifard et al., 2022; Pakizekho & Barkhordari-Sharifabad, 2022). This diversity makes it difficult to formulate comprehensive conclusions and consistent, evidence-based recommendations for hospital managers, nursing leaders, and policymakers.

Therefore, a systematic review is needed to synthesize existing scientific evidence regarding nurse management and leadership practices in hospitals. This systematic review aims to (1) identify the types of nurse management and leadership practices reported in research in hospital settings, and (2) examine the outcomes related to these practices for nurses, patients, and healthcare organizations. The results of this review are expected to provide a scientific basis for the development of nursing leadership, improvement of managerial practices, and the formulation of policies that support improved hospital performance.

## **METHOD**

### **Study Design**

This study used a systematic review design to identify and synthesize scientific evidence regarding nurse management and leadership practices in hospitals and related outcomes. The systematic review reporting process was structured and reported following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines to ensure transparency and rigor in the study search, selection, and reporting process (Page et al., 2021).

### **Literature Search Strategy**

A systematic literature search was conducted in the electronic databases PubMed/MEDLINE, Scopus, and CINAHL. Included articles were limited to publications published between 2011 and 2025, written in English or Indonesian. The search strategy was developed based on the research question by combining keywords and synonyms related to the nursing population, nursing management and leadership practices, and relevant outcomes. The Boolean operators “AND” and “OR” were used to broaden the search scope without compromising relevance. Search terms included keywords representing nurses and managerial roles (e.g., nurse, staff nurse, nurse manager, head nurse, charge nurse), management and leadership concepts (e.g., nurse management, nursing leadership, leadership practices, management practices, transformational leadership, transactional leadership, authentic leadership, servant leadership), and related outcomes (e.g., job satisfaction, work engagement, turnover intention, quality of care, patient safety, organizational performance, teamwork). The search strategy was tailored to the format and characteristics of each database. In addition to the database search, additional searches were conducted by reviewing the bibliographies of articles meeting the criteria to identify additional relevant studies.

### **Inclusion and Exclusion Criteria**

Inclusion criteria were established using the PICOS framework. The population (P) included nurses working in the hospital, including nurse practitioners and nurse managers (e.g., ward heads, nursing managers, or unit leaders). The intervention or exposure (I) consisted of nurse management and/or leadership practices in the hospital setting, including various leadership styles and approaches. The comparator (C) could be a comparison group, a different leadership approach, or a non-comparative design that still reports the relationship between leadership/management practices and outcomes. Outcomes (O) included nurse-related outcomes (e.g., job satisfaction, engagement, retention, performance), patient outcomes (e.g., quality and safety of care), and organizational outcomes (e.g., teamwork, work climate, unit performance). Accepted study designs (S) were original research with a quantitative, qualitative, or mixed methods approach. Studies were excluded if they were not conducted in a hospital setting, did not involve nurses as the primary subjects, did not address nurse management or leadership practices, or were non-original articles such as literature reviews, editorials, opinion pieces, protocols, case reports, and conference abstracts without full text.

### **Study Selection and Data Extraction**

All search results were compiled and duplicates removed using a reference management tool. The study selection process was conducted in two stages by two independent reviewers. The first stage involved screening titles and abstracts to assess initial compliance with the inclusion criteria. The second stage involved a full-text review to ensure appropriateness of the population, hospital context, focus of management or leadership practices, and availability of outcome data. Disagreements between reviewers were resolved through discussion until consensus was reached. Data from studies that met the criteria were extracted using a standardized data extraction form that included: study identity (author, year of publication, country), setting and type of hospital, study design, sample characteristics, type of management or leadership practices studied, measurement instruments, reported outcomes, and a summary of key findings.

### **Data Synthesis**

Data synthesis was conducted descriptively using a narrative synthesis approach, considering variations in study design, types of leadership and management practices, hospital contexts, and differences in instruments and outcome indicators used. Results are presented by summarizing study characteristics and key findings by category of nurse leadership and management practices, as well as related outcomes at the nurse, patient, and organizational levels.

## RESULT

A total of 524 articles were identified through searches of PubMed/MEDLINE, Scopus, and CINAHL databases. After deduplication, 87 articles were excluded, leaving 437 articles for title and abstract screening. At this stage, 392 articles were eliminated because they were not relevant to nurse management and leadership practices, were not conducted in a hospital setting, or were not original research. After screened abstract and title, 20 articles excluded. A total of 25 articles were then selected for full-text review. Of these, 15 articles were excluded because they did not meet the inclusion criteria, primarily because the study design was inappropriate, the study focus did not directly address nurse management or leadership practices, or the reported outcomes were irrelevant. Ultimately, 10 articles met all inclusion criteria and were included in this systematic review. The complete study selection process is presented in the PRISMA flowchart (Figure 1), and the characteristics of the included studies are summarized in Table 1.

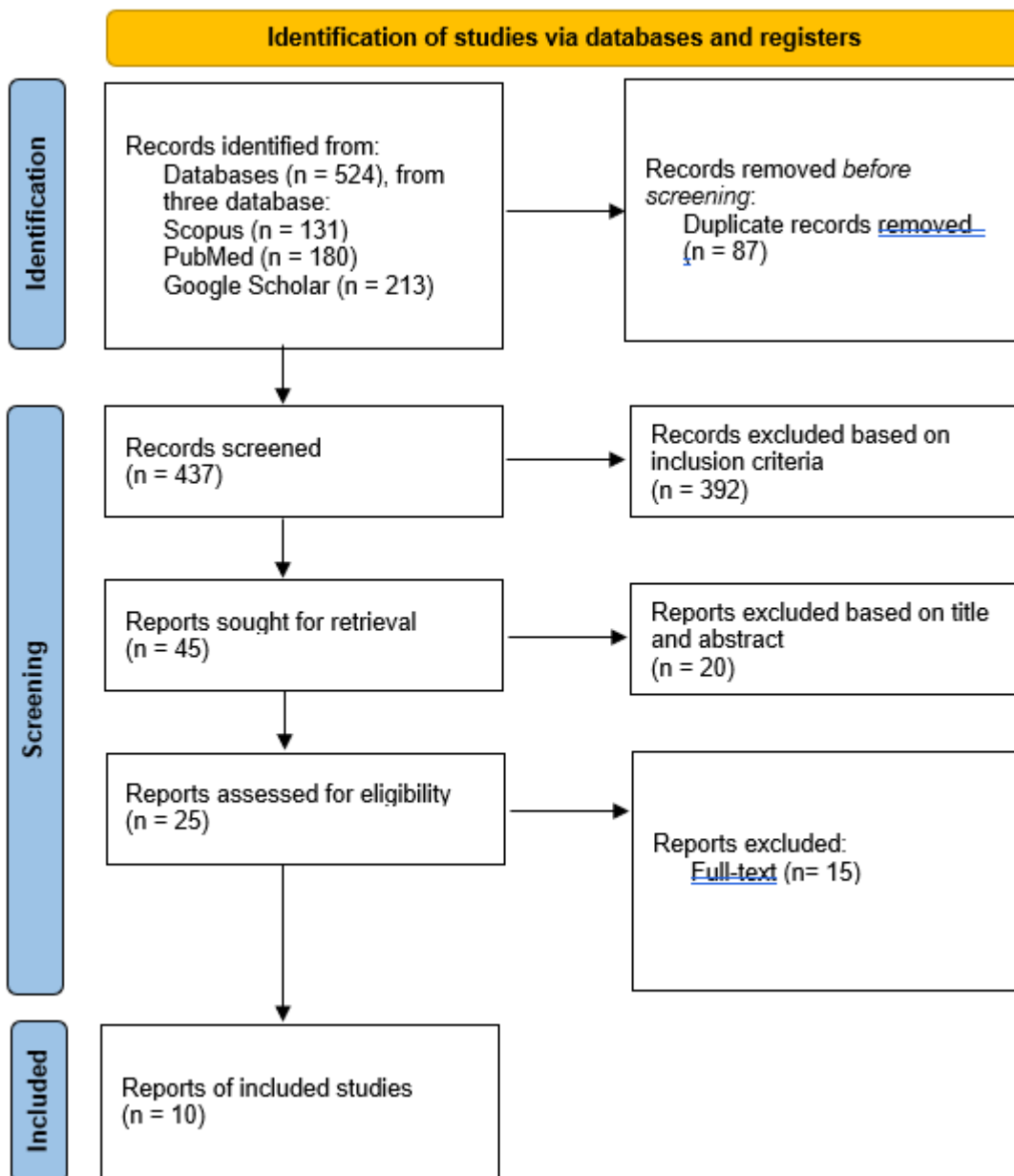


Figure 1. PRISMA Flow Diagram

Overall, the literature analyzed indicates a shift in focus from an administrative and hierarchical approach to nursing management toward more relational, clinical, and team-oriented leadership

practices. The synthesis results are grouped into three main themes: (1) dominant leadership styles in hospital nursing management, (2) outcomes related to nurse leadership practices, and (3) remaining research gaps in the existing scientific evidence.

### **1. Leadership Style**

Based on the available literature, transformational leadership is the most dominant style studied in the context of nursing management (Alharbi et al., 2021; Bush et al., 2020; Nurmeksela et al., 2025). This style is often assessed using the Leadership Practices Inventory (LPI), which encompasses five key domains: Modeling the Way, Inspiring a shared vision, Challenging the process, Empowering others to act, and Encouraging the Heart (Alharbi & Almansour, 2025; Kouzes & Posner in Yeneget et al., 2025). Furthermore, there has been a shift in focus toward clinical leadership by bedside nurses (Xue et al., 2025). Unlike administrative leadership, clinical leadership emphasizes the use of clinical expertise to directly influence teams and improve patient outcomes (Boutin et al., 2024; Xue et al., 2025). Several studies have also compared transactional and passive-avoidant leadership styles to demonstrate that these styles are less effective in improving performance than transformational leadership (Chairun et al., 2022; Bush et al., 2020).

### **2. External**

The results of the analysis show that research outputs can be grouped into three main categories: nurses, patients, and organizations. Nurses' Well-Being and Work Engagement: The most common outcome is work engagement, measured by vigor, dedication, and absorption (Nurmeksela et al., 2025; Xue et al., 2025). Effective leadership has consistently been shown to reduce burnout, emotional exhaustion, and interpersonal tension among staff (Zaghini et al., 2020; Nurmeksela et al., 2025). Quality of Care and Patient Satisfaction: Nurse managers' leadership styles significantly impact patients' perceptions of the quality of care (Zaghini et al., 2020). Strong leadership is associated with improved patient safety, reduced adverse events, and increased patient satisfaction (Xue et al., 2025; Boutin et al., 2024). Work Behavior and Performance: Research has also assessed the influence of leadership on nurses' job performance (Chairun et al., 2022) and the emergence of innovative work behaviors (Yeneget et al., 2025). Conversely, poor leadership can trigger counterproductive work behaviors, such as carelessness or absenteeism (Zaghini et al., 2020).

### **3. Gaps**

Although research on nurse leadership is quite extensive, several key gaps remain identified: Research Design Limitations: The majority of studies used a cross-sectional design, meaning the relationships found are correlational and cannot establish definitive cause-and-effect relationships (Yeneget et al., 2025; Xue et al., 2025; Alharbi et al., 2021). Longitudinal studies are needed to examine the development of leadership impacts over time (Boutin et al., 2024; Nurmeksela et al., 2025). Self-Reporting Bias: Many studies rely heavily on self-report questionnaires, which are susceptible to social desirability bias (Bush et al., 2020; Xue et al., 2025). Significant discrepancies are often found between managers' self-assessments and nurses' perceptions of them (Alharbi et al., 2021). Lack of Collective and Multicultural Perspectives: There is limited research exploring leadership from a holistic collective or team perspective (Boutin et al., 2024). Furthermore, most evidence comes from regional medical centers or a single region, so generalizability of findings to different cultural contexts or health systems is limited (Alharbi & Almansour, 2025; Nurmeksela et al., 2025). Long-Term Impact of the Crisis: While there are studies on management performance during the COVID-19 pandemic, further research is needed on how the impact of this crisis changes the leadership structure of nurses in the long term (Huerta-González et al., 2024; Boutin et al., 2024).

Table 1.  
Extraction Data

No	Authors, Year	Purpose	Design	Samples	Variables	Key Results
1	(Zaghini et al., 2020b)	Testing the relationship model between nurse manager leadership style and patient perceptions of quality of care through the mediation of work environment quality.	Multi-centre cross-sectional study.	479 registered nurses and 829 patients in 5 hospitals in Italy.	Leadership style, quality of work environment (burnout, interpersonal tension, counterproductive work behavior), patient perception of care.	Nurses who are satisfied with leadership feel less burnout, engage in less misconduct, and patients are more satisfied with the quality of care.
2	(Yeneget et al., 2025)	Assessing nurses' perceptions of their managers' leadership practices and the factors influencing them.	Cross-sectional study.	403 nurses at Jimma Town public health facility, Ethiopia.	Managers' perceptions of leadership, leadership training, organizational commitment, innovative work behavior, job stress.	Less than a third of nurses had a high perception of their managers. Organizational commitment and innovative behavior had a positive effect, while job stress had a negative effect.
3	(Xue et al., 2025)	Exploring the relationship between clinical leadership and work engagement on quality of care.	Cross-sectional design.	1,029 staff nurses from 20 hospitals in Shandong Province, China.	Clinical leadership, work engagement, quality of care.	Clinical leadership has a direct and indirect effect on the quality of care through the mediation of work engagement (mediation proportion 37.56%).
4	(A. Alharbi et al., 2021)	Understanding the situational profile of transformational leadership practices of clinical nurse managers in Saudi hospitals.	Descriptive cross-sectional study.	29 clinical nurse managers and 318 registered nurses (RNs) in 3 Saudi Arabian hospitals.	Transformational leadership practices (LPI domains), demographic and professional characteristics.	Managers rated their leadership performance higher than staff nurses. Managers' work experience was positively related to the "enabling others to act" domain.
5	(Pepin & Brault, 2025)	Describes the implementation of clinical leadership by nurses, influencing factors, and perceptions of its impact.	Qualitative multiple case study.	36 nurses (managers, advanced practice nurses, charge nurses) in the medical-surgical unit	Forms of clinical leadership, supporting/inhibiting factors, perceived impact (on patients, nurses, teams, organizations).	Clinical leadership manifests itself in five forms: reflective initiative, coaching, quality improvement, team cohesion,

				of a university hospital center, Quebec.		and collaborative capacity. It positively impacts patient safety and job satisfaction.
6	(Nurmeksela et al., 2025)	Describes nurses' evaluation of work engagement and their perceptions of managers' transformational leadership.	Cross-sectional descriptive study.	154 nursing staff at the central hospital in Eastern Finland.	Transformational leadership, work engagement (vigor, dedication, absorption).	Managers' transformational leadership is significantly related to nurses' work engagement \$(r = 0.367)\$.
7	(Ramadhan Chairun et al., 2024)	Testing the influence of transactional and transformational leadership styles of ward heads on the performance of implementing nurses.	Associative quantitative with descriptive correlational design.	130 inpatient and ICU nurses at Royal Prima Hospital Medan.	Transactional leadership style, transformational leadership style, nurse performance (job performance).	Transactional and transformational leadership styles have a positive and significant influence on nurse performance.
8	(Bush et al., 2020)	Examining perceptions of leadership styles, leadership outcomes, and self-efficacy among nurse leaders.	Hospital-based survey (cross-sectional).	23 nurse leaders (managers, clinical supervisors, directors) at a US regional medical center.	Leadership style (transformational, transactional, passive-avoidant), leadership outcomes, self-efficacy.	The majority have a transformational style, but the lowest scores are in the areas of communication and self-confidence. Leader self-efficacy is perceived as low.
9	(Huerta-González et al., 2024)	Investigating frontline nurses' perceptions of manager and senior management performance during the COVID-19 pandemic.	Qualitative study (descriptive phenomenological approach).	14 clinical nurses in the inpatient unit or ICU in Spain.	Performance of managers and senior management, resource management, institutional support.	Nurse managers (supervisors) were seen as performing better due to their closeness and empathy, while senior management was seen as lacking foresight and causing organizational chaos.
10	(S. M. Alharbi & Almansour, 2025)	Assessing the leadership behaviors and practices of nurse managers in the Riyadh Second Health Cluster.	Cross-sectional quantitative study.	342 nurse managers in Riyadh, Saudi Arabia.	Leadership practices (Model the Way, Inspire vision, Challenge process, Enable others, Encourage heart), demographics.	Nurse managers reported very high levels of leadership practices across all domains (Mean M = 4.57). There were significant differences based on gender and nationality.

## **DISCUSSION**

This systematic review synthesizes ten original studies examining nurse management and leadership practices in hospitals and their associations with various outcomes at the nurse, patient, and organizational levels. Overall, the findings demonstrate a consistent pattern that relational leadership practices, particularly transformational and clinical leadership, are associated with more positive outcomes than transactional or passive-avoidant leadership approaches (Kwame & Petrucka, 2024). These results emphasize that the nurse manager's role is not merely that of an administrator, but rather that of a change agent shaping the work environment, safety culture, and overall service performance.

In terms of leadership styles, the dominance of transformational leadership in the literature reflects a paradigm shift in nursing management from a control-based approach to one based on empowerment and inspiration (González García et al., 2025). The five key domains in the Leadership Practices Inventory—modeling the way, inspiring a shared vision, challenging the process, enabling others to act, and encouraging the heart—are consistently associated with increased work engagement, job satisfaction, and nurse performance (Kamaryati et al., 2024). This aligns with transformational leadership theory, which emphasizes the importance of meaningful work, trust, and intrinsic motivation in complex organizational contexts like hospitals. These findings reinforce the argument that effective nurse leadership focuses not only on achieving operational targets but also on developing individual and team capacity (Mushy et al., 2024).

In addition to transformational leadership, the growing attention to clinical leadership demonstrates the recognition that leadership in nursing is not always structural or position-based (Russell et al., 2025). Clinical leadership exercised by nurses in direct-care settings emphasizes the use of clinical expertise, professional role modeling, and informal influence to improve patient outcomes (Wongso et al., 2024). This distinction is important because it demonstrates that improving the quality of care depends not only on managerial decisions at the top level but also on nurses' ability to lead in everyday clinical situations (Schlicht et al., 2025). Thus, nurse leadership can be understood as a multidimensional phenomenon that occurs at various levels of the organization.

Regarding outcomes, the results of this review indicate that the most consistent impact of nurse leadership is seen in nurses' well-being and work engagement. Effective leadership correlates with higher levels of work engagement and reduced burnout and emotional exhaustion. These findings are relevant in the context of the global nursing workforce crisis, where nurse retention and well-being are strategic issues for hospitals (Hamada et al., 2024). Supportive and empowering leadership appears to serve as a protective factor, helping nurses cope with work pressure and the complexity of care (Crawford et al., 2015).

The impact of nurse leadership extends to the patient and organizational levels. Several studies have shown that nurse managers' leadership styles influence patient perceptions of care quality, patient safety, and service satisfaction (Mramel et al., 2025). This relationship can be understood through an indirect mechanism, where effective leadership creates a conducive work environment, improves team coordination, and strengthens adherence to practice standards (Azzellino et al., 2025; Crawford et al., 2015). At the organizational level, nurse leadership is associated with improved performance, the emergence of innovative work behaviors, and a decrease in counterproductive work behaviors (Alharthi, 2020). These findings support the view that nursing leadership is a critical component of overall hospital system performance.

However, this review also identified several methodological limitations in the existing literature. The majority of studies used cross-sectional designs, so the relationships found were correlational and did not allow for causal conclusions. Furthermore, reliance on self-report instruments increases the risk of perceptual bias and social desirability bias, particularly when nurse managers assess their

own leadership practices (Rhee et al., 2020; Yang et al., 2020). The discrepancies between managers' assessments and nurses' perceptions found in some studies underscore the importance of using more diverse data sources in leadership research.

Another prominent gap is the limited collective and contextual perspectives in nurse leadership research. Most studies focus on individual leaders, while team leadership dynamics, interprofessional interactions, and the influence of organizational culture remain relatively underexplored (Abou Ramadan & Eid, 2020; Seljemo et al., 2020). Furthermore, the predominance of studies from specific regions or health systems limits the generalizability of findings to different cultural and organizational contexts. This becomes even more relevant in the post-COVID-19 pandemic context, where work structures, leadership burdens, and expectations for nurse managers have undergone significant changes.

The practical implications of the findings of this systematic review emphasize the importance of ongoing and contextualized nurse leadership development. Hospitals need to invest in leadership development programs that focus not only on managerial skills but also on strengthening transformational and clinical leadership. Furthermore, organizations need to create support systems that enable nurse managers to reflect, feedback, and continuously learn as they carry out their leadership roles. For future research, more longitudinal and intervention studies are needed that evaluate the impact of nurse leadership practices over time, with more consistent and standardized outcomes. Future research should also more comprehensively integrate team and organizational perspectives, and consider broader cultural and health system factors. This will ensure the resulting scientific evidence is more robust and relevant to support effective and sustainable nursing management policies and practices.

## **CONCLUSION**

This systematic review shows that nurse management and leadership practices in hospitals, particularly transformational leadership and clinical leadership, are consistently associated with more positive outcomes at the nurse, patient, and organizational levels. Evidence from the ten studies analyzed demonstrates a relatively consistent direction: relational, empowering, and team-oriented leadership contributes to improved work engagement, nurse well-being, quality of care, patient safety, and organizational performance. Furthermore, the findings of this review confirm that the effectiveness of nurse leadership is determined not only by formal leadership style, but also by the leader's ability to facilitate a supportive work environment, encourage staff participation, and integrate clinical expertise into the decision-making process. However, most of the available evidence is correlational and relies heavily on self-reports, requiring caution in interpreting causal relationships. Therefore, it is recommended that nurse leadership development be carried out in a sustainable and contextual manner, accompanied by long-term evaluation and a more robust research approach, to ensure that nurse management and leadership practices can have a sustainable impact on the quality of hospital services.

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