

SYSTEMATIC REVIEW

## Leading with Care: The Influence of Caring Leadership on Nurses' Caring Behavior and Patient Satisfaction in Hospital Settings. A systematic Review

### Liderar con cuidado: La influencia del liderazgo compasivo en el comportamiento de cuidado de las enfermeras y la satisfacción de los pacientes en entornos hospitalarios. Una revisión sistemática

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#### ABSTRACT

**Introduction:** patient satisfaction reflects the quality of nursing care in terms of professionalism, compassion, and responsiveness. It depends more on nurses' caring behaviors and leadership support than on clinical outcomes. Declining satisfaction and inconsistent caring practices highlight the impact of staff shortages and poor leadership. Evidence on the integration of caring leadership, caring behaviors, and satisfaction remains limited in Indonesia, prompting this review to strengthen culturally relevant nursing leadership and healthcare quality in the country.

**Method:** a systematic review based on the PRISMA framework included four stages: identification, screening, eligibility, and inclusion. Databases searched were PubMed, ScienceDirect, and Wiley Online Library with the keywords "patient satisfaction", "caring behavior," and "caring leadership." Eligible articles were full-text studies (2019-2023) in nursing and health professions available in Open Access or Open Archive. Data were managed using Mendeley, and thematic analysis was performed.

**Results:** twenty-five studies were included. Patient satisfaction was shaped by responsiveness, empathy, and reliability, which aligned with the WHO quality indicators. Caring behaviors are correlated with engagement, job satisfaction, resilience, and leadership style. Caring leadership, marked by empathy, support, and inspiration, enhances nurses' caring behaviors and patient satisfaction across diverse hospital settings.

**Conclusions:** this review affirms the central role of caring leadership in shaping nurses' caring behaviors and improving patient satisfaction. The implementation of culturally adapted caring leadership models in Indonesian hospitals is recommended to address regional disparities, improve nurses' well-being, and enhance the quality of care. Future research should examine the long-term impacts of these models on patient satisfaction and healthcare performance across diverse settings.

**Keywords:** Caring Leadership; Nursing Care; Nurses' Caring Behaviors; Nurse-Patient Interaction; Patient Satisfaction; Hospital Nursing Service.

## RESUMEN

**Introducción:** la satisfacción del paciente refleja la calidad del cuidado de enfermería a través del profesionalismo, la compasión y la capacidad de respuesta. Depende más de las conductas de cuidado de las enfermeras y del apoyo del liderazgo que de los resultados clínicos. La disminución de la satisfacción y las prácticas de cuidado inconsistentes evidencian el impacto de la escasez de personal y del liderazgo débil. En Indonesia, la evidencia sobre la integración del liderazgo compasivo, las conductas de cuidado y la satisfacción del paciente sigue siendo limitada. Esta revisión aborda esa brecha para fortalecer un liderazgo de enfermería culturalmente relevante y mejorar la calidad asistencial.

**Método:** se realizó una revisión sistemática basada en el marco PRISMA que incluyó cuatro etapas: identificación, cribado, elegibilidad e inclusión. Las búsquedas se efectuaron en PubMed, ScienceDirect y Wiley Online Library con las palabras clave “patient satisfaction”, “caring behavior” y “caring leadership”. Los artículos elegibles fueron estudios en texto completo (2019-2023) del ámbito de enfermería y profesiones de la salud, disponibles en acceso abierto o archivo abierto. Los datos se gestionaron en Mendeley y se realizó un análisis temático.

**Resultados:** se incluyeron veinticinco estudios. La satisfacción del paciente estuvo determinada por la capacidad de respuesta, la empatía y la fiabilidad, en consonancia con los indicadores de calidad de la OMS. Las conductas de cuidado se relacionaron con la implicación laboral, la satisfacción profesional, la resiliencia y el estilo de liderazgo. El liderazgo compasivo, caracterizado por la empatía, el apoyo y la inspiración, mejoró tanto las conductas de cuidado de las enfermeras como la satisfacción del paciente en distintos entornos hospitalarios.

**Conclusiones:** la revisión confirma el papel central del liderazgo compasivo en la formación de las conductas de cuidado y en la mejora de la satisfacción del paciente. Se recomienda implementar modelos de liderazgo adaptados culturalmente en los hospitales indonesios para reducir las desigualdades regionales, mejorar el bienestar del personal de enfermería y fortalecer la calidad del cuidado. Futuras investigaciones deberían analizar los efectos a largo plazo de estos modelos sobre la satisfacción del paciente y el rendimiento sanitario en diversos contextos.

**Palabras clave:** Liderazgo Compasivo; Cuidado de Enfermería; Conductas de Cuidado de las Enfermeras; Interacción Enfermera-Paciente; Satisfacción del Paciente; Servicios de Enfermería Hospitalaria.

## INTRODUCTION

Patient satisfaction is a fundamental indicator of healthcare quality, reflecting how well care meets the expectations of professionalism, attentiveness, and compassion.<sup>(1,2,3)</sup> Historically, the concept evolved from a focus on clinical outcomes to a multidimensional perspective that emphasizes patient experience and humanistic care. Despite its importance, studies continue to report dissatisfaction with it.<sup>(4,5)</sup> In Croatia and Sweden, poor communication and unprofessional behavior remain key causes of dissatisfaction, while in the United Kingdom, satisfaction with the National Health Service dropped to 29 % in 2022 due to staff shortages and system inefficiencies. The COVID-19 pandemic further intensified these problems, exacerbating nursing shortages and emphasizing the need for strong and compassionate leadership.<sup>(6)</sup>

As the largest healthcare workforce, nurses play a central role in ensuring quality care and patient satisfaction. Nursing professionalism requires not only technical and intellectual competence but also caring behaviors that reflect empathy, dignity, and person-centered values.<sup>(7,8,9,10,11)</sup> However, these behaviors are not consistently observed. Studies have reported that patient satisfaction with caring behaviors varies by 63,9 % in Turkey and 55,15 % in Ethiopia, and nurses often rate their own caring behaviors higher than patients do. Research in the Philippines, Canada, and the United States has identified engagement, job satisfaction, workload, and leadership as key factors influencing caring behaviors. A lack of participative leadership is linked to nurse disengagement and global productivity losses exceeding USD 483 billion annually. Leadership, particularly caring leadership, fosters empathy, trust, and a supportive work culture that strengthens nurses' motivation and caring performance.<sup>(12,13,14)</sup> Leaders who demonstrate compassion reduce burnout and improve patient experiences. Although global evidence confirms the benefits of caring leadership, its application in Indonesia remains limited.<sup>(15,16)</sup> Cultural diversity, leadership gaps, and uneven management systems contribute to variations in nurses' caring behaviors and patient satisfaction. This study addresses the need to consolidate evidence on how caring leadership influences nurses' caring behaviors and patient satisfaction in hospitals. Understanding this relationship is essential for designing culturally relevant leadership strategies that enhance nurses' well-being, promote compassion, and improve healthcare quality. Therefore, this systematic review aims to analyze and synthesize empirical evidence on the influence of caring leadership on nurses' caring behaviors and patient satisfaction in hospitals, providing theoretical and practical insights to strengthen nursing

leadership and patient-centered care.

## METHOD

This study employed a systematic literature review to analyze the influence of caring leadership on nurses' caring behaviors and patient satisfaction in hospitals. This review aimed to consolidate empirical evidence published in peer-reviewed journals and identify patterns, gaps, and implications for improving nursing leadership and healthcare quality. The focus and scope of this review were limited to studies in the fields of nursing and health professions that specifically examined caring leadership as a factor influencing caring behavior and patient satisfaction. The review process followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, which includes four stages: identification, screening, eligibility, and inclusion. The literature search was conducted between August and September 2024 through electronic databases accessible via the National Library of Indonesia's e-resources, including PubMed, ScienceDirect, and the Wiley Online Library. A combination of keywords and Boolean operators was used to develop the search strategy: "patient satisfaction," "caring behavior," and "caring leadership," along with related terms such as "nursing care quality," "leadership style," and "nurse-patient interaction." Eligible articles met the following criteria: full-text empirical research published between 2019 and 2023, written in English, available through Open Access or Open Archive, and focused on the relationship between caring leadership, caring behaviors, and patient satisfaction. Excluded materials consisted of non-research papers such as reviews, editorials, and commentaries, studies published outside the specified period, and works unrelated to nursing contexts or lacking full-text access. All retrieved studies were organized using the Mendeley Reference Manager. Duplicate titles were automatically detected and removed prior to screening. Two reviewers independently assessed the relevance of each article based on its title, abstract, and full text and resolved discrepancies through consensus. Data from eligible studies were then extracted and analyzed thematically to identify recurring concepts, relationships, and emerging trends related to caring leadership, nurses' caring behaviors, and patient satisfaction. The synthesis was presented narratively to capture the conceptual interconnections and practical implications of caring leadership in improving healthcare quality.

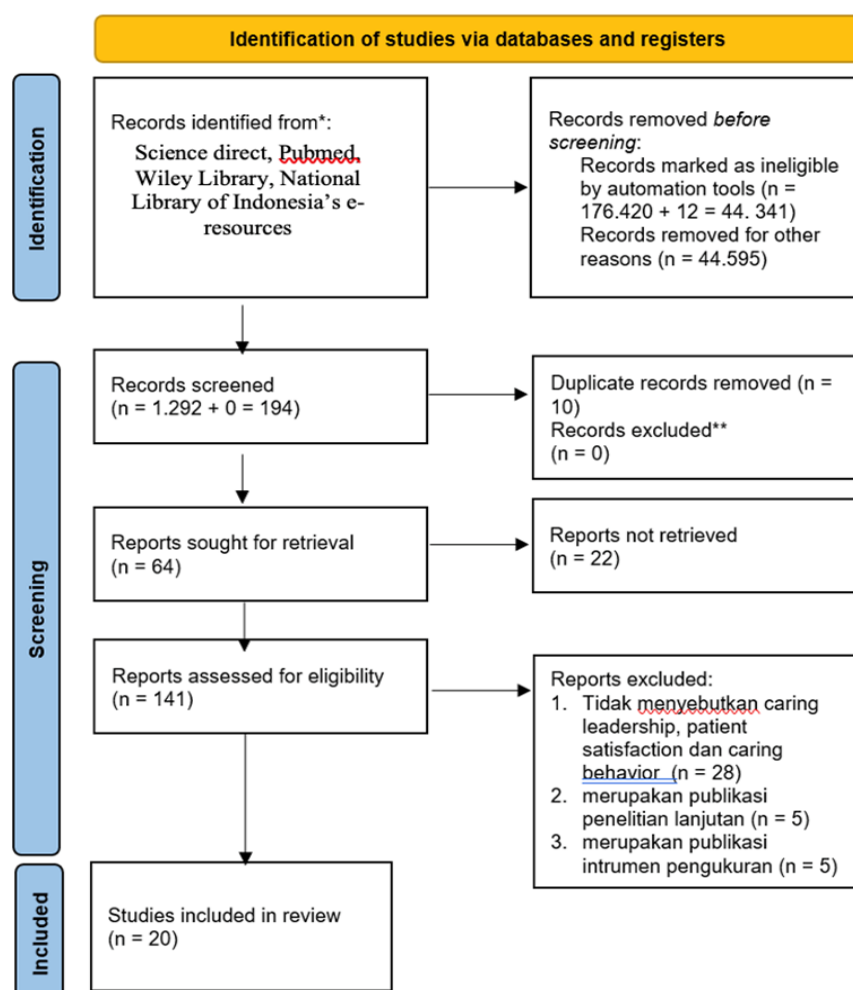


Figure 1. PRISMA diagram outlining the process of article selection

## RESULTS

### Patient Satisfaction

Patient satisfaction is a fundamental goal of healthcare quality improvement and is strongly correlated with patient adherence, loyalty, and compliance with the agreed treatment plans.<sup>(15,17)</sup> Satisfied patients are more inclined to follow medical advice and maintain continuity of care, whereas dissatisfaction often results in nonadherence, changing providers, or discontinuing treatment. As an outcome measure, patient satisfaction reflects not only clinical results but also the quality of the healthcare experience.<sup>(15,18,19)</sup> While the quality of care is often associated with infrastructure, technology, and physical facilities, the professional attitudes and behaviors of healthcare staff are just as critical as structural resources in ensuring the delivery of high-quality healthcare services. As primary healthcare providers, are thus expected to meet both technical and interpersonal dimensions of care. Patient satisfaction encompasses evaluations of medical and nursing care, support services, and facility infrastructure, often measured through structured satisfaction surveys.<sup>(19)</sup> However, hospitals worldwide still face challenges in meeting patient expectations. In Croatia, a 2018 study found that poor habits, behaviors, and communication among healthcare providers adversely impacted patients' emotional well-being, leading to dissatisfaction.<sup>(4)</sup> In Sweden, the same year, patients identified unprofessional services as the main source of dissatisfaction.<sup>(5)</sup> Other studies have highlighted that overall satisfaction with hospital care is strongly influenced by the quality of nursing care.<sup>(8,20)</sup>

The World Health Organization (WHO) defines six core indicators of healthcare quality: effectiveness, efficiency, accessibility, patient-centeredness, equity, and safety.<sup>(19,21)</sup> Effective care is evidence-based, tailored to individual and population needs, and results in improved health outcome.<sup>(19,22,23)</sup> For instance, patient satisfaction significantly increases when nurses provide consistent pain management before and after surgery, even extending up to two years postoperatively.<sup>(24)</sup> Efficient care maximizes resource use while minimizing waste, with satisfaction influenced by service attributes such as responsiveness, reliability, tangibility, assurance, and empathy.<sup>(25,26)</sup> Accessibility ensures that care is available without geographic, social, economic, organizational, or language barriers, as demonstrated by post-discharge interventions such as voice-note follow-up programs that reduce the need for hospital visits.<sup>(27)</sup> Patient-centered care respects individual preferences, cultural values, and aspirations, emphasizing mutual engagement between providers and patients.<sup>(28,29)</sup> This approach was evident in a 2021 patient satisfaction survey at Southwest Pennsylvania Hospital, where the implementation of therapeutic communication an element of caring leadership—resulted in positive patient comments increasing from 40,9 % to 60,7 %.<sup>(15)</sup>

The thematic analysis of international studies indicates that responsiveness, reliability, and empathy are the most influential service attributes affecting satisfaction. For instance, consistent pre- and postoperative pain management increases patient satisfaction even up to two years after surgery. Similarly, patient-centered care approaches, such as therapeutic communication programs implemented in Pennsylvania, have demonstrated measurable gains in satisfaction scores. Collectively, these findings emphasize that patient satisfaction depends not only on system performance but also on leadership that encourages caring behaviors among healthcare professionals.

### Caring in Nursing Practice

Caring is defined as a behavior or action performed sincerely to provide physical and emotional safety to others. It represents a fundamental human value and serves as a moral ideal in nursing, encompassing both the willingness and commitment to provide care.<sup>(30,31,32,33)</sup> As the core of nursing practice, caring requires nurses to demonstrate genuine concern for patients and integrate compassion into all aspects of patient interaction. Caring is a universal phenomenon that influences how humans think, feel, and act when interacting with others. Respect for individuals, a sense of belonging, and responsibility are integral to caring behavior, with the ultimate goal of delivering physical care while attending to emotional needs, fostering safety, empathy, and compassion as essential elements of nursing care.<sup>(28,34,35)</sup>

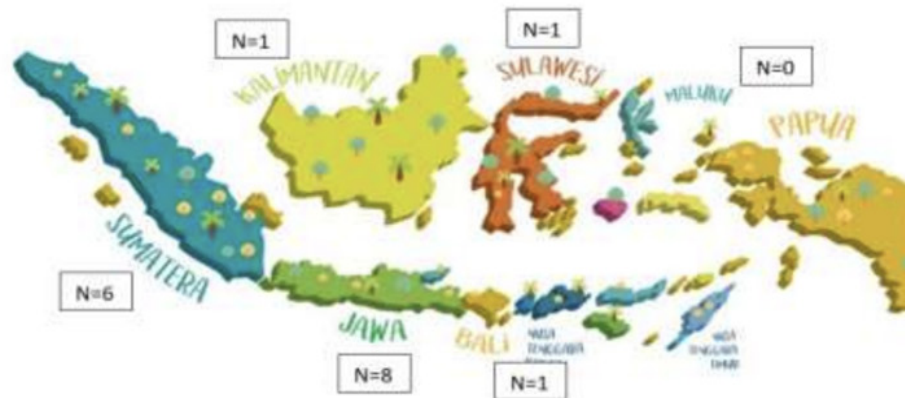
Nurses constitute the largest proportion of healthcare personnel in hospitals and play a pivotal role in ensuring high-quality healthcare services<sup>(9)</sup>. Professional nursing care is measured through specialized knowledge and skills, including intellectual, technical, and interpersonal competencies, all of which must reflect caring behavior.<sup>(7,8,9,10,36)</sup> Caring behavior in nursing manifests of attention to others, a person-centered approach, and respect for dignity and humanity.<sup>(9)</sup> When integrated with biophysical and behavioral science knowledge, caring enhances individual health outcomes and facilitates effective care delivery.<sup>(11)</sup>

Evidence also suggests that caring behavior yields financial benefits for healthcare organizations, as it improves the quality of nursing care and patient satisfaction.<sup>(10,11,30,36)</sup>

Despite its importance, caring behavior is not consistently demonstrated by nurses. International studies report varying levels of patient satisfaction with nurses' caring behaviors: 63,9 % in Turkey, 55,15 % in Ethiopia, and a 51,6 % rate of nurses rated as having good caring behavior by patients in Ethiopia.<sup>(7,20,36,37)</sup> Discrepancies often exist between nurses' self-assessments and patients' evaluations, with nurses typically rating themselves



higher.<sup>(38,39,40)</sup> In Indonesia (figure 2), studies conducted between 2012 and August 2022 across five major islands Sumatra, Java, Bali, Kalimantan, and Sulawesi showed the highest levels of patient satisfaction and caring behavior in Java, and the lowest in Sumatra.<sup>(3,8,41,42)</sup> These results highlight that technical proficiency alone does not guarantee caring practices. Factors such as job satisfaction, workload, leadership support, and emotional resilience significantly affect nurses' ability to exhibit caring behaviors. Consequently, hospitals must foster organizational cultures that reinforce compassion and respect as professional norms.



**Figure 2.** Regional Variations in Research Focus and Highlights Differences in Patient Satisfaction Levels Across Provinces  
**Source:** Patient Satisfaction With Nurses' Caring Behavior in Indonesia: A Literature Review<sup>(43)</sup>

### Caring Behavior Improvement Strategies

Caring behavior is a fundamental component of nursing practice and a critical determinant of high-quality patient care. Establishing an organizational culture of caring can serve as a strategic advantage in healthcare service delivery, aligning with institutional goals to enhance patient outcomes and staff engagement.<sup>(44)</sup> Evidence-based strategies for strengthening a caring culture include developing culturally relevant sensitive caring assessment tools, implementing of caring-based leadership models, and initiatives aimed at improving nurses' job satisfaction and work engagement.<sup>(44)</sup> Leadership substantially influences the development and maintenance of nurses' caring behaviors. Zhang et al. proposed a theoretical model of caring leadership comprising five core attributes: kindness toward others, valuing individuality, facilitating self-actualization, fostering mutual benefit, and motivating through charisma.<sup>(45,46,47)</sup> In nursing management, caring leadership integrates empathy with effective guidance, promoting nurses' well-being, patient recovery, and organizational excellence. Supporting research highlights the need for nurse managers to identify specific negative workplace behaviors that require targeted intervention. By enhancing their capacity for empathy toward staff and fostering a supportive team climate, nurse managers can mitigate the occurrence of horizontal violence and strengthen collegial relationships.<sup>(28)</sup>

In addition to leadership, several personal and professional factors influence nurses' caring behavior. These include: (1) facilitating social connections among staff, (2) maintaining a positive outlook, (3) practicing mindfulness and focusing on present conditions, (4) involving nurses in decision-making processes, (5) motivating staff for continuous self-improvement, (6) maintaining a professional appearance, and (7) demonstrating altruism.<sup>(48,49)</sup> Integrating these elements into nursing practice can sustain and reinforce caring behaviors, thereby improving patient satisfaction and overall quality of care and guiding nurse managers in fostering environments that nurture empathy, teamwork, and resilience. Empirical studies have also shown that caring leaders can reduce burnout, mitigate workplace conflict, and strengthen collegial relationships. Hence, caring leadership functions not only as a management style but also as a transformational force that aligns organizational goals with humanistic nursing values. In addition to leadership, individual factors influence caring behavior. Evidence indicates that social connectedness, mindfulness, optimism, professional appearance, and altruism contribute to caring. Involving nurses in decision-making enhances their ownership, motivation, and engagement. Integrating these elements supports both nurses' well-being and the delivery of compassionate and patient-centered care.

### Caring Leadership

Caring leadership is defined as the consistent demonstration of concern, kindness, and support for staff in daily practice. It is regarded as both an art and a skill in leadership, in which leaders deliberately incorporate a compassionate "human touch" into their behaviors to foster positive emotional responses among their team members.<sup>(50)</sup> In nursing, leaders who maintain close relationships with their staff can enhance nurses' self-confidence, leading to greater acceptance of diverse workplace situations.<sup>(51)</sup> Such interactions and expressions

of care from nurse leaders have been shown to reduce anxiety, strengthen self-assurance, and encourage initiative particularly among nurses working in high-stress environments such as isolation units and intensive care wards.<sup>(25,52,53,54)</sup>

Multiple studies have identified caring leadership as a critical strategy for transforming healthcare. Effective leaders can cultivate nurses' self-efficacy and influence their clinical practice behaviors.<sup>(47)</sup> Developing a caring leadership model is essential for enhancing nurses' caring behaviors, as it emphasizes patient-centered service and fosters a caring environment within healthcare settings.<sup>(55,56)</sup> Moreover, caring leadership can serve as a preventive measure against nurse burnout, with leader caring accounting for 48,9 % of the variance in nurses' turnover intention. The caring leadership process can be described in five phases: knowing, being with, doing for, enabling, and maintaining belief.<sup>(57)</sup> Furthermore, caring leadership supports self-efficacy and professional growth, creating a positive feedback loop that reinforces both patient satisfaction and nurses' performance. Collectively, the findings of this review affirm that leadership is a key determinant of the development and sustainability of caring behaviors among nurses. A culturally relevant caring leadership model that integrates empathy, empowerment, and relational ethics can strengthen nursing practice in Indonesia and address disparities in patient satisfaction across regions. Future research should refine such models through longitudinal and mixed-method studies to evaluate their effects on clinical and organizational outcomes.

### Indicators

Caring leaders demonstrate excellence in soft skills, encompassing personal attributes and interpersonal competencies, such as integrity, effective communication, empathy, compassion, courtesy, responsibility, social awareness, optimism, professionalism, adaptability, teamwork, and a strong work ethic. These competencies play a pivotal role in enhancing organizational performance and advancing institutional goals.<sup>(50)</sup>

According to *The Art of Caring* framework, nine indicators define caring leadership:<sup>(50)</sup>

- Creating a Culture of Listening: actively listen to team members and foster an environment that values constructive feedback.
- Fostering Self-Leadership Skills: encouraging the ability to self-direct, set priorities, take the initiative, and solve problems effectively.
- Empowering Others to Make Decisions: promoting autonomy, enthusiasm, and energy among the staff.
- Building Resilience: supporting staff to develop the capacity to overcome challenges and adapt to demanding situations is essential.
- Engaging Others: effectively involving team members in organizational projects and tasks.
- Leading as a Whole Person: drawing on personal values, lived experiences, and self-awareness to guide leadership practices.
- Seeking Greatness in Others: recognizing and appreciating the strengths and virtues of colleagues.
- Making Others Feel Valued: ensuring that staff perceive their contributions as meaningful to the organization.
- Providing a Safe Space: creating an environment where staff feel secure, respected, and free from marginalization or threats.

Patient satisfaction, caring behavior, and caring leadership are interdependent components that collectively determine the quality of healthcare services. Evidence indicates that professional nursing care rooted in genuine concern, empathy, and respect for patient dignity plays a pivotal role in enhancing patient experience and clinical outcomes. However, variations in patient satisfaction and caring behaviors across regions highlight the need for context-specific strategies to address existing gaps in the literature. Caring leadership has emerged as an effective approach to fostering a culture of empathy, collaboration, and professional growth within nursing teams. By integrating core soft skills and structured leadership phases, caring leaders can enhance nurses' well-being, reduce burnout, and promote consistent caring practices. This, in turn, contributes to improved patient satisfaction and organizational performance. Healthcare organizations, particularly hospitals, should prioritize adopting culturally tailored caring leadership models, alongside continuous professional development programs for nurses. Future research should explore the long-term impact of such models on patient satisfaction, staff retention, and quality of care across diverse healthcare settings, particularly in resource-constrained environments.

From the authors' perspective, caring leadership represents more than a managerial framework; it is a transformative philosophy that humanizes healthcare practice. When integrated with structured leadership development and the cultivation of soft skills, such as communication, empathy, and responsibility, caring leadership can improve nurses' well-being, strengthen team cohesion, and sustain caring behaviors, even in high-stress environments. These findings align with recent studies emphasizing the role of relational leadership and psychological safety in improving patient-centered outcomes.

Table 1. Baseline characteristics of studies included in the analysis

| No | Author(s) & Year                               | Focus Area           | Design & Sample                                    | Instrument                                                 |            | Key Findings                                                                                                       |
|----|------------------------------------------------|----------------------|----------------------------------------------------|------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------|
| 1  | Wulandari et al., 2021 <sup>(19)</sup>         | Patient Satisfaction | Quantitative, 39 respondents                       | Modified Press Ganey inpatient survey (Indonesian version) |            | Satisfaction influenced by effectiveness, accessibility, patient-centeredness, and equity.                         |
| 2  | Marzuq & Andriani, 2022 <sup>(26)</sup>        | Patient Satisfaction | Literature review, 25 articles                     | Service quality dimensions                                 |            | Responsiveness, reliability, tangibility, assurance, empathy affect satisfaction.                                  |
| 3  | Lestari et al., 2021 <sup>(58)</sup>           | Patient Satisfaction | Literature review, 20 articles                     | Multiple sources                                           |            | Caring behavior, empathy, communication, and service quality affect satisfaction.                                  |
| 4  | Soviarni, 2019 <sup>(59)</sup>                 | Patient Satisfaction | Cross-sectional, 94 respondents                    | Care-Q                                                     |            | Caring attitudes significantly affect satisfaction.                                                                |
| 5  | Christian et al., 2022 <sup>(45)</sup>         | Patient Satisfaction | Correlation, 1521 patients                         | Caring Watson & CBI                                        |            | Nurse empathy enhances comfort and satisfaction despite higher costs.                                              |
| 6  | Wagner & Bear, 2021 <sup>(45)</sup>            | Patient Satisfaction | Literature review                                  | Multiple databases                                         |            | Respect, involvement, and communication improve satisfaction and recovery.                                         |
| 7  | Lawson et al., 2022 <sup>(60)</sup>            | Patient Satisfaction | Correlation, 3 456 nurses & 628 leaders            | Multifactor Questionnaire                                  | Leadership | Informal leadership style linked to higher satisfaction.                                                           |
| 8  | Thiyagarajan et al., 2022 <sup>(61)</sup>      | Patient Satisfaction | Correlation, 288 patients                          | Pain & function scales                                     |            | Effective pain management pre/post-op improves satisfaction.                                                       |
| 9  | Gray et al., 2022 <sup>(24)</sup>              | Patient Satisfaction | Comparative survey, 533 patients                   | NRC HCAHPS                                                 |            | No significant difference between virtual and in-person care.                                                      |
| 10 | D'Antonio et al., 2022 <sup>(27)</sup>         | Patient Satisfaction | Descriptive-experimental, 341 patients & 39 nurses | HCAHPS & AHN CARES                                         |            | Leader empathy improves patient satisfaction.                                                                      |
| 11 | Afriliana et al., 2022 <sup>(15)</sup>         | Caring Behavior      | Literature review                                  | Multiple databases                                         |            | Highest caring behavior in Java, lowest in Sumatra.                                                                |
| 12 | Kiwanuka et al., 2021 <sup>(3)</sup>           | Caring Behavior      | Integrative review                                 | Multiple databases                                         |            | Work engagement, job satisfaction, reduced burnout linked to caring behaviors.                                     |
| 13 | Peng et al., 2021 <sup>(12)</sup>              | Caring Behavior      | Cross-sectional, nurses                            | Caring perception scale                                    |            | Head nurse's caring behavior protects against horizontal violence.                                                 |
| 14 | Wei et al., 2019 <sup>(51)</sup>               | Caring Behavior      | Literature review                                  | Nursing leadership studies                                 |            | Resilience-building leadership increases caring behaviors.                                                         |
| 15 | Solbakken et al., 2022 <sup>(13)</sup>         | Caring Behavior      | Qualitative, visual hermeneutic                    | Interviews                                                 |            | Trust-based leadership enhances caring culture.                                                                    |
| 16 | De Los Santos & Labrague, 2021 <sup>(14)</sup> | Caring Behavior      | Cross-sectional                                    | Caring Behaviors Inventory (CBI)                           |            | Job engagement and satisfaction correlate with caring behaviors.                                                   |
| 17 | Liyang et al., 2022 <sup>(49)</sup>            | Caring Behavior      | Validation study                                   | Culture of Care Barometer                                  |            | Organizational caring culture improves nurse-patient relations.                                                    |
| 18 | Zhang et al., 2022 <sup>(44)</sup>             | Caring Leadership    | Grounded theory, 10 leaders & 11 staff             | Open-ended questionnaires                                  |            | Five attributes: kindness, valuing uniqueness, facilitating self-actualization, mutual benefit, motivating wisely. |
| 19 | Mirayani et al., 2019 <sup>(47)</sup>          | Caring Leadership    | Cross-sectional                                    | CBI & burnout model                                        |            | Caring leadership improves performance, reduces turnover.                                                          |
| 20 | Steele, 2008 <sup>(62)</sup>                   | Caring Leadership    | Conceptual framework                               | "The Art of Caring Leadership" indicators                  |            | Nine indicators: listening culture, empowerment, resilience, recognition, etc.                                     |
| 21 | Steinbinder & Sisneros, 2020 <sup>(50)</sup>   | Caring Leadership    | Qualitative                                        | Leadership behavior analysis                               |            | Caring leadership boosts motivation and climate.                                                                   |
| 22 | McDowell et al., 2013 <sup>(21)</sup>          | Caring Leadership    | Teaching intervention                              | Leadership training evaluation                             |            | Leading with kindness and compassion strengthens psychological safety.                                             |
| 23 | Tomkins, 2015 & 2021 <sup>(25,52)</sup>        | Caring Leadership    | Philosophical approach                             | Heideggerian & moral analysis                              |            | Authentic caring leadership improves relational trust.                                                             |
| 24 | Wati et al., 2019 <sup>(57)</sup>              | Caring Leadership    | Mentoring program                                  | Evaluation study                                           |            | Mentoring boosts charge nurse competencies.                                                                        |

Based on this synthesis, healthcare organizations, particularly hospitals, should prioritize institutionalizing culturally adapted caring leadership models. Continuous professional development programs must incorporate caring values into clinical education and leadership training. Future research should focus on evaluating the long-term impacts of such interventions on patient satisfaction, staff retention, and healthcare quality, especially in resource-limited contexts, where caring values can serve as a low-cost yet powerful driver of systemic improvement.

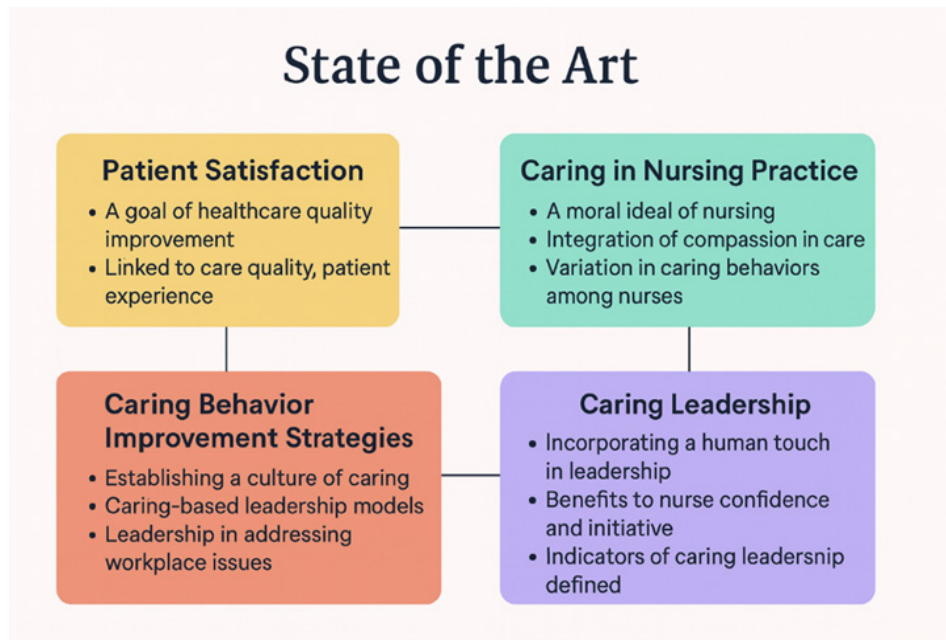


Figure 3. State of the Art

The State of the Art (figure 3) describes existing evidence demonstrating a strong relationship between patient satisfaction, nurses' caring behaviors, and caring leadership. Studies on patient satisfaction emphasize the importance of service quality dimensions, including responsiveness, reliability, tangibility, assurance, and empathy, as well as core WHO indicators, such as effectiveness, accessibility, and patient-centeredness. Interventions such as consistent pain management and the application of empathetic leadership styles have been shown to significantly enhance patient satisfaction. Research on caring behavior highlights the influence of work engagement, job satisfaction, resilience, organizational culture, and leadership styles. Regional disparities in Indonesia reveal the highest caring behavior scores in Java and the lowest in Sumatra, suggesting the involvement of cultural and systemic factors. Trust-based leadership, prevention of horizontal violence, and resilience-building initiatives are consistently associated with higher caring behavior. Caring leadership is a transformative management approach that fosters caring behaviors, improves nurses' well-being, and ultimately enhances patient outcomes. Theoretical frameworks, such as those proposed by Zhang et al.<sup>(47)</sup> The five-attribute model and Younger's nine indicators outline practical pathways for embedding caring values into leadership. Empirical studies have shown reductions in burnout, increased motivation, and improved organizational climate when caring leadership principles are implemented.

## CONCLUSIONS

This systematic review aimed to analyze the influence of caring leadership on nurses' caring behaviors and patient satisfaction in hospital settings. The evidence synthesized reveals that these three components—caring leadership, caring behavior, and patient satisfaction—are mutually reinforcing and collectively shape the overall quality of healthcare. Caring leadership, grounded in empathy and relational ethics, emerges as a transformative approach that nurtures nurses' well-being, fosters a culture of compassion, and enhances patient-centered care. When effectively implemented, it promotes organizational resilience, professional growth, and sustained caring behaviors in nurses. Overall, the findings highlight the need to institutionalize culturally relevant caring leadership models within healthcare systems, particularly in Indonesia, where disparities in caring practices persist. The authors concluded that strengthening leadership development and integrating caring values into nursing education and management are essential steps toward improving patient satisfaction and healthcare quality. Future studies should evaluate the long-term and systemic effects of caring leadership on clinical and organizational outcomes.



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