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Received: 7 October 2022 | Revised: 17 February 2023 | Accepted: 29 May 2023

DOI: 10.1002/nop2.1876

NursingOpen Open Access WILEY

SYSTEMATIC REVIEW

Relationships between nursing leadership and organizational, staff and patient outcomes: A systematic review of reviews

Marja Hult[1] | Anja Terkamo-Moisio[1] | Pirjo Kaakinen[2,3] | Suyen Karki[1] | Anu Nurmeksela[1] | Mira Palonen[4] | Laura-Maria Peltonen[5] | Arja Häggman-Laitila[1,6]

[1]Department of Nursing Science, University of Eastern Finland, Kuopio, Finland

[2]Research unit of Nursing Science and Health Management, University of Oulu, Oulu, Finland

[3]The Finnish Centre for Evidence-Based Health Care: A Joanna Briggs Institute Centre of Excellence, Helsinki, Finland

[4]Department of Nursing Science, Tampere University, Tampere, Finland

[5]Department of Nursing Science, University of Turku, Turku, Finland

[6]Social and Health Care, City of Helsinki, Helsinki, Finland

Correspondence
Marja Hult, Department of Nursing Science, University of Eastern Finland, Kuopio, Finland.
Email: marja.hult@uef.fi

Abstract

Aim: To assess and describe reviews of nursing leadership styles associated with organizational, staff and patient outcomes.

Design: A systematic review of reviews.

Methods: Reviews describing a search strategy and quality assessment. The review followed the PRISMA statement. Nine databases were searched in February 2022.

Results: After screening 6992 records, 12 reviews were included reporting 85 outcomes for 17 relational, nine task-oriented, five passive and five destructive leadership styles. Transformational leadership, which is one of the relational styles, was the most studied among all the styles. Of the outcomes, staff outcomes were the most reported, notably job satisfaction, and patient outcomes were less reported. Also, mediating factors between relational leadership styles and staff and patient outcomes were identified.

Conclusion: Extensive research shows the beneficial impacts of relational leadership; however, destructive leadership research is lacking. Relational leadership styles should be conceptually assessed. More research is needed on how nurse leadership affects patients and organizations.

KEYWORDS
nurse outcomes, nurse-sensitive outcomes, nursing management and leadership, nursing staff, organizational outcomes, patient outcomes, systematic review, umbrella review

1 | INTRODUCTION

A sizeable proportion of the current nursing workforce will retire in the coming years, which will accelerate the global shortage of skilled nurses. This will make it difficult to achieve one of the most statistically significant goals of health care—the provision of high-quality and cost-effective care (WHO, 2022). This challenge can be overcome by increasing the attractiveness of the nursing profession and strengthening the competences and leadership quality of nurse leaders. Previous evidence has shown that attractive organizations are associated with the following factors: good leadership; healthy work environment; satisfied staff; and excellent care quality (Nurmeksela et al., 2021; Rodríguez-García et al., 2020; Slåtten et al., 2019; Spence Laschinger et al., 2016).

Nurse leaders are expected to create safe and healthy environments that will support nursing staff in providing patient-centred, high-quality and cost-effective care. In addition, these professionals have an influential role in fostering a culture of interdisciplinary

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teamwork, which helps nursing staff contribute to optimal patient outcomes and grow as professionals (Hughes et al., 2022). Nurse leaders are required to have strategic expertise in management, and a good handle on the implementation of nursing. Moreover, they need to master social and healthcare service systems and operating environments, and be able to implement evidence-based activities (Bjerregård Madsen et al., 2016; Caramanica & Spiva, 2018; Hughes et al., 2022; Nurmeksela et al., 2020). Human resource management (Gunawan et al., 2018) and a focus on staff well-being have been shown to increase commitment among staff members (García-Iglesias et al., 2021; Nurmeksela et al., 2021). In addition to the development of staff and patient issues, nurse leaders are also involved in financial management on a daily basis (González-García et al., 2021). However, self-assessments by nurse leaders have revealed that they have the weakest competence in these aspects of their work (Bjerregård Madsen et al., 2016; McFarlan, 2020).

Organizational factors, such as the number and skill mix of staff, available resources, support from human resources management, and leadership models (e.g. team leading, dual leadership and shared governance), have a substantial effect on a leader's possibility to champion strategic development (Gunawan et al., 2018; McKnight & Moore, 2022). Also, the power balance in an organization, a nurse leader's personal relationships, trust and communication and decision-making processes, all influence leadership (Thude et al., 2017). Furthermore, contemporary nurse leaders need to independently make decisions concerning digital and technical solutions, remote leadership and the number of centralized solutions (Terkamo-Moisio et al., 2022). An inherent part of any leadership position is managing problems; this means that the healthcare field must work to ensure the development of high-quality leaders for the future. Finally, the diverse expectations placed on nurse leaders mean that aspiring leaders need to be provided with training that develops their leadership quality and skills (Cummings et al., 2021). Nursing leadership has been extensively studied, and the outcomes of different leadership styles have been synthesized in numerous reviews. However, no research has systematically collected and assessed the reviews on the topic. Moreover, previously organizational, nursing staff and patient outcomes have been presented as fragmented; thus, a comprehensive overview is needed to identify future research needs and develop nursing leadership effectiveness.

What does this paper contribute to the wider global clinical community?

- This study summarized the highest quality evidence of current nursing management research and showed the focus area.
- Relational leadership styles, and specifically transformational leadership, showed beneficial outcomes for organizations, nursing staff and patients.

2 | THE REVIEW

2.1 | Aims

This study aimed to identify, assess and describe reviews of nursing leadership styles associated with organizational, nursing staff and patient outcomes. An additional aim was to draw a hypothetical model from the results. The review was guided by the following research questions: What nursing leadership styles were described in the included reviews?

What organizational, staff and patient outcomes were reported in association with leadership styles?

2.2 | Design

We conducted a systematic review to synthesize and compare the findings from previous peer-reviewed reviews. Our review followed the protocol proposed in the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement (Page et al., 2021), along with instructions for umbrella reviews (Aromataris et al., 2015) and conducting reviews of systematic reviews (Smith et al., 2011). The protocol of this review was registered in the PROSPERO international prospective register of systematic reviews on 13 December 2022 [*#CRD42021291024*].

2.3 | Search methods

A comprehensive systematic search was conducted in nine electronic databases: Business Source Elite; Cumulative Index to Nursing and Allied Health Literature (CINAHL); the American Economic Association's authoritative index for economic literature (EconLit); Medical Literature Analysis and Retrieval System Online (MEDLINE); PsycINFO; Scopus; SocINDEX; The Cochrane Library; and Web of Science. The search strategy was based on the Population, Intervention, Comparison, Outcomes and Study (PICOS) format; more specifically, P = Nurse leaders and managers, nurses, patients, I = Nursing leadership and management, C = Health and social care organizations, O = Organizational, staff and patient outcomes, S = Systematic or non-systematic reviews. Prior to the final search, a preliminary search was conducted in these databases to identify relevant terms and their synonyms. The main concepts used in the preliminary search were 'nursing leadership', 'nursing management', 'organizational outcomes', 'patient outcomes', 'nursing outcomes', 'nurse-sensitive outcomes' and 'review'. After gathering the relevant terms, along with common synonyms, from the existing literature, we developed a search strategy together with the university information specialist (Table S1).

The search strategy was restricted to peer-reviewed systematic reviews, non-systematic reviews, meta-analyses and meta-syntheses; no language or date restrictions were applied. The final searches were conducted on the 15 of November 2021. We re-ran the searches just before the final analyses, on the 26 of February 2022.

2.4 | Eligibility criteria

We included peer-reviewed systematic and non-systematic reviews that reported qualitative or quantitative outcomes describing the relationship between nursing leadership and at least one of the following outcomes: organizational, nursing staff or patient outcomes. Reviews had to include nurse leaders or managers, nurses, patients or health and social care organizations. Furthermore, reviews that followed review protocols or reported a search strategy, included a literature search with defined inclusion and exclusion criteria and reported a quality assessment of the original studies were included.

Reviews that focused on healthcare professionals other than nurse leaders or nurses were excluded. Studies were excluded if the outcomes for nurse leaders or nurses could not be separated from other professionals. Similarly, reviews were excluded if they were related to family members of patients or did not evaluate organizational, staff or patient outcomes. In addition, reviews primarily related to the quality of care were excluded. Reviews published only as abstracts, reports, commentaries and non-peer-reviewed reviews and reviews without a quality assessment of included original studies were excluded.

2.5 | Study selection

All of the reviews identified from different databases ($n = 6992$) were imported into Covidence software (Covidence, 2022), which was used to automatically delete duplicate references ($n = 2594$). The selection process involved two screening techniques: title and abstract screening ($n = 4398$); and full-text review ($n = 211$). Both of these approaches were completed using the Covidence software. All of the researchers took part in both screening processes, and when progressing from one technique to the other, at least two researchers independently screened each article according to the eligibility criteria. In the case that two independent researchers disagreed, a third researcher was involved to make the final decision on whether a study should be included or excluded based on the eligibility criteria. At the full-text phase, 12 reviews were excluded due to language constraints in the research group; these 12 studies were published in the following languages: Chinese ($n = 1$); Greek ($n = 1$); Italian ($n = 1$); Korean ($n = 2$); Portuguese ($n = 4$); and Spanish ($n = 3$). A total of 12 reviews that met the inclusion criteria were included in the final review of reviews (Figure 1).

2.6 | Quality appraisal

The quality of the included reviews was evaluated independently by two researchers using the Joanna Briggs Institute (JBI) Checklist for Systematic Reviews and Research Syntheses (Aromataris et al., 2015). The tool consists of 11 items, with each item scored using a four-option scale—yes, no, unclear and not applicable. This checklist was embedded into Covidence, and the main author evaluated the final quality appraisal outcome to ensure consensus. The results were presented as scores (Table S2). None of the reviews were excluded based on the quality appraisal results.

2.7 | Data abstraction

Information from the reviews was extracted in an Excel spreadsheet, with two researchers independently reviewing and extracting data from each article. The following data were extracted: author(s); year; country; journal; aims; design; databases screened; inclusion and exclusion criteria; time frame; number, type and country of origin of included studies; quality appraisal method; analytical method; setting; total number of participants; leadership type(s); outcome(s); and key findings. The extracted data were reviewed by the first author, and any disputes were resolved through discussion.

2.8 | Synthesis

Due to the heterogeneity of the included reviews, we used mixed-methods synthesis; more specifically, a data-based convergent synthesis (Noyes et al., 2019; Sandelowski et al., 2006). The findings from the qualitative and quantitative reviews were synthesized to answer the same study questions. The outcomes were first independently collected by two researchers (*MH*, *AT-M*) and then discussed in the research group. Quantitative outcomes were turned into qualitative insights to enable integration. Thereafter, the outcomes were inductively assessed and organized into categories based on their content. This inductive content analysis employed the conventional content analysis method described by Hsieh and Shannon (2005).

2.9 | Overlap of the included reviews

We assessed the overlap of the included reviews to avoid the risk of including overlapping data from multiple reviews (Lunny et al., 2021; Pollock et al., 2017). However, the included reviews did not contain Randomized Controlled Trail (RCT) studies with meta-analyses; therefore, we were unable to calculate overlapping pooled effect estimates for similar outcomes. As this systematic review of reviews included no reviews with meta-analysis or statistical synthesis, double counting of participants is not a risk (Pollock et al., 2017). Nevertheless, we chose the most comprehensive review (Cummings et al., 2018) as a reference to calculate

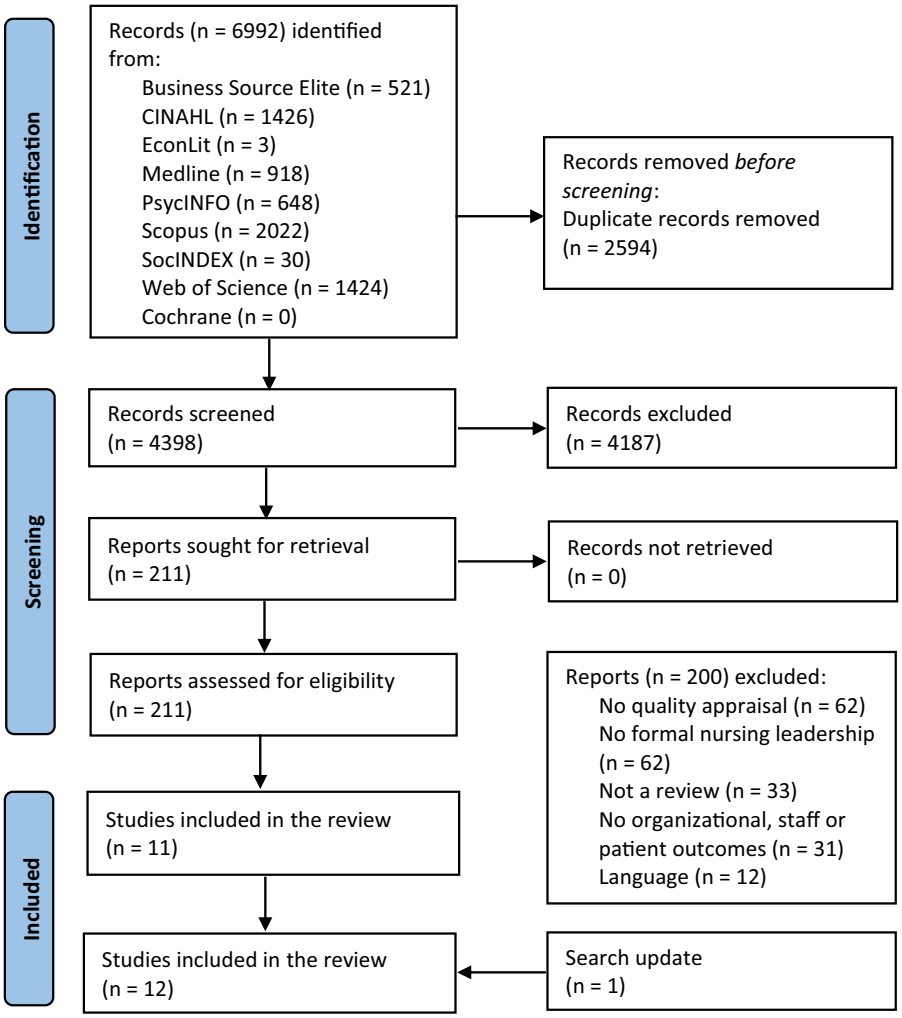

FIGURE 1 Flow diagram of the literature screening process (Page et al., 2021).

the percentage of overlap by hand. The prevalence of overlapping results ranged from 10% in the 10 original studies included in the Wang and Dewing (2021) review to 58% in the 26 studies in the Hussain and Khayat (2021) review. We further compared similar outcomes among the included studies in pairs, and all of the reviews had at least one original study in common with another review. None of the reviews had 100% overlap with another review, so we did not exclude any review due to overlapping results. All the original studies included in at least two reviews are shown in Table S4.

3 | RESULTS

3.1 | Study characteristics

The included reviews (Table 1) were published between 2011 and 2022 and conducted in Canada ($n=4$), the United States ($n=3$), Saudi Arabia ($n=2$), the United Kingdom ($n=2$) and Finland ($n=1$). These reviews included a total of 365 original studies, of which 339 were quantitative, nine were qualitative and five represented mixed-methods studies. It should also be noted that the review from James et al. (2021) included two case studies and 10 literature reviews. The time frame of the original studies included in the identified reviews ranged from 1958 to 2020.

3.2 | Summary of quality appraisal

Of the 11 JBI checklist items, 10 were applicable to the included reviews (Table S2). As there were no meta-analyses among included studies, the assessment of the likelihood of publication bias was not relevant, and therefore, excluded, giving the maximum score of 10. The quality appraisal process revealed that seven reviews had major shortcomings in the methods used to minimize errors during data extraction; more specifically, only one person was involved. In six reviews, critical appraisal was conducted by only one reviewer, while the methods used to combine studies were unclear in six reviews. The quality assessment scores of the included reviews varied from the maximum score (Alilyyani et al., 2018; Cummings et al., 2018) to 50% of the maximum score (McCay et al., 2018).

TABLE 1 Characteristics of the included reviews.

Study ID	Authors (year) Country; Study design	Aims	Search strategy	Number and type of included studies	Quality appraisal method	Leadership style(s) reported	Outcomes
1	Alilyyani et al. (2022) Saudi Arabia; Integrative review	To describe leadership styles from Saudi Arabian nursing literature and to identify the current state of evidence about relationships between leadership styles and nurse, patient and organizational outcomes in Saudi Arabia	Nursing & Allied Health Database, Cochrane Database, PubMed, CINAHL, Embase, PsycINFO, Scopus, Web of Science, ProQuest Dissertations & Theses	Studies included: $n=9$; Quantitative: $n=6$; Qualitative: $n=2$; Mixed methods: $n=1$; Time frame of included studies: 2000–2020	CASP, quality assessment and validity tool for correlational studies	Transformational, transactional, laissez-faire, passive-avoidant, management-by-exception	Organizational outcomes: Organizational commitment; Staff outcomes: Job satisfaction, intent-to-stay, willingness to exert extra effort
2	Alilyyani et al. (2018) Canada; Systematic review	To examine the antecedents, mediators and outcomes associated with authentic leadership in health care	ABI/INFORM, Academic Search Complete, Cochrane Database, PubMed, CINAHL, Embase, ERIC, PsycINFO, Scopus, Web of Science and ProQuest Dissertations & Theses	Studies included: $n=21$; Quantitative: $n=21$; Time frame of included studies: 2004–2017	Quality assessment and validity tool for correlational studies	Authentic	Staff outcomes: Personal psychological state, satisfaction with work, work environment factors, health and well-being performance; Patient outcomes: Injury, patient satisfaction, hospital-acquired pressure ulcers
3	Cowden et al. (2011) Canada; Systematic review	To examine the relationship between managers' leadership practices and nurses' intent-to-stay in their current position	CINAHL, MEDLINE, PsycINFO, ERIC, Embase, SCOPUS, manual searches	Studies included: $n=23$; Quantitative: $n=22$; Qualitative: $n=1$; Time frame of included studies: 1989–2010	Quality assessment and validity tool for correlational studies	Leadership practices Transformational, autocratic, management-by-exception	Staff outcomes: Intent-to-stay
4	Cummings et al. (2018) Canada; Update for Cummings et al. (2010) Systematic review	To examine the relationships between various styles of leadership and outcomes for the nursing workforce and their work environments	CINAHL, MEDLINE, PsycINFO, ABI/INFORM, ERIC, Sociological Abstracts, EMBASE, Cochrane Database, Health Star, Academic Search Premier	Studies included: $n=129$; Quantitative: $n=129$; Time frame of included studies: 1958–2017	Quality assessment and validity tool for correlational studies	Relationally focused, task focused	Organizational outcomes: Organizational environment factors; Staff outcomes: Staff satisfaction with job factors, staff relationships with work, staff health and well-being, relationships among staff, productivity and effectiveness
5	Fowler et al. (2021) USA; Integrative review	To evaluate literature on the importance of good communication between managers and nurses and its influence on nurses' and patient care	CINAHL, EMBASE, MEDLINE, PubMed, PsycINFO, Sociological Abstracts and Cochrane Database	Studies included: $n=30$; Quantitative: $n=30$; Time frame of included studies: 2014–2019	The Newcastle–Ottawa scale (NOS)	Leadership communication; Transformational, Participative, Supportive, Achievement-oriented, Directive	Staff outcomes: Job satisfaction, intent-to-stay, intent-to-leave; Patient outcomes: Patient safety and quality

(Continues)

TABLE 1 (Continued)

Study ID	Authors (year) Country; Study design	Aims	Search strategy	Number and type of included studies	Quality appraisal method	Leadership style(s) reported	Outcomes
6	Hussain and Khayat (2021) Saudi Arabia; Systematic review	To examine the impact of transformational leadership on job satisfaction and organizational commitment among hospital staff	MEDLINE, CINAHL, Scopus, Web of Science, grey literature.	Studies included: $n=26$; Quantitative: $n=26$; Time frame of included studies: 1990–2016	Quality assessment and validity tool for correlational studies	Transformational	Organizational outcomes: Organizational commitment; Staff outcomes: Job satisfaction
7	James et al. (2021) UK; Integrative review	To explore literature that supports an understanding of values-based leadership in nursing	BCS, PubMed, CINAHL, Proquest, OVID	Studies included: $n=48$; Quantitative: $n=26$, qualitative: $n=6$, mixed methods: $n=4$, case study: $n=2$, literature review: $n=10$; Time frame of included studies: 2006–2020	Joanna Briggs Institute critical appraisal tools	Authentic, servant, congruent, value-based	Staff outcomes: Work environment, job satisfaction, staff well-being, retention; Patient outcomes: Quality of care
8	McCay et al. (2018) USA; Systematic review	To synthesize current evidence on nursing leadership styles, nurse satisfaction and patient satisfaction	Cochrane Database, CINAHL, PubMed	Studies included: $n=14$; Quantitative: $n=14$; Time frame of included studies: 2009–2016	GRADE	Transformational, transactional, authentic, laissez-faire, situational, contingent-reward, management-by-exception, democratic, affiliative, sustainable, bureaucratic	Organizational outcomes: Organizational commitment; Staff outcomes: Job satisfaction, intent-to-stay; Patient outcomes: Patient satisfaction
9	Niinihuhta & Häggman-Laitila (2022) Finland; Systematic review	To summarize current research knowledge about the relationships between nurse leaders' leadership styles and nurses' work-related well-being	CINAHL, Scopus, PubMed, Medic	Studies included: $n=17$; Quantitative: $n=17$; Time frame of included studies: 2012–2020	Critical appraisal of a survey	Management-by exception, laissez-faire, exploitative, tyrannical, supportive, transactional, empowering, resonant, transformational, authentic, servant, ethical	Staff outcomes: Burnout, subjective well-being, job satisfaction, empowerment, mental health, negative affectivity, distress, anticipated turnover, motivation
10	Wang & Dewing (2021) UK; Integrative review	To evaluate the mechanism through which nursing leadership impacts patient safety	CINAHL, MEDLINE, ProQuest Central, PubMed, PsycINFO, Ovid, Web of Science	Studies included: $n=10$; Quantitative: $n=10$; Time frame of included studies: 2004–2019	JBI critical appraisal checklist for cross-sectional and qualitative study	Transformational, authentic, resonant	Patient outcomes: Patient safety
11	Wei et al. (2020) USA; Systematic review	To assess the impact of nurse leadership styles on nurse burnout	CINAHL, MEDLINE, PsycINFO, Google Scholar	Studies included: $n=18$; Quantitative: $n=18$; Time frame of included studies: 2010–2019	An appraisal tool for descriptive quantitative studies	Authentic, empowering, servant, resonant, transformational	Staff outcomes: Burnout
12	Wong et al. (2013) Canada; Update for Wong et al (2007) Systematic review	To examine the relationship between nursing leadership practices and patient outcomes	ABI/INFORM, Academic Search Complete, Cochrane Database, MEDLINE, CINAHL, EMBASE, ERIC, PsycINFO	Studies included: $n=20$; Quantitative: $n=20$; Time frame of included studies: 1985–2005, updated 2005–2012	Quality assessment and validity tool for correlational studies	Transformational, transactional, participative, consensus, task-orientated, relationship-oriented, resonant	Patient outcomes: Patient satisfaction, patient mortality, patient safety

3.3 | Description of nursing leadership in the reviews

The included reviews described nursing leadership by leadership styles and management practices, as assessed by the nursing staff. A total of 36 distinct leadership styles were identified from the data (Table S3). A total of 17 leadership styles were grouped as *relational* leadership styles, while the identified reviews also included nine *task-oriented*, five *passive* and five *destructive* leadership styles. The most common leadership style was transformational leadership style, which was reported in 10 reviews, followed by transactional leadership style, which was discussed in five reviews. A total of eight organizational, 64 staff-related and 13 patient-related outcomes were reported in the included reviews (Table 2).

In addition to leadership styles, the reviews covered outcomes related to leaders' characteristics and management practices ($n = 24$), which were grouped under manager, community and organizational levels (Table S3). A total of eight manager-related practices referred to the qualities or competences of a manager, while nine community-related practices included providing support, creating good working group relationships or trust generated by a director. Moreover, eight organizational practices were related to trust in the organization, the use of recognition and rewards and involving employees in decision-making.

3.4 | Outcomes for nursing leadership styles and management practices

This section presents organizational, staff and patient outcomes for leadership styles and management practices; detailed results are presented in Table 2. Moreover, mediating factors and synthesis of the results in a hypothetical model is presented.

3.4.1 | Nursing leadership styles and management practices related to organizational outcomes

Relational leadership styles (Table 2) were associated with better organizational culture more often than other leadership styles and was seen as trust in the organization (Niinihuhta & Häggman-Laitila, 2022; Wei et al., 2020) and perceptions of organizational support among nursing staff (Cummings et al., 2018; Wei et al., 2020). Also, relational leadership styles were associated with certain organizational practices, for example successful staffing (Cummings et al., 2018).

Community-related management practices were associated with better work conditions and safe organization practices (Wang & Dewing, 2021) in comparison with other management practices. *Organization-related* practices, in turn, increased nurses' trust in the organization (Wei et al., 2020).

3.4.2 | Nursing leadership styles and management practices related to staff outcomes

Relational leadership styles (Table 2) were related to an employee's commitment, as the application of this leadership style increased the intent-to-stay (Cowden et al., 2011; Cummings et al., 2018; Fowler et al., 2021) and decreased turnover among nursing staff (Cummings et al., 2018; Wei et al., 2020). Moreover, according to Hussain and Khayat (2021), relational leadership styles also increased nurses' satisfaction and work engagement. Relational leadership styles were also reported to positively impact well-being by promoting, for instance, nurses' physical and mental health (James et al., 2021; Niinihuhta & Häggman-Laitila, 2022) and decreasing burnout and stress (Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Niinihuhta & Häggman-Laitila, 2022; Wei et al., 2020). Furthermore, relational leadership styles were positively associated with the professional competence of nursing staff. For example, nurses who experienced relational leadership styles were found to be more willing to give extra effort (Alilyyani et al., 2022; Cummings et al., 2018; McCay et al., 2018), and more productive and effective (Alilyyani et al., 2018; James et al., 2021), than nurses who experienced other leadership styles. Relational leadership was also found to exert benefits on team collaboration, for example good teamwork climate, positive relationships at the workplace, and nurses' trust in co-workers and the leader (Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Wei et al., 2020). The included reviews also reported that the relational leadership style would translate to a better quality of work, for example, higher empowerment and autonomy among the nursing staff (Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Wang & Dewing, 2021; Wei et al., 2020).

Task-oriented leadership styles were both positively and negatively associated with nurses' organizational commitment (Cummings et al., 2018) and well-being (Cummings et al., 2018; Niinihuhta & Häggman-Laitila, 2022). Also, nursing staff members' productivity, effectiveness and willingness to exert extra effort were found to be positively associated with task-oriented leadership styles (James et al., 2021; Wong et al., 2013). However, task-oriented leadership styles decreased nurses' satisfaction with the leader (Cummings et al., 2018). Moreover, the quality of the work environment was mainly hampered by task-oriented styles (Cummings et al., 2018; McCay et al., 2018).

Passive leadership styles were negatively associated with nurses' commitment, intent-to-stay and job satisfaction (Alilyyani et al., 2018, 2022; Cowden et al., 2011; Cummings et al., 2018; McCay et al., 2018). The well-being outcomes of passive leadership were equally adverse (Cummings et al., 2018; Niinihuhta & Häggman-Laitila, 2022), with the exception of burnout, as both leaders and employees were more prone to burnout under passive leadership (Wei et al., 2020).

Destructive leadership styles decreased nurses' intent-to-stay, which meant that nurses subjected to this type of leadership are

TABLE 2 Organizational, staff and patient outcomes categorized by leadership style and management practices.

Leadership style	Outcome	Direction	Reference
Relational leadership			
Organizational outcomes	Organizational culture		
	Trust in organization	+	Niinihuhta & Häggman-Laitila, 2022; Wei et al., 2018
	Organizational culture	+	Cummings et al., 2018
	Perceived organizational support	+	Cummings et al., 2018; Wei et al., 2018
	Organizational citizenship behaviour	+	Alilyyani et al., 2018
	Organizational practices		
	Organizational work	+	Cummings et al., 2018
	Staffing	+	Cummings et al., 2018
	Working conditions	+	Wang & Dewing, 2021
	Safety organizing practices	+	Wang & Dewing, 2021
Staff outcomes	Commitment		
	Organizational commitment	+, −	Alilyyani et al., 2022; Cummings et al., 2018; Hussain & Khayat, 2021; McCay et al., 2018
	Intent-to-stay	+	Cowden et al., 2011; Cummings et al., 2018; Fowler et al., 2021
	Retention	+	Cummings et al., 2018
	Career turnover intention	−	Alilyyani et al., 2018
	Job turnover intention	−	Alilyyani et al., 2018
	Intent-to-leave	−	Cummings et al., 2018; James et al., 2021
	Turnover	−	Cummings et al., 2018; Wei et al., 2018
	Satisfaction and work engagement		
	Job satisfaction	+	Alilyyani et al., 2022; Alilyyani et al., 2018; Cummings et al., 2018; Fowler et al., 2021; Hussain & Khayat, 2021; James et al., 2021; McCay et al., 2018
	Career satisfaction	+	Alilyyani et al., 2018
	Work engagement	+	Alilyyani et al., 2018; Cummings et al., 2018
	Well-being at work		
	Well-being	+	Niinihuhta & Häggman-Laitila, 2022
	Psychological well-being	+	Alilyyani et al., 2018
	Mental health	+	James et al., 2021; Niinihuhta & Häggman-Laitila, 2022
	Physical health	+	Niinihuhta & Häggman-Laitila, 2022
	Vitality	+	Alilyyani et al., 2018; James et al., 2021
	Attachment security	+	Alilyyani et al., 2018
	Optimism	+	Alilyyani et al., 2018
	Psychological capital	+	Alilyyani et al., 2018
	Personal psychological states	+	Alilyyani et al., 2018
	Burnout	−	Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Niinihuhta & Häggman-Laitila, 2022; Wei et al., 2018
	Job stress	−	Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Niinihuhta & Häggman-Laitila, 2022
	Depressive symptoms	−	Wei et al., 2018
	Professional competence		
	Knowledge sharing	+	Alilyyani et al., 2018
	Learning	+	Alilyyani et al., 2018

TABLE 2 (Continued)

Leadership style	Outcome	Direction	Reference
	Employee extra role behaviour	+	Alilyyani et al., 2018
	Professional practice environment	+	Alilyyani et al., 2018
	Nursing professional practice culture	+	Alilyyani et al., 2018
	Areas of work life	+	Alilyyani et al., 2018
	Job performance	+	Alilyyani et al., 2018; James et al., 2021
	Productivity and effectiveness	+	Alilyyani et al., 2018; James et al., 2021
	Willingness to exert extra effort	+	Alilyyani et al., 2022; Cummings et al., 2018; McCay et al., 2018
	Professional growth	+	James et al., 2021
	Research capacity	+	James et al., 2021
	Person-job fit	+	Wei et al., 2018
	Identification	+	Alilyyani et al., 2018
	Team collaboration		
	Work-team climate	+	Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Wei et al., 2018
	Positive workplace relationships	+	Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Wei et al., 2018
	Collegial relationships	+	Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Wei et al., 2018
	High-quality social exchanges	+	Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Wei et al., 2018
	Teamwork between physicians and nurses	+	Cummings et al., 2018
	Interprofessional collaboration	+	Alilyyani et al., 2018
	Team innovation	+	Cummings et al., 2018
	Trust in co-workers and manager	+	Alilyyani et al., 2018; James et al., 2021; Wei et al., 2018
	Satisfaction with manager	+	Cummings et al., 2018; McCay et al., 2018
	Emotional intelligence	+	Fowler et al., 2021
	Social identity	+	Wei et al., 2018
	Team creativity	+	Alilyyani et al., 2018
	Followership	+	Alilyyani et al., 2018
	Psychological safety in team	+	Alilyyani et al., 2018
	Social capital	+	Alilyyani et al., 2018
	Sense of belonging	+	James et al., 2021
	Quality of work environment		
	Empowerment	+	Alilyyani et al., 2018; Cummings et al., 2018; James et al., 2021; Wang & Dewing, 2021; Wei et al., 2018
	Autonomy	+	Cummings et al., 2018
	Power	+	Cummings et al., 2018
	Ethical values and resolution of ethical dilemmas	+	James et al., 2021
	Decisional involvement	+	Alilyyani et al., 2018
	Conflict management	+	Cummings et al., 2018
	Civility	+	Wei et al., 2018
	Incivility	−	Alilyyani et al., 2018
	Workplace bullying	−	Alilyyani et al., 2018; Wei et al., 2018

(Continues)

TABLE 2 (Continued)

Leadership style	Outcome	Direction	Reference
Patient outcomes	Patient satisfaction		
	Patient satisfaction	+	Alilyyani et al., 2018; Cummings et al., 2018
	Quality of care	+	James et al., 2021
	Patient safety		
	Safety climate	+	Wong et al., 2013
	Medication errors	−	Wong et al., 2013
	Patient falls with injury	−	Alilyyani et al., 2018
	Pressure ulcers	−	Alilyyani et al., 2018
	Falls	−	Wong et al., 2013
	Adverse events	−	James et al., 2021; Wong et al., 2013
Task-oriented leadership			
Staff outcomes	Commitment		
	Organizational commitment	+, −	Cummings et al., 2018
	Well-being at work		
	Emotional health	−	Cummings et al., 2018
	Mental health	+	Niinihuhta & Häggman-Laitila, 2022
	Physical health	+	Niinihuhta & Häggman-Laitila, 2022
	Burnout	−	Cummings et al., 2018; Niinihuhta & Häggman-Laitila, 2022
	Job stress	+	Cummings et al., 2018
	Professional competence		
	Productivity and effectiveness	+	Alilyyani et al., 2018; James et al., 2021
	Willingness to exert extra effort	+	Alilyyani et al., 2022
	Satisfaction with manager	−	Cummings et al., 2018
	Quality of work environment		
	Empowerment	−	Cummings et al., 2018
	Ethical values and resolution of ethical dilemmas	+	McCay et al., 2018
	Conflict management	−	Cummings et al., 2018
Patient outcomes	Patient satisfaction		
	Patient satisfaction	+	Cummings et al., 2018; Wong et al., 2013
Passive leadership			
Staff outcomes	Commitment		
	Organizational commitment	−	Alilyyani et al., 2022; Cummings et al., 2018
	Intent-to-stay	−	Cowden et al., 2011; Cummings et al., 2018
	Retention	−	Cummings et al., 2018
	Intent-to-leave	+	McCay et al., 2018
	Satisfaction and work engagement		
	Job satisfaction	−	Alilyyani et al., 2022; Alilyyani et al., 2018; Cummings et al., 2018; McCay et al., 2018
	Well-being at work		
	Emotional health	−	Cummings et al., 2018
	Mental health	−	Niinihuhta & Häggman-Laitila, 2022
	Burnout	+, −	Wei et al., 2018
	Job stress	+	Cummings et al., 2018; Niinihuhta & Häggman-Laitila, 2022
	Professional competence		
	Productivity and effectiveness	−	Cummings et al., 2018

TABLE 2 (Continued)

Leadership style	Outcome	Direction	Reference
	Willingness to exert extra effort	−	Alilyyani et al., 2022
	Satisfaction with manager	−	Cummings et al., 2018; McCay et al., 2018
	Quality of work environment		
	Empowerment	−	Cummings et al., 2018
Destructive leadership			
Staff outcomes	Commitment		
	Intent-to-stay	−	Cowden et al., 2011
	Intent-to-leave	+	Cummings et al., 2018
	Well-being at work		
	Burnout	+	Niinihuhta & Häggman-Laitila, 2022
	Psychological stress	+	Niinihuhta & Häggman-Laitila, 2022
Management practice	**Outcome**	**Direction**	**Reference**
Manager-related practices			
Staff outcomes	Job satisfaction	+	McCay et al., 2018
	Burnout	−	Cummings et al., 2018
	Job stress	−	Cummings et al., 2018
	Team collaboration	+	Cummings et al., 2018
	Teamwork between physicians and nurses	+	Cummings et al., 2018
Patient outcomes	Error reporting	+	Fowler et al., 2021
	Patient mortality	−, ns	Wong et al., 2013
	Complications	−	Wong et al., 2013
	Adverse events	−	Wong et al., 2013
	Healthcare utilization	ns	Wong et al., 2013
Community-related practices			
Organizational outcomes	Working conditions	+	Wang & Dewing, 2021
	Safety organizing practices	+	Wang & Dewing, 2021
Staff outcomes	Intent-to-stay	+	Cowden et al., 2011
	Retention	+	Cummings et al., 2018
	Intent-to-leave	−	Cummings et al., 2018
	Turnover	−	Cummings et al., 2018
	Job satisfaction	+	Fowler et al., 2021; McCay et al., 2018
	Burnout	−	Cummings et al., 2018; Wei et al., 2018
	Job stress	−	Cummings et al., 2018
	Nurses' perceptions of quality of care	+	Fowler et al., 2021
	Team collaboration	+	Cummings et al., 2018; Fowler et al., 2021
	Empowerment	+	Wei et al., 2018
Patient outcomes	Patient satisfaction	+	Wong et al., 2013
	Quality of care	+	Fowler et al., 2021
	Medication errors	−	Wong et al., 2013
	Length of stay	−	Wong et al., 2013
Organization-related practices			
Organizational outcomes	Trust in organization	+	Wei et al., 2018
Staff outcomes	Intent-to-stay	+	Cowden et al., 2011; Fowler et al., 2021
Patient outcomes	Patient safety culture	+	Wei et al., 2018

Abbreviations: +, positive association; −, negative association; ns, non-significant.

more likely to leave the organization (Cowden et al., 2011; Cummings et al., 2018); this type of leadership was also associated with higher incidence burnout and psychological stress among nursing staff (Niinihuhta & Häggman-Laitila, 2022).

Manager-related management practices had positive effects on nursing staff by increasing nurses' job satisfaction (McCay et al., 2018), decreasing burnout and stress (Cummings et al., 2018) and enhancing team collaboration (Cummings et al., 2018). *Community-related* practices, for example, increased intent-to-stay (Cowden et al., 2011), improved job satisfaction (Fowler et al., 2021; McCay et al., 2018), decreased burnout (Cummings et al., 2018; Wei et al., 2020), and enhanced team collaboration (Cummings et al., 2018; Fowler et al., 2021) among nursing staff. *Organization-related* practices were found to exert a positive effect on nurses' intent-to-stay (Cowden et al., 2011; Fowler et al., 2021).

3.4.3 | Nursing leadership styles and management practices related to patient outcomes

Relational leadership styles (Table 2) were associated with better patient outcomes; more specifically, patient satisfaction (Alilyyani et al., 2018; Cummings et al., 2018), quality of care (James et al., 2021) and safety climate (Wong et al., 2013). Also, relational leadership decreased medication errors and adverse events (Alilyyani et al., 2018; James et al., 2021; Wong et al., 2013). *Task-oriented leadership styles* were also associated with patient satisfaction (Cummings et al., 2018; Wong et al., 2013).

Manager-related practices increased error reporting (Fowler et al., 2021) and decreased adverse events (Wong et al., 2013). These practices demonstrated negative or non-significant outcomes for patient mortality and non-significant outcomes for healthcare utilization (Wong et al., 2013). *Community-related* management practices were related to increased patient satisfaction (Wong et al., 2013) and quality of care (Fowler et al., 2021), decreased medication errors, and shorter length of hospitalization (Wong et al., 2013). *Organization-related* management practices were found to enhance patient safety culture (Wei et al., 2020).

3.5 | Mediating factors

In addition to direct outcomes, the identified reviews reported numerous mediating factors between relational leadership styles and staff (Alilyyani et al., 2018; Hussain & Khayat, 2021; Niinihuhta & Häggman-Laitila, 2022; Wei et al., 2020) and patient (Alilyyani et al., 2018; Wang & Dewing, 2021; Wong et al., 2013) outcomes. The most commonly reported mediators were structural empowerment, job satisfaction, trust in the manager, areas of worklife and staff expertise. Structural empowerment was found to mediate the positive association between relational leadership styles and staff satisfaction and engagement, well-being at work, professional competence, team collaboration, quality of work environment, along with patient satisfaction and safety (Alilyyani et al., 2018; Niinihuhta & Häggman-Laitila, 2022; Wang & Dewing, 2021; Wong et al., 2013). Job satisfaction mediated the positive impact of relational leadership on staff commitment, well-being at work, and patient satisfaction and safety (Alilyyani et al., 2018; Niinihuhta & Häggman-Laitila, 2022; Wang & Dewing, 2021). Trust mediated the positive effect of relational leadership on staff commitment, satisfaction, engagement and well-being at work (Alilyyani et al., 2018; Wei et al., 2020). Furthermore, aspects of worklife were found to mediate the effect of relational leadership on staff satisfaction and engagement, well-being at work and quality of work environment (Alilyyani et al., 2018; Niinihuhta & Häggman-Laitila, 2022; Wei et al., 2020). Staff expertise mediated the positive effect of relational leadership styles on patient safety (Wong et al., 2013).

3.6 | Synthesis of the results in a hypothetical model

The results of this systematic review of reviews showed that relational leadership styles, which involve supportive and inclusive manager practices, are associated with positive organizational, staff and patient outcomes. Meanwhile, task-oriented styles showed mixed outcomes, whereas passive and destructive leadership styles were associated with negative outcomes. We propose a hypothetical model that also presents the financial consequences of the outcomes of various leadership styles; this preliminary model can be used to build further understanding of which leadership approaches are aligned with the effectiveness of a healthcare organization (Figure 2). The figure shows how organizations may financially benefit from applying relational leadership and, on the other hand, suffer due to detrimental leadership styles. The model builds on the idea that improvements in staff health and well-being will reduce costs at an organization. This is because enhanced health and well-being will reduce absences due to sickness and disability, which cause statistically significant costs to healthcare organizations.

4 | DISCUSSION

This systematic review of reviews synthesized a total of 85 organizational, staff and patient outcomes for 36 distinct leadership styles and 24 management practices among nurse leaders. The most studied leadership style was transformational leadership, which is positively associated with an organization's culture and practices, nursing staff members' personal and work-related outcomes and—to some extent—patient satisfaction and safety. The included reviews principally reported staff outcomes, of which the most statistically significant was job satisfaction. These results revealed several shortcomings in nursing leadership research, which are discussed in more detail below. Furthermore, we identified several factors, which mediated the effect of nursing leadership on staff and patient outcomes.

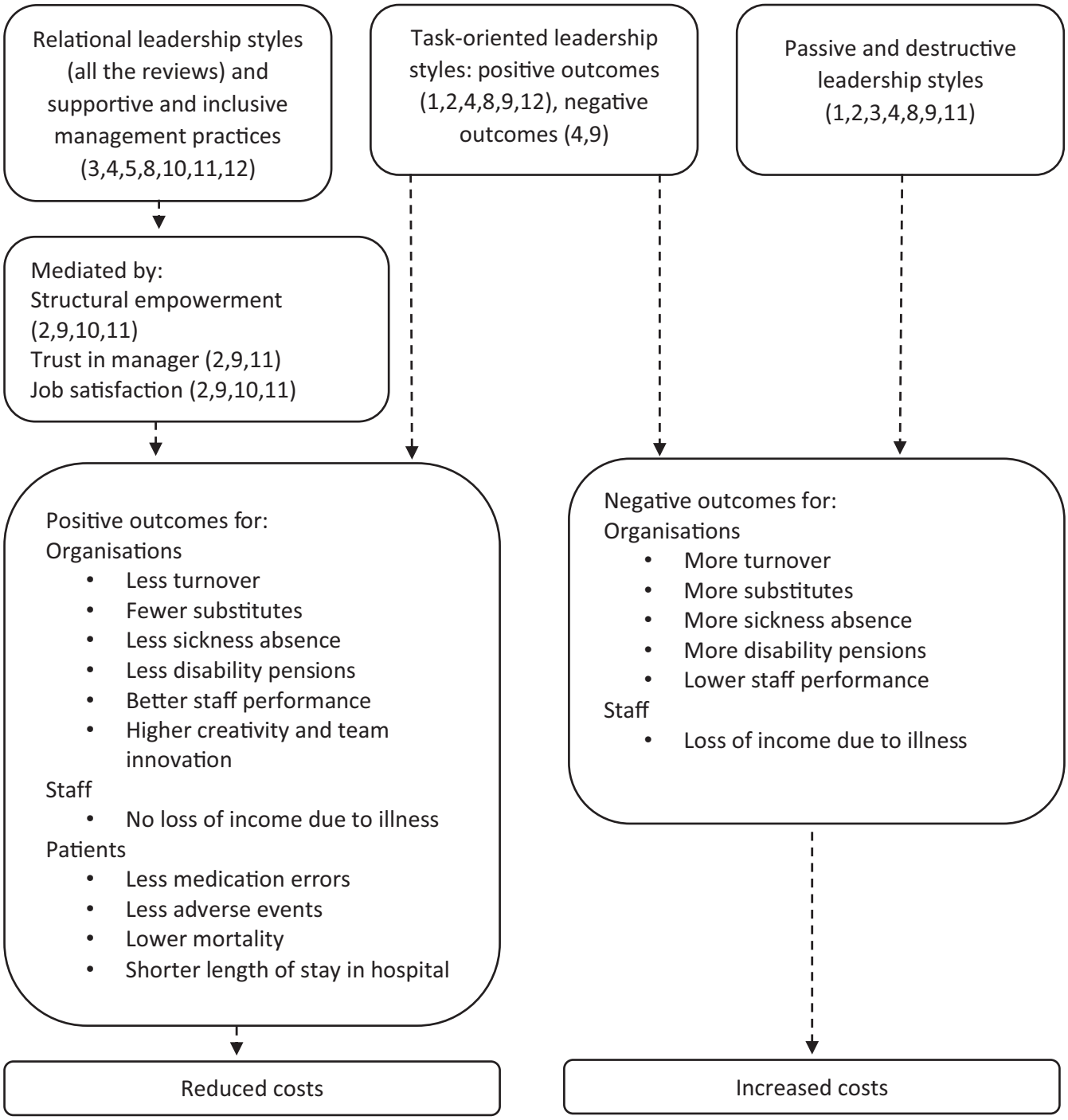

FIGURE 2 Hypothetical model of the effects of the nursing leadership on the organizational, staff and patient outcomes and of the cost consequences (numbers refer to Study IDs in Table 2).

The results of this study are well aligned with what has been reported in previous studies in that relational leadership styles, especially transformational leadership, are the main focus of recent nursing leadership research (e.g. Ferreira et al., 2022). Results also show substantial positive effects of transformational leadership style on organizations, staff and patients, as is the case in the literature body as well (e.g. Seljemo et al., 2020). However, results present dozens of various leadership styles, which were grouped as relational leadership styles. A conceptual examination of these relational leadership styles is necessary for accurately describing and operationalizing this branch of leadership. This could lead to a reduction in the instruments currently applied to relational leadership styles, and subsequently, improve the comparability of results.

Task-oriented leadership styles were associated with both positive and negative outcomes in the reviews identified through the literature search strategy. This is consistent with earlier findings, as other authors have also shown that the task-oriented leadership style is associated with a higher quality of care in healthcare settings

(Sfantou et al., 2017). Furthermore, certain authors have suggested that transactional leadership could advance patient satisfaction, help implement strategies for preventing medication errors, foster learning from patient safety events, and enhance organizational learning (V. Hughes, 2019; Sfantou et al., 2017). On the other hand, results showed that transactional leadership is associated with increased stress among staff and decreased satisfaction with the manager. Thus, the presented findings support that a specific leadership style should be chosen depending on the context and objectives (Ferreira et al., 2022); as such, a nurse leader should be able to apply different leadership styles over short-term periods, for example during an acute crisis such as the COVID-19 pandemic. However, healthcare organizations should strive to implement relational leadership as a way to improve organizational functioning and become an increasingly attractive workplace (Cummings et al., 2018).

Only a few of the identified studies addressed destructive leadership styles, which does not mean that these styles are not applied by nurse leaders (Majeed & Fatima, 2020). Destructive leadership has emerged as a topic of interest in the past few years (Labrague, 2021). These styles should be studied to a further extent to provide evidence concerning how this detrimental leadership practice can be easily recognized and reversed. It is also important to note the lack of research evidence on destructive leadership may lead to certain biases in nursing leadership research. However, it may be challenging to study this type of leadership due to a lack of participating organizations and nurses' cautiousness to participate in such surveys.

The present review also identified several management practices that were related to organizational, staff and patient outcomes. According to the results, organizations need to develop communication (Cummings et al., 2018; Fowler et al., 2021; Wong et al., 2013), feedback (Fowler et al., 2021), rewards (Cowden et al., 2011; Fowler et al., 2021) and involvement in decision-making (Cowden et al., 2011) for better outcomes. However, none of the reviews examined how the competencies and job descriptions of nursing leaders are related to certain outcomes; hence, this is a future avenue for research.

Management practices, together with mediating factors, enhance the influence of nursing leadership on staff, organizational and patient outcomes. The included reviews reported that the beneficial outcomes of relational leadership styles were mediated by several factors (Alilyyani et al., 2018; Hussain & Khayat, 2021; Niinihuhta & Häggman-Laitila, 2022; Wei et al., 2020). The most commonly studied mediators were nursing staff members' structural empowerment, job satisfaction and trust in the leader. It is notable that the outcome mediated by these factors was often patient outcomes, for example self-assessed patient satisfaction and patient safety, a finding which is in line with other healthcare studies (Wang & Dewing, 2021). This is statistically significant because patient results were rarely reported in the identified reviews when compared to staff outcomes. Thus, promoting structural empowerment, job satisfaction and trust in a leader among nursing staff could enhance the benefits of relational leadership. Patient outcomes should be further studied with other indicators since high-quality patient care is the ultimate goal of healthcare services. For example, unfinished or missed nursing care was not addressed in the included reviews.

We created a hypothetical model that demonstrates the financial repercussions of various nursing leadership styles. It is noteworthy that none of the included reviews covered financial outcomes. This is surprising, as there is an expense, albeit often indirect, for many staff and patient outcomes. For instance, passive or destructive leadership was reported to decrease job satisfaction and the motivation of nurses. In the case that this becomes a permanent condition, it may lead to burnout and, at worst, depression and long-term sick leave. Additional consequences could include intent-to-leave and resignations among nurses. In both cases, organizations lose both money and part of their most precious capital, capable workers. It is also important to note that the costs associated with sick leave, employee turnover and several patient outcomes, for example, falls, are well established (Severin et al., 2022). Nursing leadership research needs a more comprehensive theoretical framework that will demonstrate all of the relevant aspects, including cost-effectiveness and the most critical mediating and intervening factors. Although confirming the theoretical framework would be empirically challenging, it would nevertheless strengthen nursing practice.

In addition to the economic evaluation of nursing leadership and management outcomes, future studies should assess the occupational well-being of nurse managers. In addition, factors that affect the retention of nurse managers should be studied due to concerns about the turnover of managers (Warden et al., 2021). This type of research would be relevant, as there is a need to map out the organizational measures that can be used to support nursing managers (Cummings et al., 2021). Nursing management does not solely consist of unidirectional actions, but the role and working life skills of the staff must also be studied when aiming towards better organizational, staff and patient outcomes. Finally, nursing management research should be able to form an overall picture of the demanding leadership domain. In addition to relevant content, nursing management should be examined through longitudinal designs and intervention studies. The reviews included in this review mainly included cross-sectional studies and the results were descriptive and based on self-reported measures. More patient and human resources registers could be used in management research; however, it may be that surveys provide the most reliable results about leadership styles and management practices.

4.1 | Limitations

The main strength of this review of reviews was that the research was based on a systematic process, including a protocol, which was already registered in the PROSPERO database of protocols for systematic reviews. We did not set any restrictions in the search phase for publication year and language. However, some of the reviews were excluded because of language as we could not assess whether these reviews fulfilled the inclusion criteria. Also, the time frame of

the included studies was statistically significant; therefore, the understanding of leadership might have changed. The inclusion criteria were strict, and a review had to report the search strategy and quality appraisal method, both of which strengthen the reliability of any presented results. Nevertheless, the quality of the included reviews varied noticeably, and the original studies included—in certain cases—low degrees of evidence; however, it should be stated the results reported in the reviews were strongly parallel. However, it has to be noticed, that not including scoping reviews may have led to excluding studies suitable for the topic. The heterogeneity of relational leadership styles and the different measurement instruments could also be considered a limitation because it was impossible to identify which of the styles was most influential. Last, it should be stated that although a comprehensive search strategy was employed, there is the possibility that some relevant studies were left out.

5 | CONCLUSIONS

This systematic review of reviews synthesized outcomes from studies published over the last 10 years. The results revealed that the focus of current nursing leadership research has largely been relational leadership; at the same time, the findings highlighted certain research areas that have been overlooked. There is extensive research evidence about the beneficial impacts of relational leadership styles on organizational, staff and patient outcomes, yet a clear lack of data regarding how destructive leadership impacts these same outcomes. This type of evidence would be crucial to alleviating the burden of nursing staff and increasing the attractiveness of the nursing profession. In addition to destructive leadership styles, it would be important to strengthen the research on other leadership-related issues, such as leadership practices, competencies, job descriptions and structural empowerment to gain further insight into which factors influence leadership. The presented hypothetical model should also be critically assessed and tested in the near future to determine whether it is applicable to healthcare organizations.

A thorough concept analysis would clarify the features of relational leadership and potentially lead to a consensus about how many specific styles and instruments should be used when studying this topic. This would allow nursing leadership research to better focus on the core areas of leadership, and result in findings that would be comparable and applicable in practice. Nursing leadership research should also highlight patient outcomes alongside staff outcomes, as patient care is the primary function of health care. Based on the results of this review, we would suggest that future nursing research use sophisticated methods that can sufficiently consider various perspectives of this multi-faceted phenomenon.

6 | RELEVANCE TO CLINICAL PRACTICE

This review found that a transformational leadership style is associated with positive staff and patient outcomes. Therefore, nurse leaders should receive leadership training that provides supportive, empowering and relational leadership skills. However, nursing leadership is a complex phenomenon that not only constitutes a leadership style but is also affected by organizational factors, the environment and the staff. For this reason, the effects of a specific leadership approach cannot be linearly inferred but must take into account myriad factors.

AUTHOR CONTRIBUTIONS

All the authors conceived the study, participated in the study selection process and quality appraisal and critically reviewed the manuscript. MH and AT-M extracted and analysed the data. MH drafted the manuscript, and AH-L supervised the study.

ACKNOWLEDGEMENTS

None.

FUNDING INFORMATION

No external funding.

CONFLICT OF INTEREST STATEMENT

None.

ETHICS STATEMENT

This systematic review of reviews used data from previously published reviews; therefore, no ethical approval was required.

ORCID

Marja Hult https://orcid.org/0000-0002-2020-5914
Anja Terkamo-Moisio https://orcid.org/0000-0003-1483-1238

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Hult, M., Terkamo-Moisio, A., Kaakinen, P., Karki, S., Nurmeksela, A., Palonen, M., Peltonen, L.-M., & Häggman-Laitila, A. (2023). Relationships between nursing leadership and organizational, staff and patient outcomes: A systematic review of reviews. *Nursing Open*, *00*, 1–17. https://doi.org/10.1002/nop2.1876