

# Nurses' Leadership in the Work: A Systematic Review

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## Abstract

**Background:** Nurse leadership has a significant impact on the healthcare team's ability to produce good patient outcomes.

**Objective:** The objective of this research is to determine what strategies are most useful for empowering nurses to take on leadership roles in a hospital setting.

**Method:** A systematic literature review was conducted, utilising Preferred Reporting Items for Systematic Reviews (PRISMA). The databases that were featured are PubMed, CINAHL, and Google Scholar from 2011 to 2023. A quality appraisal was used to assess the quality of the studies.

**Result:** There were 97 articles found in a literature search. A total of eight articles met the inclusion criteria.

**Conclusion:** The evidence shows that interventions to improve nurses' leadership are complex and need to address cognitive, interpersonal as well as psychological empowerment, emotional intelligence, and critical reflexivity skills. Multicomponent, theory-based, and mixed-format programmes may be better suited to facilitate nurses' leadership in the hospital setting.

**Nursing implications:** Efforts to improve nurses' clinical leadership in healthcare settings should take into account both their theoretical understanding of the issue and their actual experience in finding workable solutions through teamwork. As a result, it would encourage high-quality care, nurse satisfaction, and nurse retention.

**Keywords:** clinical nurse; intervention; leadership

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## Background

Nursing is a tough profession that requires great role models and mentors who can inspire and motivate their co-workers. Nurse leadership is the term used to describe nurses who, despite not having formal authority, influence the rest of the healthcare team to improve patient outcomes (Chávez and Yoder 2015). Bedside nurses are in a prime position to see problems, inspire the rest of the care team to take action, and spearhead initiatives to address issues that develop in the clinical context. For the delivery of optimal patient care, they can also spot inefficiencies linked to organisational structures, processes, rules and procedures (Doherty 2014). Nurses perform a crucial leadership role in hospitals, where patient care is getting more complex with more demanding and high-acuity patients, shorter periods of stay, and staffing shortages (Daly et al. 2014).

As preceding factors, personal growth and cooperation, excellence in nursing, creative problem-solving, influence, and individual maturity are characteristics of nursing leadership. Additionally, the formation of mutual trust relationships and the requirements of the job have been identified as antecedent factors (Qtait 2023a). Nurse leaders can be found in a wide variety of health organisations (Stanley and Stanley 2018). Because of factors like shorter hospital stays, increased patient acuity, and a lack of available staff, modern hospital treatment has become increasingly complex. In these institutions, nurses play an essential managerial role (Daly et al. 2014).

It is essential to encourage leadership among frontline nurses due to the potential impact that these nurses have on the outcomes and experiences of their patients (O'Donovan et al. 2021).

There is a void in the literature regarding the identification and measurement of effective interventions for the development of leadership skills among clinical nurses working in hospital settings. To the best of my knowledge, no systematic review of this topic has been conducted. In a recent systematic literature review (Mianda and Voce 2018), interventions for clinical leadership among frontline healthcare clinicians were the primary emphasis. Leaders in the nursing profession play an important role in ensuring that their teams fully comprehend the needs and values of their patients (Qtait 2023b).

The hospital setting and patient health outcomes are both impacted by nurses' leadership abilities (Daly et al. 2014). Consequently, this systematic literature review will benefit the healthcare system and service customers by identifying and analysing data on effective interventions for the development of nurses' leadership qualities. This insight will aid in determining which interventions are most useful in fostering clinical nurses' leadership abilities, and in turn will improve resource allocation and programme design. In light of this need, the researcher behind this systematic review set out to determine what measures have been most useful in empowering nurses to take on leadership roles in healthcare settings.

## Methodology

This systematic review of studies was designed through a PRISMA statement (Hutton et al. 2015) to summarise the current research on nurses' leadership in the workplace.

### Method of Search

In February of 2023, a systematic review of studies published in PubMed, CINAHL, and Google Scholar was conducted (Staff Leadership OR Frontline Leadership OR Ward Leadership OR Medical Professional Leadership, OR Hospital Leadership). The terms "intervention," "clinical leadership," and "nursing" were coupled using the Boolean operators "AND" and "OR" for these computerised searches. To increase search sensitivity and prevent the omission of pertinent studies, MeSH terms and keywords from the selected studies were employed. Due to the uncertainty of the phrase "clinical leadership" and its recent usage, a variety of other terms with the same meaning were added. The following restrictions were imposed: English language; publishing years ranging from 2011 through 2023 February.

**Table 1:** Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> <li>• Studies, both experimental and quasi-experimental, on interventions that support nurse leadership on the part of nurses.</li> <li>• The study between 2012 and 2023 had to be on February 20th collection of the study data for 10 years.</li> </ul>	<ul style="list-style-type: none"> <li>• No answer to search question.</li> <li>• Employ other not nurse.</li> <li>• Language not English.</li> <li>• Qualitative or descriptive research.</li> </ul>

### Evaluation Quality for Study

The selected papers were appraised by the author on his own accord using the methodological quality criteria outlined in PRISMA for systematic reviews (Urrútia and Bonfill 2010) and TREND for quasi-experimental research (Haynes, Haukoes, and Dimick 2021). The latter were given grades of "yes," "no," "unclear," or "not applicable." For each study, a total score was determined by adding all of the "yes" responses on the checklists used for assessment (i.e., 17, 18 or 19). Studies scoring at or below the median on more than half of the items were classified as having substantial bias and poor methodological quality. High quality research was awarded greater points. There were no studies that were not included in the final analysis.

### Abstraction of Data

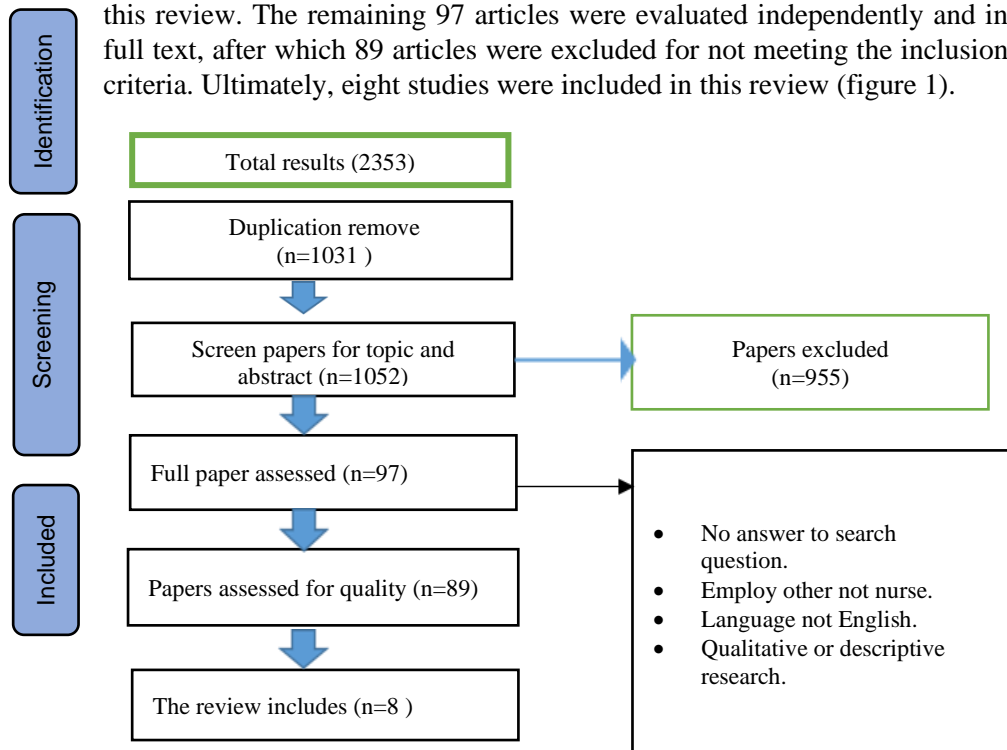
Common components of nurse manager development programmes identified by Ullrich et al. (2021) were used to classify the characteristics of nurses' clinical leadership intervention programmes according to the competencies adapted from the American Organization for Nursing Leadership (AONL): "The Science": cognitive, "The Art": interpersonal, and "The Leader Within": intrinsic (AONL 2015).

## Synthesis

The research aims, methods, samples, intervention features, assessment tools, and primary findings were all taken into account as part of the data analysis. The findings were consolidated by examining how treatments were formulated, the tactics employed, and the impact they had on fostering nurse leadership.

## Outcome Searches

In the initial search, 2 353 studies were identified. After removing duplicates (n=1031), the abstracts of 1 052 articles were examined for their potential inclusion in the systematic literature review, of which 955 were considered irrelevant for the purpose of this review. The remaining 97 articles were evaluated independently and in full text, after which 89 articles were excluded for not meeting the inclusion criteria. Ultimately, eight studies were included in this review (figure 1).



**Figure 1:** For PRISMA

## Results

### Study Characteristics

The primary features of studies used in this analysis are summarised in table 2. One of the six publications was a systematic review that incorporated 17 pre-post investigations, and the rest were either pre-post studies or quasi-experimental research. Australian researchers (Leggat et al. 2016) conducted one of the eight studies, while their American counterparts did the others (Abraham 2011; Chappell and Richards

2015; Fitzpatrick et al. 2016; Hamed, Eid, and Hasanin 2023; MacPhee et al. 2014; Mushtaq, Hussain, and Parveen 2022, Shen et al. 2018; Xie, Ding, and Zhang 2021).

<b>Table 2: Characteristics of studies</b>					
<b>Author Year</b>	<b>Country</b>	<b>Sample and design</b>	<b>Objective</b>	<b>Method of intervention</b>	<b>Instrument</b>
Xie et al. 2021	China	60 head nurses and 240 clinical nurses; quasi-experimental study	To see how head nurses and clinical nurses react to a patient safety leadership programme	Education programme; Pre and post-test	Leadership Behaviour Assessment Scale
Leggat et al. 2016	Australia	Pre-post intervention study for 34 nurses	Clinical leadership training for government healthcare workers; goal to raise standards for patient care while reducing risk to staff	Face-to-face online	Leadership Practices Inventory Questionnaire Spreitzer Scale
MacPhee et al. 2014	American	Quasi-experimental study 27 frontline nurses	To learn if there is an increase in leaders' utilisation of empowerment behaviours after participating in the NLI programme.	Format: online and Nursing Leadership Institute Programme	Leader Empowerment Behaviours Scale Questionnaire
Hamed et al. 2023	Egypt	A convenience sample of 45 head nurses A quasi-experimental design	To help head nurses improve their situational leadership and emotional intelligence and see how that affects their management skills.	Education programme Pre and post-test	Situational Leadership and Emotional Intelligence Knowledge Questionnaire. Situational leadership scale
Fitzpatrick et al. 2016	American	Quasi-experimental design 78 nurses	Examining frequency with which participants engaged in leadership practices and significance they attached to various leadership behaviours prior to and after Leadership Education and Development course.	Leadership Education and Development programme; online and face-to-face; group individual.	Leadership Practices Inventory Questionnaire
Shen et al. 2018	American	Quasi-experimental design 36 nurses	Purpose: To assess Kansas Nurse Leader Residence programme's contribution to the education and development of nurse leaders.	Kansas Nurse Leader Residence programme, online and face-to-face; group individual	Knowledge-sharing Infrastructure Questionnaire
Mushtaq et al. 2022	Pakistan	Quasi-experimental design 576 nurses and head nurse	The goal of this study is to evaluate the effect that transformational leadership training had on the performance of registered nurses in charge.	Presentations, role plays, scenario exercises developed for use in training programmes with reference to relevant literature and textbooks (Broome 2020)	A multifactor Leadership Questionnaire
Abraham 2011	American	Quasi-experimental design 15 nurses	To figure out how well the nursing leadership perspectives programme teaches people how to be leaders and act professionally.	Nursing Leadership Perspectives Programme; online and face-to-face; group individual	Leadership Practices Inventory; Questionnaire

**Table 3:** Quality of study

Study	Instruments	Quality of study	Reliability Cronbach's alpha
Abraham 2011	Leadership Practices Inventory	Trend Statement: 18/22	0.95
Fitzpatrick et al. 2016	Leadership Practices Inventory	Trend Statement: 19/22	0.95
Leggat et al. 2016	Leadership Practices Inventory	Trend Statement: 19/22	0.95
Xie et al. 2021	Leadership Behaviour Assessment Scale	Trend Statement: 18/22	0.95
Mushtaq et al. 2022	Leadership Practices Inventory	Trend Statement: 17/22	0.95
Shen et al. 2018	A Multifactor Leadership Programme	Trend Statement: 17/22	-
Hamed et al. 2023	Situational Leadership and Emotional Intelligence Knowledge Questionnaire. Situational Leadership Scale	Trend Statement: 18/22	0.95
MacPhee et al. 2014	Leader Empowerment Behaviours Scale	Trend Statement: 18/22	0.95

### Quality of Study

Study quality in terms of methodology is summarised in table 2. Six of the studies were of moderate quality, while two were of high quality. According to the criteria examined for each study type, the most frequent problems were related to a lack of theories used in designing behavioural interventions, an inadequate description of the settings in which data were collected, and a lack of follow-up, as well as a description and analysis of differences between groups in the follow-up.

### Results of Studies

A number of strategies to increase nurses' capacity for clinical leadership in healthcare settings are revealed by a systematic evaluation of the literature. The primary findings are organised into three parts based on whether or not they pertain to the competencies addressed by the interventions, the methods employed, or the evaluation of the interventions.

#### *Interventions to Promote Leadership*

In eight studies, cognitive abilities were identified as a fundamental component of the programmes designed to foster nurses' clinical leadership (Abraham 2011; Fitzpatrick et al. 2016; Hamed et al. 2023; Leggat et al. 2016; MacPhee et al. 2014; Mushtaq et al. 2022; Shen et al. 2018; Xie et al. 2021).

### *Competencies Cognitive*

Problem-solving, sound judgment and mastery of one's own learning and behaviour are all made possible through the cultivation of these skills (Abraham 2011; Fitzpatrick et al. 2016; Leggat et al. 2016; MacPhee et al. 2014; Shen et al. 2018). To facilitate the application of newly gained leadership skills, research has combined online and/or face-to-face training sessions with discussion groups and role-play activities (Chappell and Richards 2015; Leggat et al. 2016; MacPhee et al. 2014; Mushtaq et al. 2022; Shen et al. 2018; Xie et al. 2021).

Nurses' decision-making abilities, their capacity to lead change within inpatient services, and, ultimately, their sense of empowerment at the bedside are all enhanced by programmes that focus on these competencies (Fitzpatrick et al. 2016; Hamed et al. 2023; Shen et al. 2018; Xie et al. 2021). The bedside leaders in hospitals can benefit from these skills since they help pinpoint areas for practice improvement and drive transformation.

### *Interpersonal Abilities*

Interpersonal competencies, defined as the "personal talents and social skills with which one may develop stable and productive connections with other people, including patients, families, and professionals," are another set of critical abilities (Abraham 2011; Fitzpatrick et al. 2016; Leggat et al. 2016; MacPhee et al. 2014; Mushtaq et al. 2022; Shen et al. 2018). Mentoring and positive team reinforcement are two methods used to foster these skills.

Four research studies, however, used team reinforcement systems to improve relationships at work (Fitzpatrick et al. 2016; Leggat et al. 2016; MacPhee et al. 2014; Shen et al. 2018). Most notably, Joyce Fitzpatrick et al. (2016) instituted an innovative technique to improve teamwork within inpatient service units; they dubbed it REJOICE (respect, empathy, individuality, collaboration, expression). Participating in committees and mentoring new employees were also part of this plan, as was acknowledging a co-worker who had had a great impact on someone's day (Fitzpatrick et al. 2016). As a result of these efforts, inpatient services as a whole now share the same goal and make decisions together; there is clear and consistent communication; and the workplace is a healthy and stimulating place to work (Leggat et al. 2016; Shen et al. 2018).

### *Competencies Intrinsic*

Each of the analysed research studies (Abraham 2011; Fitzpatrick et al. 2016; Hamed et al. 2023; Leggat et al. 2016; MacPhee et al. 2014; Mushtaq et al. 2022; Shen et al. 2018; Xie et al. 2021) emphasises the importance of these competencies in developing clinical leadership among nurses providing patient care.

There is a close relationship between the aforementioned competencies and the intrinsic competencies that represent a person's values and determine how that person positions



herself and responds to events. Three intrinsic qualities, specifically, have been identified as favourable to clinical leadership based on the reviewed literature: 1) psychological empowerment (Leggat et al. 2016; MacPhee et al. 2014); 2) emotional intelligence (Leggat et al. 2016); and 3) critical reflexivity (Hamed et al. 2023; MacPhee et al. 2014; Shen et al. 2018; Xie et al. 2021). It is important to highlight that while all programmes develop some of these skills, none develop all three.

By “psychological empowerment” we mean the capacity for each nurse to exercise self-discipline, choose for herself, and accept the results of her actions. For instance, the Effectiveness Conditions Scale course used simulated lectures and clinical examples to foster this talent (Leggat et al. 2016; MacPhee et al. 2014). Programmes that foster this ability have been shown to have a beneficial effect on both the individual and organisational levels, resulting in a rise in nurses’ perceptions of themselves and their dedication to their jobs (Leggat et al. 2016; MacPhee et al. 2014).

#### *Structure for Creating Programmers*

Half of the evaluated articles (Abraham 2011; MacPhee et al. 2014; Shen et al. 2018) are explicit about the theories that inform the design of nurse clinical leadership interventions, whereas the other half are not (Hamed et al. 2023; Fitzpatrick et al. 2016; Leggat et al. 2016; Xie et al. 2021). For the creation of the nursing clinical leadership course, Shen et al. (2018) refer to the AONL competency model as the foundation for the learning domain structure. To create their respective courses, MacPhee et al. (2014) and Hamed et al. (2023) refer to the social psychological theory-based conceptual framework of psychological empowerment of leadership. To the same end, Abraham (2011) grounds his intervention in Ernest Boyer’s theory, using it as a map to connect the goals of the programme with the professionals’ actual learning experiences.

#### *Intervention and Context of Use*

Studies (Abraham 2011; Fitzpatrick et al. 2016; Hamed et al. 2023; MacPhee et al. 2014; Shen et al. 2018) focused on interventions directed at care nurses, whereas only one study incorporated other health professionals (Leggat et al. 2016).

Recent graduates (Hamed et al. 2023; Xie et al. 2021), those with one year of experience (Fitzpatrick et al. 2016), and those with at least five years of experience were all represented among the care nurses assessed (Abraham 2011). Both Shen et al. (2018) and Leggat et al. (2016), who did not reveal the average years of experience of the nurses in their studies, stressed the importance of the nurses’ subject-matter competence.

All of the interventions have been conducted in hospitals, but two of the papers only briefly mention that the studies took place in an acute and/or long-term setting (Leggat et al. 2016; Shen et al. 2018).

### *Leadership Interventions' Efficiency*

Valid and accurate measurement instruments are required to evaluate the success of these initiatives in developing nurse leaders. In the context of this paper, an instrument is any questionnaire, scale, test, or functional test used to evaluate the aforementioned interventions. Table 2 lists the identified instruments, together with their contexts of use and reliability, as found in the examined literature.

The majority of these were broad in scope, either because of the inpatient or outpatient settings in which they were created, or because of the specificity of the field in which they were applied. None, however, evaluated all the competencies and skills thought to be essential in a therapeutic leadership intervention. It is important to note that none of the research included patient outcome measures to see if the interventions to improve nurses' clinical leadership improved patient safety or quality.

Given the many competencies, procedures, and instruments used to evaluate the outcomes, it is impossible to say which intervention is better at fostering clinical leadership. Nonetheless, it is worth noting that after applying the intervention, significant gains were made in all the studies in terms of: 1) knowledge, skills, and leader empowerment behaviours (Leggat et al. 2016; MacPhee et al. 2014); 2) emotional intelligence (Leggat et al. 2016); and 3) critical reflexivity (Hamed et al. 2023; MacPhee et al. 2014; Shen et al. 2018; Xie et al. 2021). Knowledge and abilities improved, particularly in the areas of decision-making, negotiating, and communication (Shen et al. 2018). Abraham (2011) also saw a marked improvement in professional conduct after completing the training. They mentioned, for instance, that participants' leadership involvement in units and departmental committees, workgroups, and councils rose.

Publishing an article, starting a research study, and leading practice initiatives as staff nurses to enhance the quality and safety of patient care are also examples of empowerment behaviours (Abraham 2011). However, it should be noted that after implementing the intervention, there were significant gains in knowledge, skills, and leader empowerment behaviours across all studies (Abraham 2011; Chappell and Richards 2015; Fitzpatrick et al. 2016; Leggat et al. 2016; MacPhee et al. 2014; Shen et al. 2018). Improvements were made in decision-making, negotiation, and communication abilities in terms of knowledge and skills (Shen et al. 2018). Leggat et al. (2016) found significant improvements in emotional intelligence ( $t=2.923$ ;  $df=109.7$ ;  $p=.004$ ), and MacPhee et al. (2014) found improvements in leader empowering behaviour ( $t=7.75$ ;  $df=0.06$ ;  $p=.001$ ) and psychological empowerment ( $t=3.31$ ;  $df=0.12$ ;  $p=.001$ ) after the completion of the programmes. Abraham (2011) also saw a large change in professional behaviour as a result of the programme. Participants in their units and departmental committees, workgroups, and councils, for example, reported increased leadership involvement. Other empowering behaviours included writing an article, starting a research study, and leading practice initiatives as a staff nurse to improve patient care quality and safety (Abraham 2011).

## Discussion

Based on this analysis, we now know what kinds of skills and systems should be included in interventions to boost nurses' ability to take charge in healthcare facilities. Moreover, a few tools for gauging their efficacy are proposed.

Consistent with a previous integrative review, which describes a clinical leader as demonstrating three attributes (clinical competence and expertise, skills for building teams and relationships, and personal qualities), this study found that these interventions should also focus on cognitive and interpersonal factors (Mannix et al. 2013). Nevertheless, as the precise competencies to be developed are not mentioned, it is not possible to compare these findings to those obtained in a recent systematic review (Mianda and Voce 2018) focusing on treatments for clinical leadership among frontline healthcare personnel. In addition to what has already been said, Mianda and Voce (2018) explain the findings without distinguishing between inpatient and outpatient settings or participants like doctors and managers. Given the lack of clarity surrounding the idea of clinical leadership (Chávez and Yoder 2015; Mianda and Voce 2017; Stanley and Stanley 2018), a shared understanding of the essential skills required to be an effective clinical leader in the healthcare system is essential (Larsson and Sahlsten 2016). What is remarkable about our review is that while the three competencies were identified in most of the programmes we looked at, we found that only a subset of each of them was really addressed. When it comes to intrinsic competencies, for example, not all of the studies considered included the aforementioned abilities (Abraham 2011; Hamed et al. 2023; Fitzpatrick et al. 2016; Leggat et al. 2016; MacPhee et al. 2014; Shen et al. 2018 Xie et al. 2021). The review's findings expand our understanding of psychological empowerment, emotional intelligence, and critical reflexivity—three qualities essential to any nurse leader's toolkit. It is worth noting that there may be competencies that have not been identified and others that need to be studied in greater detail due to the lack of research and the methodological constraints of these investigations. Bedside nurses' expertise in solving real-world problems through teamwork, for instance, may be investigated further (McCaughey et al. 2020). These findings highlight the need for additional study on this topic, ideally led by a coherent theory-based approach, as well as the need for greater agreement on how to define nurses' clinical leadership (Chávez and Yoder 2015; MacPhee et al. 2014; Mianda and Voce 2017; Stanley and Stanley 2018).

The AONL competency model is proposed as a valuable framework for outlining the essential knowledge, skills and ability that successful nurse clinical leaders should possess on the basis of the results of this review, in which only half of the studies selected specified the programme development framework (Abraham 2011; MacPhee et al. 2014; Shen et al. 2018). Together, the findings of this research and the competency model that has been widely used for nursing leadership development (AONL 2015; Sherman and Pross 2010) but less for nurses' clinical leadership (Shen et al. 2018) should serve as a roadmap for future interventions in the hospital setting. MacPhee et

al. (2014) argue that positive outcomes can be maintained with a robust theory-based foundation for nurse leadership development programmes.

The results of the current review expand on this idea by not only identifying the necessary competencies to develop, but also suggesting different strategies to be used to develop each of the three core competencies: didactic and interactive learning strategies to develop cognitive competencies; mentoring and team reinforcement to acquire interpersonal competencies; and experiential learning to develop intrinsic competencies (Abraham 2011; Chappell and Richards 2015; Fitzpatrick et al. 2016; Leggat et al. 2016; MacPhee et al. 2014; Shen et al. 2018). To this end, it may be worthwhile to incorporate methodologies like simulations, role acting, and case studies (Vázquez-Calatayud et al. 2017) into nursing education in order to help students build clinical leadership skills and provide nurses with more agency in shaping bottom-up innovations.

Moreover, it is worth noting that no reviewed research has employed a tool that thoroughly measures clinical leadership. This finding can be explained by the fact that various sources use different definitions of clinical leadership for nurses (Chávez and Yoder 2015; Mianda and Voce 2017; Stanley and Stanley 2018). However, it is worth noting that the “Leadership Practices Inventory” (LPI) (Kouzes and Posner 2017) is one of the available questionnaires that comes close to the definition of leadership, and is used in a variety of contexts with high validity and reliability to measure leadership ability and leadership behaviours. In conjunction with the Psychological Empowerment Scale (PES), this questionnaire could be used to assess programmes that foster nurses’ capacity for clinical leadership. The questionnaire is divided into five subscales, each of which addresses a different aspect of the three core competencies identified in this review.

## Nursing Implications

This review will assist nurse managers and educators in improving the quality of service, patient satisfaction, and nurse retention by shedding light on how to best educate and manage future clinical nurse leaders in the hospital setting. Specifically, theory-based, mixed-format, and multi-component programmes should address the knowledge and abilities of bedside nurses to solve practical problems cooperatively with a sense of control, competency, and autonomy. Furthermore, these programmes may encourage nurses to share their expertise during interdisciplinary team rounds, serve on committees, and suggest projects to enhance nurses’ day-to-day work.

## Conclusion

The findings of this literature study can be used to inform the development, delivery, and assessment of future leadership training initiatives. This review suggests that in order to better support nurses’ clinical leadership in healthcare settings, it may be useful to create multicomponent, theory-based AONL frameworks and mixed-format

programmes. Cognitive, interpersonal, and intrinsic abilities, as well as psychological empowerment skills, emotional intelligence, and critical reflexivity, should all be covered in multi-component programmes. More work needs to be done on clinical leadership instruments for nurses if these programmes are to be evaluated thoroughly. Meanwhile, it would be helpful to employ a mix of LPI and PES, two valid and practical technologies.

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