

The use of practice education facilitators to strengthen the clinical learning environment for nursing students: A realist review

Cathrine Mathisen^{a,*}, Lena Günterberg Heyn^a, Turid-Iren Jacobsen^a,
Ida Torunn Bjørk^b, Elisabeth Holm Hansen^a

^a Faculty of Health and Social Sciences, Department of Nursing and Health Sciences, University of South-Eastern Norway, Drammen, Norway

^b Faculty of Medicine, Institute of Health and Society, Department of Nursing Science, University of Oslo, Oslo, Norway

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ABSTRACT

Background: Research suggests that the interventions of practice education facilitators, who liaise between the higher education institution and the clinical placement sites, may strengthen the clinical learning environment for nursing students. However, there is a lack of evidence concerning the value of these roles in nursing education.

Objective: The objective of this study was to explore how, under what circumstances and why the practice education facilitator role can strengthen the clinical learning environment for nursing students.

Design: A realist review was conducted to understand the contextual factors and mechanisms that support or hinder the capacity of the practice education facilitator to strengthen the clinical learning environment for nursing students.

Setting: The settings are clinical areas where nursing students are directly involved with patient care.

Participants: The participants comprised academic and clinical staff involved in clinical nursing education.

Methods: This realist review was conducted in three overlapping and iterative phases: (1) the development of an initial programme theory explaining how the practice education facilitator role is thought to strengthen the clinical learning environment; (2) structured searches, screening and data extraction; and (3) analysis and synthesis to develop and refine the programme theory.

Results: The review included 27 research papers. Evidence from these studies led to the development of five context–mechanism–outcome configurations that explain how, under what circumstances and why practice education facilitators can (or can fail to) strengthen the clinical learning environment. Factors such as practice education facilitators' visibility and accessibility in the clinical area and their clinical credibility were found to influence whether clinical supervisors took the opportunity to seek support and guidance from them. Moreover, ward culture regarding student learning and opportunities to prepare for the role were found to influence clinical supervisors' motivation to carry out the functions of the role and develop professionally; this in turn further influenced whether they used the resources provided by the practice education facilitator.

Conclusions: Theory-based explanations of how, under what circumstances and why the practice education facilitator role may strengthen the clinical learning environment of nursing students may support further development of this role in the future.

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What is already known

- Clinical placement and opportunities to apply theoretical knowledge to authentic patient care have long been recognised as pivotal for nursing students' development of clinical competence.
- The quality of the clinical learning environment, especially the role of the clinical supervisor, influences nursing students' opportunities to achieve their learning outcomes and develop clinical competence.

- Various placement support roles in which nurse educators work within the clinical field to promote and support clinical nursing education, have been introduced over the years.

What this paper adds

- This realist review demonstrates how, under what circumstances and why the practice education facilitator role can (or can fail to)

* Corresponding author at: Department of Nursing and Health Sciences, University of South-Eastern Norway, Postboks 235, 3603 Kongsberg, Norway.

E-mail addresses: cathrine.mathisen@usn.no (C. Mathisen), lena.heyne@usn.no (L.G. Heyn), turid.iren.jacobsen@usn.no (T.-I. Jacobsen), i.t.bjork@medisin.uio.no (I.T. Bjørk), elisabeth.h.hansen@usn.no (E.H. Hansen).

- strengthen the clinical learning environment for nursing students.
- The practice education facilitator role is valuable in nursing education because it enables clinical supervisors to provide a supportive clinical learning environment for nursing students.
 - Whether the use of practice education facilitators in nursing education leads to the intended outcome is contingent on contextual components, such as time allocated for the role and visibility and accessibility within the clinical learning environment.

1. Background

To develop the competencies needed to provide safe, high-quality nursing care, nursing students need to develop a complex combination of knowledge, skills, values and attitudes during their education (Nabizadeh-Gharghozar et al., 2021). Opportunities to apply theoretical knowledge to authentic patient care in a clinical learning environment have long been recognised as essential in this process (Blomberg et al., 2014; Nordquist et al., 2019). The importance of clinical practice is also emphasised in the European Directive 2013/55/EU, which requires that approximately 50% of nursing education take place in a clinical context (European Council, 2013).

Research indicates that the quality of the clinical learning environment influences students' opportunities to achieve their learning outcomes, and the role of the clinical supervisor is considered a significant factor in this environment (Flott and Linden, 2016; Mikkonen et al., 2020). There are different models for nursing student supervision in clinical placements. Most European countries follow the preceptor model, in which clinical nursing staff act as clinical supervisors (Dobrowolska et al., 2016; Jayasekara et al., 2018). Thus, the term 'clinical supervisor' refers to nursing staff who act as supervisors for nursing students within a clinical environment in addition to their clinical duties.

Clinical supervisors play a key role in guiding students to integrate theory and practice and to develop critical thinking skills. They also act as role models, influencing students' development of professional attitudes (Dobrowolska et al., 2016; Jayasekara et al., 2018). However, certain features of the clinical area—such as high patient acuity, understaffing, high workloads and limited resources for professional development—influence clinical supervisors' ability to provide a supportive clinical learning environment for nursing students (Flott and Linden, 2016; McIntosh et al., 2014; Nordquist et al., 2019).

Challenges with the preceptor model, such as lack of time and support in the role, are known to create stress for clinical supervisors (Frøiland et al., 2021; Wu et al., 2016). Furthermore, a lack of supervisory and assessment competence is addressed as a challenge by clinical supervisors themselves, nurse educators and nursing students (Cant et al., 2021; Sørø et al., 2021; Wu et al., 2017). These circumstances have led to concerns about the educational quality of clinical placements and nursing students' fitness for practice upon graduation (Jayasekara et al., 2018; Järvinen et al., 2018). To address these challenges, practice support roles are recommended as a means of strengthening the clinical learning environment for nursing students in clinical placement (Hovdhaugen et al., 2021; McSharry and Lathlean, 2017; Scott et al., 2017).

Many practice support roles in nursing education have emerged in the last two decades, and because these roles have been introduced to meet individual and local needs, different role remits and titles exist (Lambert and Glacken, 2004; Scott et al., 2017). In this realist review, we use the term 'practice education facilitator' in a generic sense to indicate roles in which nurse educators are employed by a higher education institution, a healthcare provider or both to work within the clinical field to promote and support clinical nursing education. The term 'facilitator' resonates with newer models of higher education, which emphasise a student-centred approach that promotes self-direction, critical thinking and lifelong learning. A practice education facilitator provides

guidance and support to both nursing students and clinical supervisors within the clinical setting and acts as a liaison between the higher education institution and the clinical placement sites (Scott et al., 2017). Moreover, by serving as a face-to-face contact point for clinical supervisors and students, the practice education facilitator may promptly troubleshoot a range of issues that can be challenging for the higher education institution to address.

Although research on the role of practice education facilitators indicates that nursing students and clinical supervisors recognise its usefulness, there is currently a lack of evidence to support its value regarding outcomes in the clinical learning environment (Scott et al., 2017). Hence, there is a need to better understand how and why practice education facilitators can strengthen the clinical learning environment. As the individual-level analysis does not fully explain the value of such roles across different placement providers, a review is necessary.

This study conceptualises the clinical learning environment based on Flott and Linden's (2016) definition. They defined the clinical learning environment as any setting where students apply theory to practice by conducting patient care to develop the experiential knowledge necessary to become competent nurses. The authors further state that the clinical learning environment has four attributes: (1) the physical space, (2) psychosocial and interaction factors, (3) organisational culture and (4) teaching and learning components. The physical space consists of resources (e.g., equipment) required for students to provide patient care. Psychosocial and interaction factors involve the communication and interaction amongst everyone in the clinical learning environment, including patients, clinical staff, supervisors/facilitators and students. Organisational culture refers to the organisation's perceptions of nursing education and policies and its particular emphasis on patient care. Teaching and learning components concern the effectiveness of the teaching, supervision and evaluation provided to students, student access to relevant learning situations and student engagement in the learning process (Flott and Linden, 2016).

2. Aim and objective

To clarify the value of using practice education facilitators in nursing education, the objective of this realist review was to explore how, under what circumstances and why such roles can contribute to strengthening the quality of the clinical learning environment for nursing students. This study addressed the following research questions:

- (1) What are the key contextual components of the clinical learning environment that influence the outcomes of using practice education facilitators in nursing education?
- (2) What are the key mechanisms that promote or hinder these roles' usefulness for clinical supervisors in their role?

3. Methods

A realist approach was chosen for this review due to the complexity and diversity that characterise the clinical learning environment (a glossary of working definitions of realist terms is included in Box 1). The RAMESES publication standards for realist synthesis (Wong et al., 2013) guided the review process, which was undertaken in three overlapping, iterative phases: (1) the development of an initial programme theory to define the scope of the review; (2) structured searches, screening and data extraction; and (3) analysis and synthesis to build and refine the programme theory.

3.1. Defining the scope of the review, concept mining and initial theory development

The first phase's objective was to develop a structure and framework for the review (Pawson et al., 2005). Key insights from stakeholder consultations and an informal reading of the literature were used to

Box 1

Working definitions of realist terms

Context: Conditions constituting the “backdrop” of the intervention, including but not limited to personal, social or organisational aspects that influence the behaviour of mechanisms. Because these conditions change over time, the context may reflect characteristics of those changes during the implementation of the intervention.

Mechanism: The generative force that leads to outcomes. It includes the resources provided by the intervention (such as access to guidance and support from a practice education facilitator) and the influence it has on the response of the clinical supervisor (such as feeling more secure in the role).

Demi-regularity: A semipredictable pattern of outcomes.

Outcome: The intended or unintended result of the intervention.

Programme theory: A description of how the intervention is expected to generate the intended outcome and under what circumstances (often described as context–mechanism–outcome configurations).

Context–mechanism–outcome configurations: An explanation of the relationship between context, mechanism and outcome; the unit of analysis that is used to synthesise findings across studies to develop and refine programme theory.

(Kirsh et al., 2017; Pawson et al., 2005; Wong et al., 2013)

develop an initial programme theory that explains how the practice education facilitator role is thought to strengthen the clinical learning environment for nursing students. The stakeholders were practice education facilitator postholders, managers from a placement site and lecturers and managers from the field of nursing education. All the stakeholders were involved in a Norwegian project aiming to develop and introduce practice education facilitators into a bachelor's degree programme in nursing. The literature used— identified based on an initial background search— included grey literature from the Norwegian context, literature from nursing journals and literature from scientific papers.

Whilst developing the initial programme theory, we decided to narrow its scope to the provision of support and guidance to clinical supervisors based on what the research team found to be most useful for the further development of the practice education facilitator role in Norway. The initial programme theory explains how certain attributes of the clinical learning environment may have been contextual factors affecting clinical supervisors' responses to resources provided by the practice education facilitators (mechanisms), which led to the outcome of

interest (Fig. 1). The initial programme theory was used as a starting point for the subsequent steps of the review process.

3.2. Searching for relevant studies

The literature searches followed the iterative steps of the realist search method described by Booth et al. (2020) and took place in three rounds. All searches were assisted by a librarian at the University of South-Eastern Norway. A broad background search was conducted during the first phase of the review process to explore the available literature in the field of interest. The initial programme theory developed in this first phase of the review informed the development of a broad search strategy that centred on the following key concepts: clinical placement, clinical supervision, clinical learning environment and practice education facilitator (see Supplementary Materials: Appendix 1 for details of the search strategy).

Systematic literature searches using the databases MEDLINE, Embase, ERIC and CINAHL were completed in May 2020, and updates of this search were conducted in February and December 2021. In

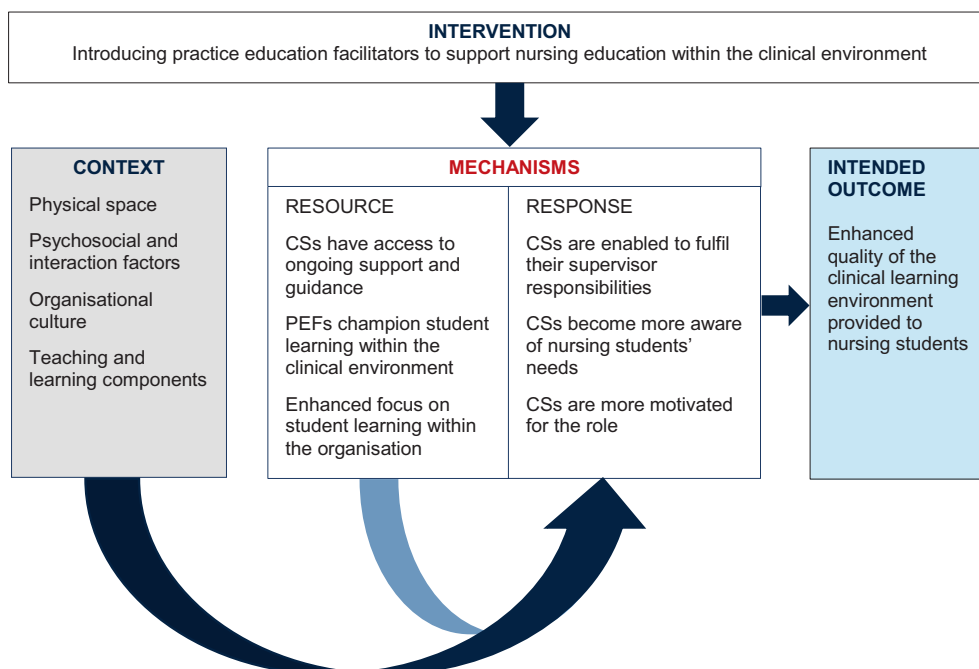


Fig. 1. Initial programme theory. CS = Clinical supervisors; PEF = Practice education facilitator.

addition, a complementary search focusing on clinical supervisor experiences and citation searches was undertaken to identify additional relevant literature. Papers identified through the searches were exported to EndNote, and duplicates were deleted. After deleting the duplicates, 2950 titles and abstracts were screened for inclusion by 3 members of the research team (CM, LGH and EHH). Moreover, the Rayyan QCR1 web app was used to screen the records. The inclusion criteria were empirical research papers that reported on undergraduate nursing education (bachelor's degree programmes) and the use of practice education facilitator roles or other interventions to provide support and guidance to clinical supervisors. Exclusion criteria were empirical papers not focusing on nursing education, papers focusing solely on nursing student perspectives, papers focusing on postgraduate education and nonempirical papers. Searches were limited to studies written in English and Scandinavian languages and, to reflect contemporary nursing education, studies published during the years 2006–2021. See Fig. 2 for review process.

3.3. Data extraction, analysis and synthesis process

In total, 223 papers met the criteria, and an appraisal form adapted from Jagosh et al. (2011) was used to assess the full-text papers for relevance (contribution to programme theory elements), rigour (sufficient quality to provide credible evidence when refining specific elements of the programme theory) and richness (existence and quality of causal insights). The data useful for a realist review are restricted not by research type but by relevance to the review question (Wong et al., 2013). The full-text papers were assessed by CM, LGH and EHH, and disagreements were resolved through discussion. The selection and appraisal of papers was conducted iteratively, which allowed the review process to benefit from the researchers' gradual sensitisation of relevance during the research process.

The review question 'How and under what circumstances does the clinical practice facilitator strengthen the clinical learning

environment?' guided the data extraction. CM conducted the data extraction, and LGH and EHH appraised the extraction process.

The context–mechanism–outcome configuration formula developed by Pawson and Tilley (1997) was used as an analytical tool for identifying recurring patterns of context, mechanisms and outcomes across different studies and settings. The first round of coding was conducted on a selection of papers that were expected to best inform the development of context–mechanism–outcome configurations; it was performed inductively, assigning pieces of data to thematic codes. The codes were then organised into groups of preliminary context–mechanism–outcome configurations. The analysis gradually became more deductive, following an iterative process whereby the data were coded, organised and synthesised to further develop the preliminary context–mechanism–outcome configurations. Coded data from the included papers and their contribution to the context–mechanism–outcome configurations were then shared with all authors and discussed to assess credibility.

3.4. Ethical considerations

The stakeholders participating in the stakeholder consultations were invited to participate in the research project at a project group meeting. Informed consent was obtained from the stakeholders, and ethical approval was obtained from the Norwegian Centre for Research Data (NSD, reference no: 255238), the University of South-Eastern Norway and the privacy officer at the collaborating hospital trust.

4. Results

In total, 27 studies were included in the review (the United Kingdom, 12; Finland/United Kingdom, 1; Ireland, 2; Norway, 3; Norway and Sweden, 3; Sweden, 2; United States, 2; Australia, 1; Canada, 1). Six studies evaluated practice education facilitator roles, 14 studies focused on clinical supervisor experiences, 3 studies evaluated clinical supervisor support and guidance interventions and 4

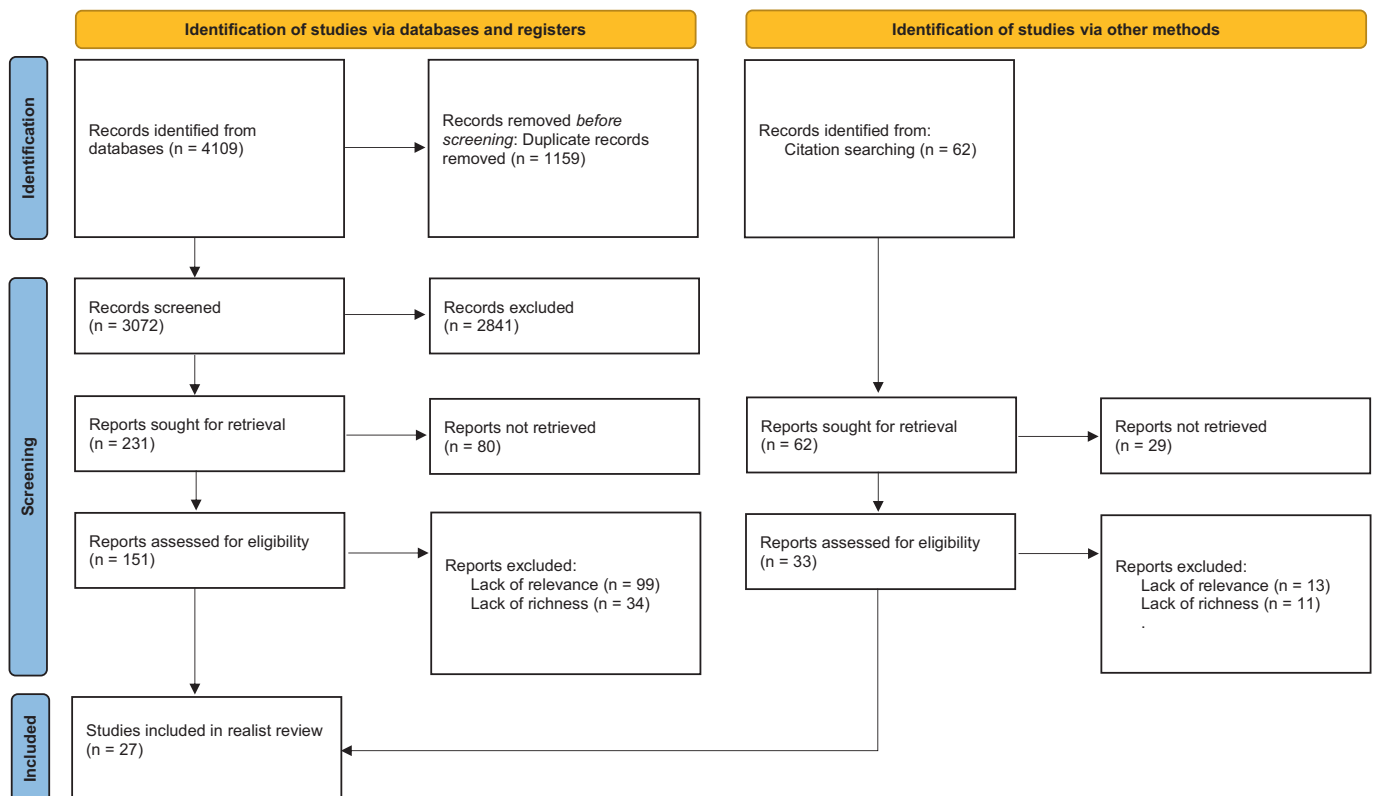


Fig. 2. PRISMA diagram.

Table 1
Summary of included studies.

Number	Authors	Year	Title	Countries	Topic/intervention	Aims of the study
1	Aigeltinger et al.	2012	Challenges that nurse instructors encounter as student mentors	Norway	Clinical supervisor experiences	To reveal and describe challenges that clinical nurses encounter as clinical supervisors.
2	Andersson et al.	2013	Expectations and experiences of group supervision: Swedish and Norwegian preceptors' perspectives	Norway and Sweden	Supervisor support and guidance	To describe clinical supervisors' expectations and experiences of participating in group supervision provided to strengthen them in their role.
3	Andrews & Ford	2013	Clinical facilitator learning and development needs: Exploring the why, what and how	Australia	Clinical supervisor experiences	To increase the understanding of the experiences of clinical supervisors and their professional learning needs through participatory research.
4	Cangelosi et al.	2009	Expert to novice: clinicians learning new roles as clinical nurse educators	USA	Preparation course	To explore how narratives of clinicians participating in a Clinical Nurse Educator Academy enhance the understanding of these individuals as they prepare for roles as clinical supervisors.
5	Carlisle et al.	2009	Practice-based learning: the role of practice education facilitators in supporting mentors	UK	Practice education facilitator	To evaluate the perceived impact of the practice education facilitator role in supporting clinical supervisors across Scotland.
6	Carlson et al.	2010	Time to precept: supportive and limiting conditions for precepting nurses	Sweden	Clinical supervisor experiences	To describe under what conditions supervision takes place in a clinical context from the perspective of clinical supervisors.
7	Carlson & Bengtsson	2015	Perceptions of preceptorship in clinical practice after completion of a continuous professional development course- a qualitative study Part II	Sweden	Preparation course	To evaluate clinical supervisors' experiences of supervision in clinical practice after completion of a credit bearing continuous professional development (CPD) course.
8	Cassidy et al.	2017	'Seeking authorization': a grounded theory exploration of mentors' experiences of assessing nursing students on the borderline of achievement of competence in clinical practice	UK	Clinical supervisor experiences	To develop a substantive theoretical explanation of how clinical supervisors make sense of their experiences where nursing students are on the borderline of achievement of competence in clinical practice.
9	Congdon et al.	2013	Enhancing the strategic management of practice learning through the introduction of the role of Learning Environment Manager	UK	Practice education facilitator	To introduce and evaluate the role of the practice education facilitator.
10	Dahlke et al.	2016	Understanding clinical nursing education: An exploratory study	Canada	Clinical supervisor experiences	To discover the knowledge and guidance needs of clinical supervisors and clinical faculty who provide clinical supervision to Bachelor of Science in Nursing (BSN) students.
11	Danielsson et al.	2009	Norwegian and Swedish preceptors' views of their role before and after taking part in a group supervision program	Norway and Sweden	Supervisor support and guidance	To explore how group supervision could influence the clinical supervisors' views of their role and how they valued this participation.
12	de Fulvio et al.	2015	Teaching Future Nurses in the Clinical Setting: The Clinical Nurses' Perspective	USA	Clinical supervisor experiences	To explore characteristics and perceptions of clinical supervisors.
13	Devlin & Duggan	2020	An evaluation of nurses' experiences of mentoring pre-registration student	UK	Clinical supervisor experiences	To gain an understanding of clinical supervisors' experiences of supervising students and to evaluate how they perceived the support they were given.
14	Douglas et al.	2016	Nurses' perceptions and experiences of mentoring	UK	Clinical supervisor experiences	To explore clinical supervisors' perceptions of support from practice education facilitators.
15	Duffy	2009	Guiding students through reflective practice - The preceptors experiences	Ireland	Clinical supervisor experiences	To capture clinical supervisors' views and experiences of using guided reflection as a learning tool in the clinical practice area.
16	Elliott	2017	Identifying and managing underperformance in nursing students: lessons from practice	UK	Clinical supervisor experiences	To identifying areas for improving underperformance and how it could be managed in future.
17	Grey & Brown	2016	Evaluating a nurse mentor preparation programme	UK	Preparation course	To explore both the trainee supervisors' and their supervisors' perception of a new preparation course for clinical supervisors.
18	Grongstad et al.	2020	The value of the clinical facilitator for clinical supervisors' who supervise nursing students in clinical placement	Norway	Practice education facilitator	To explore the value of the practice education facilitator role for clinical supervisors.
19	Hunt et al.	2016	Failing securely: The processes and support which underpin English nurse mentors' assessment decisions regarding under-performing students	UK	Clinical supervisor experiences	To investigate what enabled some clinical supervisors to fail underperforming students when it was recognised that many were hesitant to do so
20	Jokelainen et al.	2013	Seamless and committed collaboration as an essential factor in effective mentorship for nursing students: Conceptions of Finnish and British mentors	Finland and UK	Clinical supervisor experiences	To describe Finnish and British clinical supervisors' conceptions of the factors that affect the provision of effective supervision for pre-registration nursing students in healthcare placements
21	Jowett & McMullan	2007	Learning in practice - practice educator role	UK	Practice education facilitator	To evaluate the effectiveness of the practice education facilitator role from the perspective of the three main constituent groups, practice education facilitators themselves, clinical supervisors and students.
22	Mallik & Hunt	2007	Plugging a hole and lightening the burden: a process evaluation of a practice education team	UK	Practice education facilitator	To investigate the perceptions of clinical and senior managers about the role of practice education facilitators employed in one acute hospital in the UK
23	McArthur & Burns	2008	An evaluation, at the 1-year stage, of a 3-year project to introduce practice education facilitators to NHS Tayside and Fife	UK	Practice education facilitator	To evaluate the impact of the practice education facilitator in supporting learning in practice

(continued on next page)

Table 1 (continued)

Number	Authors	Year	Title	Countries	Topic/intervention	Aims of the study
24	McCarthy & Murphy	2010	Preceptors' experiences of clinically educating and assessing undergraduate nursing students: an Irish context	Ireland	Clinical supervisor experiences	To explore views and experiences of clinical supervisors supervising nursing students
25	Mårtensson et al.	2016	Preceptors' reflections on their educational role before and after a preceptor preparation course: A prospective qualitative study	Norway and Sweden	Preparation course	To describe clinical supervisors' experiences of their educational role before and after attending a supervisor preparation course
26	Sørø et al.	2021	Preceptorship of clinical learning in nursing homes – A qualitative study of influences of an interprofessional team intervention	Norway	Supervisor support and guidance	To explore the influences of an interprofessional preceptor-team intervention on interprofessional collaboration, clinical supervisor role, confidence, and motivation to supervise health care students and apprentices in a Norwegian nursing home
27	Williamson et al.	2011	Improving student support using Placement Development Teams: staff and student perceptions	UK	Clinical supervisor experiences	To investigate the perception of student support from stakeholders in clinical practice prior to Placement Development Team implementation

studies evaluated clinical supervisor preparation courses. Evidence from these studies led to the development of five context–mechanism–outcome configurations that explain how the practice education facilitator role works in the clinical environment. The included studies are summarised in Table 1.

4.1. Context–mechanism–outcome configurations

The results presented below are organised into sections that present supporting evidence, followed by a context–mechanism–outcome configuration that provides an explanatory interpretation of the findings.

4.1.1. Having someone to whom one could turn

The autonomy characterising the clinical supervisor role was found to cause negative emotions, such as uncertainty, frustration and stress, especially amongst clinical supervisors who felt unprepared for the role. Clinical supervisors who were unfamiliar with academic requirements and assessment processes and those who lacked theoretical and pedagogical competence were more likely to feel unprepared for the role (Aigeltinger et al., 2012; Andrews and Ford, 2013; Cangelosi et al., 2009; de Fulvio et al., 2015; Devlin and Duggan, 2020; Duffy, 2009; Gray and Brown, 2016; Mårtensson et al., 2016; Williamson et al., 2011). However, findings indicate that access to ongoing support and guidance helped clinical supervisors feel more comfortable and secure in their role because they had opportunities to seek emotional, practical and consulting support when facing unfamiliar and challenging situations (Aigeltinger et al., 2012; Andersson et al., 2013; Andrews and Ford, 2013; Carlisle et al., 2009; Carlson et al., 2010; Cassidy et al., 2017; Congdon et al., 2013; Dahlke et al., 2016; Danielsson et al., 2009; de Fulvio et al., 2015; Devlin and Duggan, 2020; Douglas et al., 2016; Gray and Brown, 2016; Grongstad et al., 2020; Hunt et al., 2016; Jokelainen et al., 2013; McArthur and Burns, 2008; Mårtensson et al., 2016; Sørø et al., 2021).

One situation recognised as challenging for clinical supervisors was managing underperforming students. Clinical supervisors who felt unprepared for the role could internalise students' lack of progress because of poor supervision, which could lead to feelings such as guilt, disappointment, frustration and discouragement (Aigeltinger et al., 2012; Cangelosi et al., 2009; Cassidy et al., 2017; Douglas et al., 2016; Hunt et al., 2016). Similarly, clinical supervisors who felt unsupported in these situations were less likely to act on their concerns due to an emotional barrier to addressing underperformance, which could lead to a 'failing to fail' situation (Douglas et al., 2016; Elliott, 2017; Gray and Brown, 2016; Hunt et al., 2016; McCarthy and Murphy, 2010; Mårtensson et al., 2016). Moreover, clinical supervisors forced to navigate in the dark when facing unfamiliar or challenging situations were also more likely to have negative experiences related to the role, which could lead to reluctance towards being a supervisor in the future (Aigeltinger et al., 2012; Cangelosi et al., 2009; Douglas et al., 2016; Duffy, 2009; Elliott, 2017; McCarthy and Murphy, 2010).

However, clinical supervisors who experienced support were more likely to be able to manage challenging student situations in proper ways. In addition, opportunities to discuss and share their experiences enabled supervisors to cope with negative emotions and gain more insight into their own reactions (Andersson et al., 2013; Danielsson et al., 2009). Having someone to consult was also found to help supervisors become more confident in their judgements and to facilitate their decision making in the assessment processes (Aigeltinger et al., 2012; Andrews and Ford, 2013; Carlson et al., 2010; Cassidy et al., 2017; Congdon et al., 2013; Dahlke et al., 2016; Danielsson et al., 2009; Hunt et al., 2016; Jokelainen et al., 2013; Sørø et al., 2021). Furthermore, clinical supervisors who had someone to whom they could turn for ongoing support and guidance were more likely to seek help before larger issues arose, which improved student support and prevented potentially difficult situations from developing (Carlisle et al., 2009; Douglas et al., 2016; Hunt et al., 2016).

Clinical supervisors were also more likely to be able to recognise different approaches to supervision when they had someone to whom they could turn as a sounding board and for practical advice, and someone with whom they could discuss their supervision performance and who could give them feedback. Furthermore, the clinical supervisors were enabled to develop their supervision skills, which helped them feel more comfortable and secure in the role, leading to enhanced quality of the supervision provided to students (Andersson et al., 2013; Andrews and Ford, 2013; Cangelosi et al., 2009; Carlisle et al., 2009; Dahlke et al., 2016; Douglas et al., 2016; Duffy, 2009; Gray and Brown, 2016; Grongstad et al., 2020; Jokelainen et al., 2013; Williamson et al., 2011).

Context–mechanism–outcome configuration 1

Unfamiliar and challenging student situations can cause feelings such as uncertainty, frustration and stress amongst clinical supervisors, especially those who feel unprepared for the role (context). However, access to ongoing support from a practice education facilitator and opportunities to receive emotional, practical and consulting support (mechanism resource) help clinical supervisors feel more comfortable and secure in the role because they are enabled to address unfamiliar and challenging student situations (mechanism response). This leads to enhanced motivation for clinical supervisors to undertake the supervisor role and enhanced quality of the supervision provided to nursing students (outcome).

4.1.2. Visibility and accessibility

In areas where the practice education facilitator had a high workload, lower visibility and accessibility, and part-time positions or pressures to perform other duties, views of the role were found to be less positive, and there was lower confidence in the value of the role. Thus, the postholder's visibility and accessibility in the clinical area was found to be a central factor influencing whether clinical supervisors found the role useful (Carlisle et al., 2009; Jokelainen et al., 2013; Mallik and Hunt, 2007; Williamson et al., 2011).

First, the practice education facilitator needed to be visible in the clinical area to be able to promote the role and to develop a relationship with the clinical staff (Devlin and Duggan, 2020; McArthur and Burns, 2008). Knowledge not only of the practice education facilitator role but also of the identity of the post holder was found to be important for clinical supervisors' willingness to take advantage of the support and guidance provided by the practice education facilitator. However, when supervisors did not know the practice education facilitator, they could be reluctant to contact the postholder for minor issues (Aigeltinger et al., 2012). Furthermore, the lack of a trusting relationship could prevent clinical supervisors from seeking support and guidance from the practice education facilitator when they were facing difficult situations because they were concerned that doing so could reflect negatively on their competence as supervisors (Douglas et al., 2016; Elliott, 2017; Hunt et al., 2016; Jowett and McMullan, 2007; Mallik and Hunt, 2007).

Second, the accessibility of the practice education facilitators in the clinical area strongly influenced whether the role was viewed as valuable for the clinical supervisors. If the practice education facilitators were unable to be responsive and provide timely support to the clinical supervisors when a difficult situation arose, the support was typically perceived to be of less value for the clinical supervisors, and it could come too late for the nursing students due to their limited time in clinical placement (Carlisle et al., 2009; Douglas et al., 2016; Duffy, 2009; Hunt et al., 2016; Jokelainen et al., 2013; Mallik and Hunt, 2007).

Context–mechanism–outcome configuration 2

Practice education facilitators who are visible and accessible in the clinical area (context) are more likely to be able to promote their role and develop a trusting relationship with clinical supervisors (mechanism resource). Familiarity with the role and a trusting relationship with the postholder will help supervisors acknowledge the opportunity they have to seek support and guidance from the practice education facilitator (mechanism response), and they will be more likely to use the opportunity to seek support and guidance when facing unfamiliar or challenging student situations (outcome).

4.1.3. Clinical credibility

Clinical supervisors could be resistant to change due to certain feelings, such as apathy, ignorance, tribalism, and taking things personally, but they were found to be more open to seeking and receiving support and guidance from someone they considered clinically credible and part of the clinical culture (Carlisle et al., 2009; Jowett and McMullan, 2007; Mallik and Hunt, 2007; McArthur and Burns, 2008). Moreover, practice education facilitators familiar with the clinical setting were more likely to be able to develop a trusting relationship with clinical supervisors because they had first-hand knowledge of the pressures and constraints present in the clinical environment. In addition to personal attributes, such as flexibility and communication skills, being viewed as credible helped the practice education facilitators overcome resistance to change and address deficits in the clinical learning environment, which also enabled the supervisors to develop in their role (Andersson et al., 2013; Carlisle et al., 2009; Jowett and McMullan, 2007; Mallik and Hunt, 2007; McArthur and Burns, 2008).

Context–mechanism–outcome configuration 3

Clinical credibility, in addition to personal attributes such as flexibility and communication skills (context), enables the practice education facilitator to address deficits in the clinical learning environment (mechanism resource), because clinical supervisors are more open to receiving support and guidance from someone they view as understanding the pressures and constraints in the clinical setting (mechanism response). This further helps clinical supervisors develop in their role and enhances the quality of the clinical learning environment provided to nursing students in clinical placement (outcome).

4.1.4. Ward culture

Ward culture regarding student learning and the clinical workload was identified as a central contextual factor influencing the quality of the clinical learning environment (Carlson et al., 2010; Congdon et al., 2013; Devlin and Duggan, 2020; Duffy, 2009; Gray and Brown, 2016; Grongstad et al., 2020; Hunt et al., 2016; McCarthy and Murphy, 2010; Sørø et al., 2021). In particular, balancing the dual responsibility for patient care and student supervision was widely reported to be challenging for clinical supervisors. Also, a heavy clinical workload was found to be a barrier to clinical supervisors' ability to provide a supportive clinical learning environment for nursing students (Aigeltinger et al., 2012; Andersson et al., 2013; Carlisle et al., 2009; Carlson et al., 2010; Dahlke et al., 2016; Danielsson et al., 2009; de Fulvio et al., 2015; Devlin and Duggan, 2020; Duffy, 2009; Elliott, 2017; Gray and Brown, 2016; Grongstad et al., 2020; Jokelainen et al., 2013; Mallik and Hunt, 2007; McCarthy and Murphy, 2010; Mårtensson et al., 2016).

However, in areas recognised as having a supportive ward culture where student supervision was accepted as something that takes time, managers and clinical staff were more likely to support their supervising colleagues in ways that helped lighten their workload and enabled them to provide support and guidance to students. Clinical supervisors who had sufficient time and support to fulfil their supervisor role were also more likely to experience the role as rewarding, which could lead to enhanced motivation to be a supervisor and to develop in this role (Carlson et al., 2010; Congdon et al., 2013; de Fulvio et al., 2015; Devlin and Duggan, 2020; Duffy, 2009; Gray and Brown, 2016; Hunt et al., 2016; Jokelainen et al., 2013; McCarthy and Murphy, 2010; Sørø et al., 2021).

Clinical supervisors who had heavy clinical workloads and were not supported by colleagues and the ward manager in fulfilling their supervisor responsibilities were less likely to take advantage of the opportunities to seek support and guidance from the practice education facilitator because they felt the need to prioritise patient care. Furthermore, they were more likely to feel inadequate as supervisors and to experience the role as a burden; this could result in reduced motivation to be a clinical supervisor and a lack of interest in developing in this role (Aigeltinger et al., 2012; Andersson et al., 2013; Carlisle et al., 2009; Carlson et al., 2010; Dahlke et al., 2016; de Fulvio et al., 2015; Devlin and Duggan, 2020; Duffy, 2009; Gray and Brown, 2016; Grongstad et al., 2020; Mallik and Hunt, 2007; McCarthy and Murphy, 2010; Mårtensson et al., 2016).

In some areas, the introduction of the practice education facilitator role helped the clinical supervisors recognise the importance of providing a supportive clinical learning environment; this further contributed to a more supportive working environment and enhanced the quality of the clinical learning environment provided to nursing students (Carlisle et al., 2009; Congdon et al., 2013; Devlin and Duggan, 2020; Grongstad et al., 2020; Mallik and Hunt, 2007; Mårtensson et al., 2016; Williamson et al., 2011).

Context–mechanism–outcome configuration 4

In areas recognised as having a supportive working environment and a common understanding that supervision is something that takes time (context₁), clinical supervisors are more likely to be enabled to fulfil their responsibilities as supervisors and thus experience the role as fulfilling (mechanism reasoning₁), leading to enhanced motivation to be supervisors and to develop in the role (outcome₁). In areas where student supervision is viewed as something clinical supervisors should manage alongside their clinical duties (context₂), clinical supervisors are more likely to experience the dual responsibility for patient care and student supervision as challenging and feel inadequate in the supervisor role (mechanism reasoning₂), leading to a lack of motivation to perform and develop in their role (outcome₂).

4.1.5. Pedagogical development

Access to ongoing pedagogical development and opportunities to prepare for the supervisor role were found to influence clinical

supervisors' interest in and motivation towards filling the role (Andersson et al., 2013; Andrews and Ford, 2013; Carlson and Bengtsson, 2015; Dahlke et al., 2016; Danielsson et al., 2009; Gray and Brown, 2016; Grongstad et al., 2020; Jokelainen et al., 2013; McCarthy and Murphy, 2010; Mårtensson et al., 2016; Sørø et al., 2021).

Clinical supervisors who were not prepared for the role were likely to base their supervision on intuition and their own experiences, which could cause feelings of insecurity due to a lack of confidence in their performance (Andrews and Ford, 2013; Carlson et al., 2010; Mårtensson et al., 2016). Thus, access to pedagogical training was identified as a factor perceived by clinical supervisors as central to their ability to prepare for the role, justify their actions and feel more secure and confident in the role (Andersson et al., 2013; Andrews and Ford, 2013; Danielsson et al., 2009; Gray and Brown, 2016; Grongstad et al., 2020; Jokelainen et al., 2013; Mårtensson et al., 2016).

Pedagogical sessions providing opportunities for clinical supervisors to share experiences and reflect with others in the same role were found to help them develop competence, as feedback and validation from peers and practice education facilitators helped clinical supervisors discover different approaches to supervision (Andersson et al., 2013; Andrews and Ford, 2013; Carlisle et al., 2009; Grongstad et al., 2020; Jokelainen et al., 2013; Mårtensson et al., 2016; Sørø et al., 2021). Furthermore, when clinical supervisors were supported by their managers in attending educational sessions, the clinical supervisor role was more likely to be considered important by clinical staff, leading to an enhanced status of the role (Andrews and Ford, 2013).

However, a lack of time allocated to attending educational sessions could lead to concerns amongst clinical supervisors that they created a heavy workload for colleagues; this could prevent them from attending the sessions, resulting in missed opportunities for development in their role (Andersson et al., 2013; Sørø et al., 2021). Moreover, clinical supervisors who were not prepared for the role and lacked pedagogical competence could be unaware of their inadequacy, leading to a lack of interest in and motivation towards using their opportunities to participate in the pedagogical sessions offered (Cangelosi et al., 2009; Grongstad et al., 2020).

Context–mechanism–outcome configuration 5

Time allocated for pedagogical development (context) and access to support and guidance from a practice education facilitator (mechanism resource) demonstrate to clinical supervisors that the organisation considers the clinical supervisor role important; this enhances their interest in and motivation towards participating in pedagogical sessions (mechanism response), leading to a higher likelihood that clinical supervisors will use the resources offered to enhance their pedagogical competence (outcome).

4.2. Refined programme theory

The initial programme theory, developed in the first phase, hypothesised that psychosocial and interaction factors, organisational culture and teaching and learning components were contextual factors in the clinical learning environment that would influence clinical supervisors' response to resources provided by the practice education facilitator. This response to resources would then lead to the intended or unintended outcomes of using practice education facilitators in clinical nursing education.

The findings presented in the five context–mechanism–outcome configurations are synthesised in Fig. 3, which shows how constraining and enabling contextual factors in the clinical learning environment influence mechanisms that affect whether the use of a practice education facilitator will work as intended.

5. Discussion

This realist review aimed to clarify the value of using practice education facilitators in nursing education by exploring how, under what circumstances and why such roles can strengthen the quality of the clinical

learning environment for nursing students. Our review focused on the provision of guidance and support to clinical supervisors, which is a central role remit of practice education facilitators, and the refined programme theory offered five context–mechanism–outcome configurations that explain how various contextual components may influence the results of using practice education facilitators in nursing education. Fig. 3 illustrates how these five configurations are connected and how they impact each other. Although clinical supervisors may be experts within the clinical field, inadequate pedagogical training and lack of experience in the role is a well-known challenge in nursing education (Kamolo et al., 2017; Wu et al., 2020). Thus, there is a need to recognise that clinical supervisors require access to guidance and support in their roles. Findings from this review show that clinical supervisors who have someone to whom they can turn when facing unfamiliar and challenging situations are more likely to feel comfortable in their role. This positively affects the quality of supervision provided to students. Similar findings are reported in the reviews conducted by Lambert and Glacken (2004, 2005) and more recent research also points out the benefits of supporting clinical supervisors within the clinical environment (McSharry and Lathlean, 2017; Wu et al., 2017).

The practice education facilitator who acts as a liaison between the higher education institution and the placement provider is well-positioned to provide such support due to their familiarity with both fields. Whether clinical supervisors experience the practice education facilitator role as useful, however, depends on several factors. Findings indicate that facilitators' visibility and accessibility in the clinical area were essential because this affected the practice education facilitator's ability to promote the role and develop relationships with clinical supervisors. Familiarity with the role and the postholder promoted contact with the practice education facilitator for guidance and support. Thus, the time allocated to the practice education facilitators' role was essential and influenced whether the role was perceived to be valuable by the clinical supervisors (Carlisle et al., 2009; Lambert and Glacken, 2005). Those employed jointly in a higher education institution and the clinical field, especially, have been reported to experience a pull of expectations from both sides, which may affect practice education facilitators' accessibility and visibility within the clinical area (Sykes et al., 2014).

Personal attributes of the postholder were also found to be a factor influencing the value of the practice education facilitator role, and clinical credibility was identified to be a key attribute. Clinical credibility is a concept that is often mentioned as an important and valuable attribute for those working in nursing education (Cardwell et al., 2021). In this review, clinical credibility was identified as a prerequisite that assisted the practice education facilitator in developing a trusting relationship with clinical supervisors, who were more open to receiving support and guidance from someone they accepted as insiders in the clinical environment.

Similarly, Mallik and Hunt (2007) found that academic performance was viewed as less important than local expertise, and clinical credibility was found to be essential for the perceived success of the practice education facilitator role. In addition, good interpersonal and communication skills are key attributes that help enable practice education facilitators to network and contribute to enhanced collaboration between the higher education institution and the placement provider (Tuomikoski et al., 2020).

Furthermore, allocated time for the supervisor role was identified as a factor that influenced whether clinical supervisors perceived that nurse managers viewed the role as important by within the clinical area. Student supervision is often something that must be done on top of other duties and the dual role of being a practitioner and an educator can be challenging for clinical supervisors (Sørø et al., 2021). Combined with a heavy clinical workload, this may lead to a lack of motivation to develop competence in clinical teaching and assessment and a lack of interest in participating in pedagogical training sessions. This is unfortunate, since clinical supervisors' level of pedagogical competence impacts the quality of the clinical learning environment and nursing students' development of clinical competence (Wu et al., 2020.) Thus, initiatives

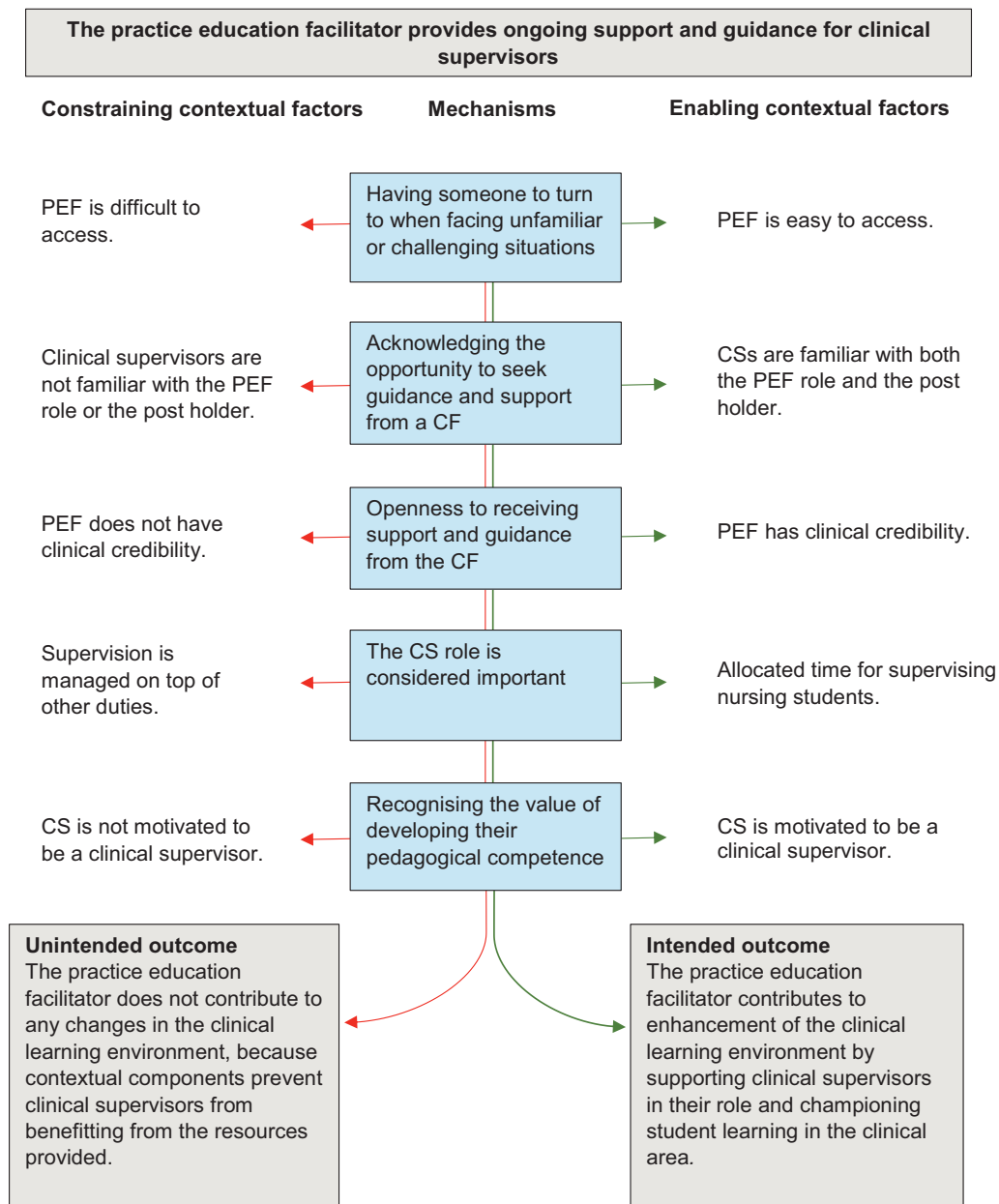


Fig. 3. Synthesis of the context–mechanism–outcome configurations, which explain how the practice education facilitator role works, for whom and under what circumstances. PEF = Practice education facilitator, CS = Clinical supervisor.

are needed that can promote clinical supervisors' motivation towards the role and help them recognise the value of developing their pedagogical competence.

5.1. Review strengths and limitations

We used the RAMESES publication standards (Wong et al., 2013) as a set of guidelines for rigorously and systematically reviewing and synthesising the included literature. The realist approach enabled the use of a breadth of data, and our findings may be applicable in several settings despite the variety characterising these roles.

A potential limitation of this review is the limited number of included studies that report explicitly on practice education facilitator roles. Moreover, few of the included studies report on the impact of these roles on the clinical learning environment for nursing students.

We therefore had limited empirical evidence supporting the outcome of interest for this review.

The strengths of this review include the rich data leveraged to support the findings regarding the key contextual factors and mechanisms influencing the results of using practice education facilitator roles in the learning environment. Furthermore, all the included studies were conducted in Scandinavia and other countries with placement models similar to those conducted in Norway.

5.2. Implications for future research

Future research should focus on the impact that practice education facilitator roles have on the supervision provided to nursing students. Moreover, research needs to explore the impact these roles have on the learning culture within placements. Scott et al. (2017) call for research to identify the professional and academic requirements for

practice education facilitator roles, which may provide further support for the role.

5.3. Implications for practice

Our realist review provides knowledge for the nursing education and clinical fields that details the importance of practice education facilitators. The practice education facilitator role is valuable for the education of competent nurses, because it enables clinical supervisors to provide a supportive clinical learning environment. Furthermore, the provision of support and guidance to clinical supervisors may promote the recruitment and retention of nurses clinically; if students are supported adequately throughout the placement, they may return to the ward after they are qualified (Lambert and Glacken, 2004; Scott et al., 2017).

6. Conclusion

This is the first review offering theory-based explanations of how, under what circumstances and why the practice education facilitator role may strengthen the clinical learning environment for nursing students. Knowledge of key contextual components that might influence the outcome of using practice education facilitators may be useful to further develop this role.

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Declaration of Competing Interest

All authors state that they have no conflicts of interest to declare in relation to this study.

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Appendix A. Supplementary data

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