



## Review

## Challenges faced by student nurses and midwives in clinical learning environment – A systematic review and meta-synthesis

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## ARTICLE INFO

## Keywords:

Student nurse

Student midwife

Challenges

Clinical instructors

Clinical staff (clinical nurses and midwives)

Clinical Learning Environment (CLE)

## ABSTRACT

**Objectives:** This systematic review aimed to offer insight and understanding, through synthesis of findings from studies that report on perspectives of student nurses/midwives, clinical instructors, clinical nurses/midwives on the challenges faced by student nurses/midwives in the clinical learning environment (CLE).

**Design:** All primary qualitative research studies published in the English language that reported on the views of student nurses/midwives, clinical instructors and clinical nurses/midwives on the challenges faced by student nurses/midwives in the CLE were included.

**Data sources:** The electronic databases of Medline EBSCO (1946-), CINAHL (1970), Embase Ovid (1974-), Scielo, WHOLIS (2002-), ASSIA (1985-), Web of Science (1956-), PsycINFO (1800s-) and Maternal and Infant Care (1970-) were searched in November 2019.

**Review methods:** Retrieved papers were reviewed independently by two authors for selection by title, abstract and full text, and two authors agreed for inclusion of the papers. The COREQ criteria checklist was used for assessment of methodological quality of the included studies.

**Results:** The review included 32 studies published over 22 years between 1997 and 2019 involving 853 nursing/midwifery students, clinical instructors, and clinical nurses/midwives from 14 countries. Three key themes emerged: 'The support structure', 'Personal factors', and 'Planning and organisation – influence of extrinsic factors'.

**Conclusion:** Attitude of clinical staff, instructors, and significant others had a major influence on students' clinical learning. Lack of a sense of belongingness and self-motivation to learn, and perceived fear of doing errors were some of the demotivating factors. Lack of resources to facilitate need-based training, staff shortages, workload and inconsistencies between theory and practice were other key challenges in the CLE. Understanding the challenges faced by students in clinical practice can help overcome the barriers leading to development of competent and confident nurses and midwives.

### 1. Background

Clinical learning is an indispensable part of nursing and midwifery education programme and an integration of theoretical and practical learning experiences which plays an important role in the acquisition of

professional abilities (Ironsides et al., 2014; Jonsén et al., 2013; Aghamohammadi-Kalkhoran et al., 2011). An optimal clinical learning environment (CLE) brings a positive impact on students' professional development (Phillips et al., 2017; Chesser-Smyth, 2005); however, there are many challenging factors which influence students' learning in

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<https://doi.org/10.1016/j.nedt.2021.104875>

Received 23 November 2020; Received in revised form 11 February 2021; Accepted 10 March 2021

Available online 18 March 2021

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the CLE (Hartigan-Rogers et al., 2007). Inappropriate clinical evaluation, unsuitable programming of clinical education, and organisational shortcomings (Rafiee et al., 2014), unsupportive learning environment (Baraz et al., 2015), inadequate clinical supervision (Rajeswaran, 2017), and difficulties in transferring theoretical knowledge into clinical practice (Mabuda et al., 2008; Sharif and Masoumi, 2008) are viewed as hindrance in clinical learning.

Communication being a key factor in CLE training students on effective communication before exposing them to the CLE is vital (Chamberlain, 1997). Regular observation and supervision of students' practice (Jamshidi et al., 2016), use of trained mentors, sufficient support staff and longer allocations to the clinical areas (Begley, 1999), counselling students to overcome their anxiety, and ongoing training of the mentors and preceptors (Rajeswaran, 2017) are some of the recommended strategies to overcome the possible challenges in CLE. Understanding the factors that influence clinical learning and their complex dynamics allows holistic consideration of students' needs (Leea et al., 2018). Therefore, this systematic review was conducted to identify the challenges faced by students in the CLE to improve effectiveness of clinical learning and help stakeholders to solve these challenges through developing practical and need-based strategies.

'Student nurses/midwives', in this systematic review, present the trainee students undergoing their nursing/midwifery training. 'Clinical staff' present the qualified and registered clinical nurses/midwives who are employed in the clinical settings where the studies have been conducted. Clinical staffs also include the mentors or preceptors who are clinical staffs and play a role in supporting and guiding students in clinical practice. 'Clinical instructors' present the tutors and lecturers from the academic institutions or universities. 'Significant others' refer to patients, patients' family and peers who have been described in the studies to have influence on student nurses'/midwives' clinical experience in the CLE. CLE refers to the clinical settings where student nurses/midwives are posted as part of their training programme to gain clinical experience.

### 1.1. Aim

To synthesise best available evidence on the challenges faced by student nurses/midwives in the CLE.

### 1.2. Objectives

To determine the perspectives of student nurses/midwives, clinical instructors, clinical staffs (clinical nurses/midwives) on the challenges faced by student nurses/midwives in the CLE.

## 2. Methods

### 2.1. Study protocol

A study protocol was developed and registered in PROSPERO in 2019.

(PROSPERO 2019 CRD42019119690 Available from [https://www.crd.york.ac.uk/prosperto/display\\_record.php?ID=CRD42019119690](https://www.crd.york.ac.uk/prosperto/display_record.php?ID=CRD42019119690))

### 2.2. Criteria of studies

This systematic review includes all primary qualitative research studies published in the English language that reported on the views of student nurses/midwives, clinical instructors and clinical staffs on the challenges faced by student nurses/midwives in the CLE. Quantitative studies or studies that were published in other languages were excluded.

The PICo (P- Population, I- Interest, Co- Context) approach was used to break down the specific objectives and underpin the search strategy.

**Population (P):** This included the population of interest. The terms to identify Population (P) included student nurses/midwives, clinical instructors (tutors/lecturers) and clinical staffs (clinical nurses/midwives/preceptors/mentors) (e.g. 'nurse' OR 'nurses' AND/OR 'midwife' OR 'midwives').

**Interest (I):** This included the views or experiences. Terms to identify the Interest (I) were related to identifying views and perspectives (e.g. 'view or views' OR 'Perspective or perspectives') of the participants.

**Context (Co):** This included the context around the CLE. Terms to identify the Context (Co) included challenges in CLE (e.g. 'challenge' OR 'challenges' OR 'barrier' OR 'barriers').

### 2.3. Search and selection

The electronic databases of Medline EBSCO (1946-), CINAHL (1970), Embase Ovid (1974-), Scielo, WHOLIS (2002-), ASSIA (1985-), Web of Science (1956-), PsycINFO (1800s-) and Maternal and Infant Care (1970-) were searched for primary and qualitative research studies that reported on views of student nurses/midwives, clinical instructors and nurses/midwives on the challenges in CLE. A sample of the search result from three of the databases are provided in Appendix 1.

Each retrieved paper was reviewed independently by two reviewers (MD, JJ), (KR, AD), and (DS, KM)) using Covidence by title, abstract and full text. Disagreements were discussed with the third author (SP) for a decision on inclusion or exclusion.

### 2.4. Assessment of methodological quality

A modified version of the COREQ quality criteria checklist developed by Tong et al. (2007) incorporating four additional items related to aim (no.9), design (no.11 and 12) and analysis (no.32) was used for assessment of methodological quality of the included studies (Appendix 2). Each study was independently reviewed by two authors for assessment of methodological quality, and disagreements were resolved by the third author for a decision on inclusion or exclusion.

### 2.5. Data extraction

A data extraction tool (Table 1) was developed to extract data from included studies by two independent reviewers.

### 2.6. Data analysis

NVivo software package was used to manage data. Thematic analysis was conducted using Braun and Clarke's (2006) framework following the steps of familiarising with data, generating codes, grouping the codes to derive sub-themes, and grouping the sub-themes meaningfully to derive the themes, and finally producing the findings. Participants' verbatim were used as quotations to illustrate the findings.

## 3. Results

The search resulted in a total of 32 studies following selection by title, abstract, full text, and assessment of methodological quality (Fig. 1).

A total of 11,759 studies (after removing duplicates ( $n = 11$ )) were retrieved from database searching, of which 118 studies were included from selection by title and abstract for full text review. A total of 84 studies were excluded from selection by full text (not related to the inclusion criteria ( $n = 30$  studies) and wrong study design ( $n = 54$  studies)) leaving 34 studies for assessment and reporting of methodological quality. The 34 studies were reviewed for methodological quality using the modified version of the COREQ criteria checklist, and of these, two studies, through independent review by two authors, were concluded to have low scores in methodological quality related to study design

**Table 1**  
Summary characteristics of included studies.

Sl. No.	Author(s), year, and location	Aim of the study	Study design	Participants and sample size	Methods of data collection	Methods of data analysis	Key findings reported by author(s)
1	Ahmadi et al. (2018b) Iran	To explore how midwifery students in Iran experience learning clinical skills.	Qualitative inquiry approach	Midwifery students (n = 18)	Individual and focus group interviews	Content analysis	Lack of resources Lack of preparedness Lack of support from clinical instructors and staff Lack of confidence of clinical instructors Gap between theory and practice. Motives for positive learning: Having interest in midwifery practice, trying to obtain the competency for passing the final exam, and working as a midwife afterwards Fear of doing harm
2	Ahmadi et al. (2018a) Iran	To examine and explore the experiences of fear among midwifery students.	Descriptive qualitative approach	Undergraduate midwifery students (n = 10)	Individual interviews	Content analysis	Fear of encountering their first childbirth Fear of penalties General physical and psychological consequences Interference in adopting the professional role Lack of respect
3	Ahn and Choi (2019) South Korea	To explore and describe, comprehensively and thoroughly, the characteristics of incivility that nursing students experience during clinical practicum.	Exploratory and qualitative design	Nursing students (n = 32)	Focus group interviews	Thematic analysis	Lack of role models Excessive demands Hostile behaviour
4	Albloushi et al. (2019) South Arabia	To learn more about the meaning of sense of belonging, the consequences of sense of belonging, and the factors that affect Saudi female nursing students' sense of belonging in clinical settings.	Interpretive description using qualitative research method	Female Saudi fourth-year nursing students (n = 16)	Individual interviews	Thematic analysis	Mean behaviour Feeling safe, and sense of belongingness. Attitudes of nursing staff, preceptors and other health care professionals Lack of preparation at the university, lack of English skills. Facilitators: Presence of clinical nurse educators, positive attitude among nursing staffs, feeling valued, motivation to learn
5	Aliafsari et al. (2018) Iran	To explain the Iranian nursing students' experiences of their clinical learning environment.	Qualitative study	Undergraduate nursing students (n = 21)	Individual interviews	Conventional content analysis	Lack of consistency in education and teaching. Lack of clarity in evaluation procedures Limited opportunities to learn Inappropriate (continued on next page)

Table 1 (continued)

Sl. No.	Author(s), year, and location	Aim of the study	Study design	Participants and sample size	Methods of data collection	Methods of data analysis	Key findings reported by author(s)
							communication and interaction
6	Arkan et al. (2018) Turkey	To explore nurse students' experiences related to clinical learning environments, factors effecting to clinical learning process.	Descriptive qualitative design	Nursing students (n = 14)	Individual interviews	Content analysis	Bullying and discrimination Presence of clinical instructors  Nurses' positive and negative approaches  Positive and negative interaction with friends  Culture of the clinical environment Limited educational facilities Students' perception of their role Feelings of isolation
7	Atakro et al. (2019) Ghana, West Africa	To explore the experiences of undergraduate nursing students in selected teaching hospitals in Ghana.	Qualitative explorative descriptive design	Undergraduate nursing students (n = 35)	Semi-structured interviews	Thematic content analysis	Gap in the application of the nursing process.  Extensive clinical exposure was viewed as crucial in the learning process.  Inadequate and lack of effective teaching to perform patients' physical examinations. Insufficient qualification of nursing instructors
8	Baraz et al. (2015) Iran	To determine the learning challenges of nursing students in clinical environment.	Qualitative research method	Undergraduate nursing students (n = 18)	Individual semi-structured interviews	Content analysis	Unsupportive learning environment Attributes of clinical training placement
9	Bawadi et al. (2019) Jordan	To explore the perceptions of Jordanian nursing students and clinical instructors related to clinical training and the learning environment.	Descriptive qualitative approach- Interpretative phenomenological (IP) approach	Nursing students (n = 28) and clinical instructors (n = 12)	Focus group interviews	Thematic analysis- Interpretative Phenomenological Analysis (IPA)	Attributes of clinical instructors in clinical placement  Attributes of clinical nursing curriculum
10	Buthelezi et al. (2015) South Africa	To describe the learning experiences of male nursing students during placement in clinical settings, and how these impact on their self-esteem.	Qualitative research approach, descriptive phenomenological design	Male nursing students (n = 18)	Focus groups	Thematic analysis	Attributes of nursing students Decreased sense of self-worth Influence on self-esteem The influence of cultural beliefs constraints in the clinical learning process, the impact on the students' self-esteem, and social support
11	Chamberlain (1997) South of England	To identify factors which affect the learning of clinical skills by student midwives.	An ethnographic, grounded theory design	Student midwives, midwives, midwifery managers and teachers. Student Midwives from 5 clusters with 5 students from each cluster (n = 25)	Observation, Interviewed with semi structured questionnaires	Comparative method of data analysis	Anxiety, inadequate instruction, and supervision in the clinical area. Lack of support and continuity of supervision in the clinical practice. Poor communication among student and nursing staff.

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Table 1 (continued)

Sl. No.	Author(s), year, and location	Aim of the study	Study design	Participants and sample size	Methods of data collection	Methods of data analysis	Key findings reported by author(s)
12	Chan et al. (2013) Hong Kong	To explore the experiences of Hong Kong male nursing students in clinical settings and to determine how their experiences compared with those from other countries.	A qualitative ethnographic study design	Male full time Nursing student (n = 18)	Individual face-to-face interviews	content analysis	Frequent shifting of supervising midwives Lack of competency of supervising midwives. Dynamics of working in hospitals working with female patients gender perspective on nursing culture
13	Cooper et al. (2005)WI	To explore the cognitive and emotional responses of baccalaureate nursing students during their final clinical experience.	A qualitative design using naturalistic inquiry	Final Year Nursing Students (n = 32)	Narrative reflection about their clinical experience.	Descriptive qualitative data analysis	Lack of understanding of thoughts and feeling of students.  Need to encourage students for their good work  Providing clear, objective feedback to students in regular basis.  Support to feel confident/capable instead of helpless in the clinical.
14	Dadgaran et al. (2013) Iran	To describe the role of sociocultural factors and elements in the clinical learning of undergraduate nursing students.	Qualitative approach	Under graduate nursing students. (n = 21)	Semi-structured and interactive interviews	Qualitative content analysis by using MAXQDA 2010 software	Coordination of reality vs expectations. Society and cultural influence. Promotion of theoretical knowledge and clinical skills. Student related factors like tendency, motivation, experience, self-confidence, interest and curiosity
15	Donley and Norman (2018) England	To understand nursing students' perspectives of factors that affected their clinical learning experiences in general practice placements.	Qualitative, phenomenological enquiry	Undergraduate nursing students (n = 9)	Personal interviews and focus groups discussion.	Thematic analysis	Lack of a hierarchy in general practice Need of one-to-one mentor relationship. Need of receiving positive feedback.  Need of student-centered teaching strategies conducive to successful learning.
16	Farazi et al. (2018) Iran	To explore and describe the clinical education problems and strategies to improve it from the perspective of nursing students and clinical nursing educators.	Qualitative approach	Clinical nursing educators (n = 5) and nursing students (n = 35)	Semi-structured individual interviews	Qualitative content analysis- Graneheim and Lundman for data analysis	Fear of criticism, doing the wrong procedure, scoring and evaluation. Insufficient readiness due to lack of confidence in clinical skill and inadequate mastery of theoretical knowledge Incompetency of clinical educators  Unpleasant atmosphere of clinical environment such as inappropriate behaviour of doctors, nursing staff.  Lack of Clinical nurses' participation in clinical education.

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Table 1 (continued)

Sl. No.	Author(s), year, and location	Aim of the study	Study design	Participants and sample size	Methods of data collection	Methods of data analysis	Key findings reported by author(s)
17	Fenwick et al. (2012) Australia	To explore the experiences of newly qualified midwives and to describe the factors that facilitated or constrained their development during the transition from student to registered midwife.	Qualitative descriptive approach	Midwifery students (n = 16)	Interview	Thematic analysis	Lack of positive midwife-to-midwife relationships Lack of continuity with women and midwifery colleagues Lack of support
18	Garner et al. (2014) India	To illuminate student nurses' perceived challenges of nursing in India.	Photovoice, a qualitative participatory action research	Nursing students (n = 14)	Photographs, individual reflection, and field notes.	Photovoice methodology -selecting, contextualising and codifying	Lack of proper hierarchal system Limited nursing workforce capacity. Lack of respect in the society and family. Lack of knowledge, advancing technology, need specialty certification among nursing staff. Insufficient pay to meet the basic human needs. Lack of safety and security in the profession. Clinical training
19	Günay and Kılınç (2018) Turkey	To determine the transfer of theoretical knowledge into clinical practice by nursing students and the difficulties they experience during this process.	Qualitative phenomenological approach	Nursing students (n = 30)	Focus group interviews	Content analysis	Clinical knowledge  Clinical skills inadequate  Guidance and communication  Inadequacy in receiving clinical guidance  Lack of appreciation Hospital environment Expectations of instructors The importance of mentors in CLEs
20	Harrison-White and Owens (2018) UK	To collect experienced adult field Link Lecturers' views on the challenges facing student nurses in CLEs.	A methodological approach,	Link lecturers (n = 15)	Focus group and one-to-one interviews	Analytical steps outlined in Corbin and Strauss	Relationship between student and mentor as a potential critical challenge faced by students in CLEs  Access to learning and 'learning to get through' Inappropriate communication  Ineffective role model
21	Jahanpour et al. (2016) Iran	To find out the factors that can impede nursing students' clinical learning.	Qualitative research	Nursing students (n = 12)	Reflective journal writing	Content analysis	Theory-Practice gap Ineffective communications  Lack of adequate readiness among students
22	Jamshidi et al. (2016) Iran	To explore Iranian nursing students' challenges in the clinical learning environment.	Qualitative research	Nursing students (n = 17) and instructors (n = 3)	Semi-structured interviews and focus groups.	Content analysis	Emotional reactions. Inefficient educational programme  Inefficient clinical teaching  Competency of the
23	Jasemi et al. (2018) Iran	To identify challenges in the field of clinical nurse education.	A qualitative content analysis study.	Student nurses (n = 9), qualified nurses (n = 3) and nursing educators (n = 2)	Semi-structured interviews were used to collect the data by giving field notes to the participants.	The qualitative data software program MAXQDA	

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Table 1 (continued)

Sl. No.	Author(s), year, and location	Aim of the study	Study design	Participants and sample size	Methods of data collection	Methods of data analysis	Key findings reported by author(s)
							instructors
							Lack of professional interaction
							Inefficient evaluation methods
24	Killam and Heerschap (2013) Canada	To explore senior nursing students' perceptions of challenges to learning within the clinical setting.	Qualitative descriptive design	Third (n = 6) and fourth year (n = 5) nursing students of a four year baccalaureate nursing programme	Focus group interview	Content analysis	Perceived fear and exhaustion among students  Theory-practice gap
25	Levett-Jones et al. (2015) Australia	To explore the concerns of first year bachelor of nursing students from one Australian university as they prepared for their first clinical placement.	Qualitative design	1st year nursing students (n = 144), (RR = 55%)	Responses to an open-ended question	Content analysis	Perceived fear of doing mistakes or harming the patients Anxiety and stress related to coping to the CLE Lack of confidence due to limited preparedness
26	Manninen et al. (2013) Sweden	To explore and understand first year nursing students' experiences of learning at a clinical education ward.	Qualitative design	1st year Nursing students (n = 19)	Seven individual interviews and three group interviews	Qualitative Content analysis	Mutual relationship between students and a sense of belongingness
27	Mattilla (2010) Finland	To describe international student nurses' experiences of their clinical practice in the Finnish health care system.	Qualitative design	International student nurses of African and Asian origin (n = 14)	Semi-structured interviews	Qualitative Content analysis	Sense of awareness of own potential and empowerment.  Negative experiences created weakened their self-esteem.
28	Msiska et al. (2014) Malawi, Africa	To explore the students' perceptions of their clinical learning experience, in view of the problems prevalent in the various clinical settings that are used as teaching hospitals.	Hermeneutic phenomenological study	Nursing college graduates (n = 30)	Conversational interviews	Phenomenological analysis	Feelings of fear, frustration, and difficulties in interacting with the staff. Lack of support from nursing lecturers and clinical nursing staffs.
							Staffing shortages, and students being treated as part of workforce
							Lack of resources limiting the opportunity to learn
29	Nabolsi et al. (2012) Jordan	To explore the experience of nursing students in their clinical training.	Phenomenological qualitative approach	Student nurses (n = 30)	Focus groups	Interpretive approach	Supportive CLE  Instructors' attitude towards students
							Incongruence of expectations between student, instructors, preceptors, and nursing staff
30	Najafi et al. (2019) Iran	To explore nursing students' experiences in a clinical learning environment and the way they responded to these experiences.	Qualitative research design of the grounded theory methodology	Nursing Students (n = 19), nursing instructors (n = 4) and clinical nurses (n = 3)	Semi-structured interviews, field notes and observation	Thematic analysis using Strauss and Corbin's approach	Theory-practice gap Confusion of identity  Inefficient educators, unfavourable clinical plans and inappropriate clinical environment  Discrimination  Lack of confidence

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Table 1 (continued)

Sl. No.	Author(s), year, and location	Aim of the study	Study design	Participants and sample size	Methods of data collection	Methods of data analysis	Key findings reported by author(s)
31	O'Mara et al. (2014) Canada	To explore students' perceptions of a challenging clinical learning environments.	Qualitative design using an Interpretive Descriptive method	Undergraduate nursing students (n = 54)	Focus groups	Thematic analysis	Instructors' and clinical staffs' attitude Attitude of clinical instructors, and clinical staffs.  Personal motivation to learn
32	Rabori et al. (2019) Iran	To explore and to evaluate the nursing students' ethical challenges in the clinical settings in Iran.	Qualitative	Nursing students (n = 37)	Semi-structured interviews	Conventional qualitative content analysis	Personality factors Lack of authority Inadequate support

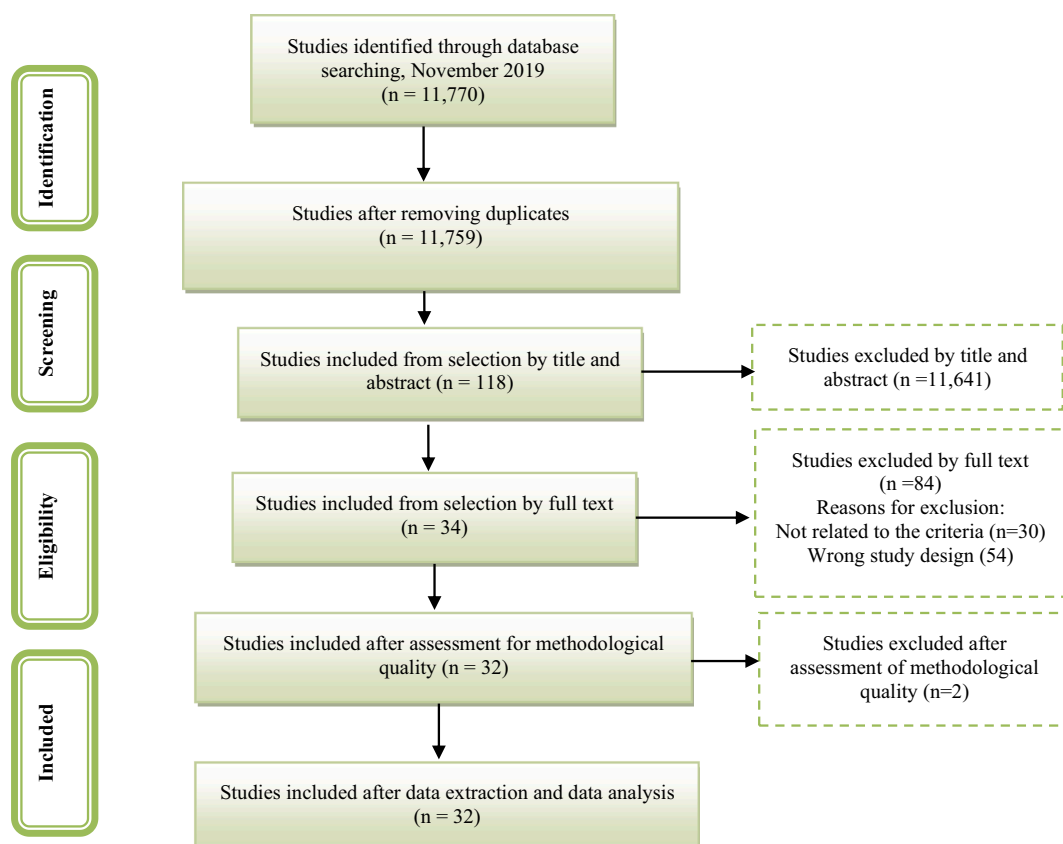


Fig. 1. PRISMA flow chart presenting search results.

(Appendix 3) and hence, were excluded leaving 32 studies for data extraction and thematic analysis.

### 3.1. Summary characteristics of included studies

The results showed that the 32 studies (Table 1) were published over 22 years between 1997 and 2019 in 14 countries (eight high income (12 studies) and six middle and low income (20 studies) countries) involving over 853 participants including nursing students (n = 717 (male students (n = 36)), student midwives (n = 53), clinical staff (nurse and midwives) (n = 6) and clinical instructors (n = 41). Data were collected using individual interviews (13 studies), focus groups (7 studies), both (five studies) and other methods such as observation, reflection, field notes, response to open ended question, and photographs (seven

studies).

### 3.2. Thematic analysis

Findings from all studies were compared, contrasted, aggregated, integrated, and synthesised to derive the themes. Three key themes emerged: 'The support structure', 'Personal factors', and 'Planning and organisation – influence of extrinsic factors'. Each theme had several sub-themes (Fig. 2). Table 2 presents the themes and subthemes reported in the studies.

### 3.3. Theme 1 – The support structure

Lack of a support structure in the CLE was a key challenge and was



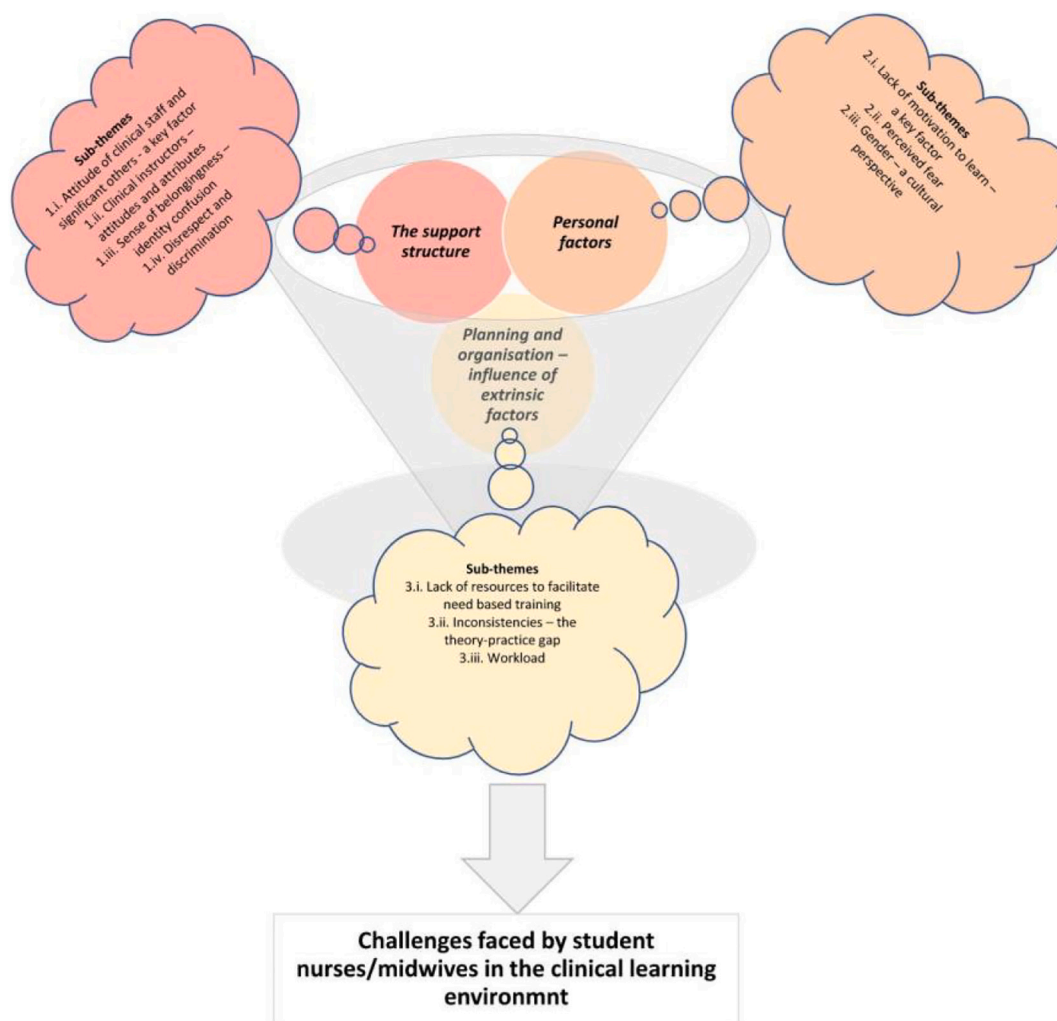


Fig. 2. Diagrammatic presentation of themes and subthemes.

reported in 31 of the 32 studies. Four interlinked sub-themes were identified and presented with participants' verbatim as illustrations.

### 3.3.1. 1.i. Attitude of clinical staff and significant others - a key factor

Students' adjustment to the CLE and their learning was strongly determined by and dependent on the clinical staffs' attitude. Positive attitude of clinical staffs, primarily the nurses and midwives, had a positive impact on the overall learning process.

"It makes a big difference to your learning...if they (clinical staff) are supportive."

(Midwifery student) (Fenwick et al., 2012, p. 2057, Australia).

"There were no barriers at all - that is what helped me learn."

(Nursing students) (Donley and Norman (2018), p. 41, England).

However, in contrast, negative attitude of staffs was described as having a negative impact on students' learning in the CLE.

"Their (midwives') attitude often is...because you're a student you don't need to do that right now. ...you need to get to basics."

(Midwifery student) (Chamberlain, 1997, p. 89, South of England).

Behaviour of clinical staffs was dependent on attitude of the person-in-charge of the clinical area.

"Nurses treat us differently when the supervisor is around...If a more senior nurse is cooperative and likes to help students then the rest of the nurses tend to be helpful too"

(Nursing student) (Bawadi et al., 2019, p. 5, Jordan).

Attitude and behaviours of mentors or preceptors also had a significant influence on students' learning in the CLE. Being accepted and valued by a preceptor had a positive impact on students' learning.

"Some preceptors take on more of an authority figure, the students become afraid to ask questions."

(Nursing student) (Killam and Heerschap, 2013, p. 686, Canada).

"Some preceptors are overloaded with responsibilities and working night shifts or long shifts makes them tired and not capable of following on students' learning needs".

(Nursing student) (Nabolsi et al., 2012, p. 5852, Jordan).

Attitude of patients, sometimes, was described as being influential in the learning process in the CLE.

"Patient relatives' attitude towards me changes sometimes when they realise I am a student."

(Nursing student) (Arkan et al., 2018, p. 130, Turkey).

**Table 2**  
Themes and subthemes reported by included studies.

Author(s) and Year	Theme 1 – The support structure (n = 31) 1.i. Attitude of clinical staff and significant others - a key factor (n = 22) 1.ii. Clinical instructors – attitudes and attributes (n = 20) 1.iii. Sense of belongingness –identity confusion (n = 17) 1.iv. Disrespect and discrimination (n = 17)	Theme 2 – Personal factors (n = 28) 2.i. Lack of motivation to learn – a key factor (n = 23) 2.ii. Perceived fear (n = 20) 2.iii. Gender – a cultural perspective (n = 4)	Theme 3 – Planning and organisation – influence of extrinsic factors (n = 20) 3.i. Lack of resources to facilitate need-based training (n = 17) 3.ii. Inconsistencies – the theory-practice gap (n = 14) 3.iii. Workload (n = 7)
Ahmadi et al. (2018a)		2.ii	
Ahmadi et al. (2018b)	1.i, 1.ii	2.ii	3.i, 3.ii
Ahn and Choi (2019)	1.ii, 1.iv		3.i, 3.iii
Albloushi et al. (2019)	1.i, 1.ii, 1.iii, 1.iv	2.ii	
Aliafsari et al. (2018)	1.i, 1.ii, 1.iv		3.i, 3.ii
Arkan et al. (2018)	1.i	2.ii, 2.iii	3.i, 3.ii
Atakro et al. (2019)	1.i, 1.iii		3.i, 3.ii, 3.iii
Baraz et al. (2015)	1.i, 1.ii, 1.iii, 1.iv	2.i, 2.ii	3.i, 3.ii
Bawadi et al. (2019)	1.i, 1.ii, 1.iv	2.i	3.i, 3.ii
Buthelezi et al. (2015)	1.ii, 1.iv	2.iii	
Chamberlain (1997)	1.i, 1.ii, 1.iii	2.i, 2.ii	
Chan et al. (2013)	1.i, 1.iv	2.ii, 2.iii	
Cooper et al. (2005)	1.iii	2.i, 2.ii	
Dadgaran et al. (2013)	1.i, 1.iv	2.i, 2.ii	3.i
Donley and Norman (2018)	1.i	2.i	
Farazi et al. (2018)	1.ii, 1.iv	2.i, 2.ii	
Fenwick et al. (2012)	1.i, 1.ii, 1.iv	2.i, 2.ii	3.i
Garner et al. (2014)	1.iii, 1.iv	2.ii, 2.iii	3.i, 3.ii, 3.iii
Günay and Kılınc (2018)	1.i, 1.ii, 1.iii, 1.iv	2.i, 2.ii	3.i, 3.ii
Harrison-White and Owens, 2018	1.i, 1.ii, 1.iii	2.i, 2.ii	3.i
Jahanpour et al. (2016)	1.i, 1.ii		3.ii, 3.iii
Jamshidi et al. (2016)	1.iv	2.i, 2.ii	3.i
Jasemi et al. (2018)	1.ii, 1.iii, 1.iv	2.i	3.i, 3.ii
Killam and Heerschap (2013)	1.i, 1.ii, 1.iii	2.i, 2.ii	3.i, 3.ii, 3.iii
Levett-Jones et al. (2015)	1.i, 1.iii	2.i, 2.ii	3.i, 3.ii, 3.iii
Manninen et al. (2013)	1.i, 1.iii		
Mattilla (2010)	1.iii	2.i	
	1.i, 1.ii, 1.iii, 1.iv	2.i, 2.ii	3.i, 3.iii

**Table 2 (continued)**

Author(s) and Year	Theme 1 – The support structure (n = 31) 1.i. Attitude of clinical staff and significant others - a key factor (n = 22) 1.ii. Clinical instructors – attitudes and attributes (n = 20) 1.iii. Sense of belongingness –identity confusion (n = 17) 1.iv. Disrespect and discrimination (n = 17)	Theme 2 – Personal factors (n = 28) 2.i. Lack of motivation to learn – a key factor (n = 23) 2.ii. Perceived fear (n = 20) 2.iii. Gender – a cultural perspective (n = 4)	Theme 3 – Planning and organisation – influence of extrinsic factors (n = 20) 3.i. Lack of resources to facilitate need-based training (n = 17) 3.ii. Inconsistencies – the theory-practice gap (n = 14) 3.iii. Workload (n = 7)
Msiska et al. (2014)			
Nabolsi et al. (2012)	1.i, 1.ii	2.i	3.ii
Najafi et al. (2019)	1.i, 1.ii, 1.iii, 1.iv	2.i, 2.ii	3.ii
O'Mara et al. (2014)	1.i, 1.ii, 1.iii	2.i, 2.ii	
Rabori et al. (2019)	1.ii, 1.iii, 1.iv	2.i	

Peers' attitude was reported to have, both, positive and negative impact in the learning process.

“We always work together with my friends and help each other to make up for each other. Sometimes we visit patient together and support each other during practices”

(Nursing student) (Arkan et al., 2018, p. 130, Turkey).

### 3.3.2. 1.ii. Clinical instructors – attitudes and attributes

A total of 20 studies reported on clinical instructors' attitudes and characteristics, and their influence in learning process in the CLE. Presence and regular supervision provided by a clinical instructor were highly valued as key factors in facilitating a positive learning experience.

“Some instructors put a lot of stress on us and hurry us...some of them don't let us do the tasks at all.”

(Midwifery student) (Ahmadi et al., 2018b, p. 67, Iran).

While some reported this as being a motivating factor, others described how it had a negative impact on students' learning process. This was mostly related to the clinical instructors' lack of confidence or lack of interest to engage in teaching or enhancing students' learning.

“There was no instructor who could practically and professionally execute ideal care in the clinical environment. Mostly they had low skills and capabilities, their practical skill was low.”

(Nursing student) (Jasemi et al., 2018, p. 24, Iran).

The communication and collaboration among clinical staff and clinical instructors were acknowledged as a crucial factor in CLE.

“The communication skills of the instructors are very important. When the instructor cannot communicate with nurses, how do nurses collaborate with students?”

(Nursing student) (Aliafsari et al., 2018, p. 220, Iran).

While presence and regular supervision by clinical instructors were

valued, a few students reported this as being the most stressful factor.

“I can say the most stressful things are the supervisors because whenever they come ... they don't look at positives, they only look at the bad things... So when you realise that the lecturer has come, you became tensed up and stressed.”

(Nursing student) (Msiska et al., 2014, p. 39, Africa).

“Tutors can make or break the clinical experience to the point that some students don't want to continue”

(Nursing student) (O'Mara et al., 2014; Rabori et al., 2019, p. 211, Canada).

However, in general, support from a clinical instructor was viewed as an important factor in the CLE.

“My instructor doesn't support me...When I am supported, I can provide better care for my patients. My instructor does not respect me in front of the patients or the nurses. I feel like an orphan in the hospital.”

(Nursing student) (Rabori et al., 2019, p. 1986, Iran).

### 3.3.3. 1.iii. Sense of belongingness –identity confusion

A sense of being accepted and recognised as part of the team in the clinical environment, reported in 17 studies, was described as an important factor in the learning process.

“A sense of belonging means to me being accepted by the nursing staff and when nursing staff provide help and support and...give me more than they take from me. When they make me feel like ... a team, when we have a positive communication, and when they teach me something that I didn't know before.”

(Nursing Student) (Albloushi et al., 2019, p.71, Saudi Arabia).

Being actively involved in the clinical work gave the students a feeling of being part of the team and accepted, and motivated them to learn.

“...when my tutor gave me that chance to just work on my own and consult her once in a while when I needed something, it just made me feel comfortable and accepted...”

(Nursing student) (Mattila et al., 2010, p.155, Finland).

A lack of sense of belongingness was a major demotivating factor in the CLE. Being ‘singled out’ or lack of positive communication and being treated as an outsider with lack of support structure in the CLE gave the students a feeling of isolation. Most students, especially the new first year students, found this experience challenging and scary. Students expressed the feelings of being discouraged and demotivated in the CLE with loss of self-identity.

“I...have identified the problem ... I needed expert knowledge to be able to do something about the situation ... I didn't get any help ... I think they might have neglected my analysis...”

(Nursing Student) (Manninen et al., 2013, p. 138, Sweden).

3.3.4. 1.iv. Disrespect and discrimination. Feelings of being disrespected or discriminated, reported in 17 studies, were other key challenging factors in the CLE.

“The way of treating practicing students was different among clinical nurses. One preceptor let me do a task, viewing it as appropriate, but another preceptor did not allow me to do the same.”

(Nursing Students) (Ahn and Choi, 2019, p.51, South Korea).

### 3.4. Theme 2 – personal factors

Feeling motivated to learn in the CLE was a facilitator in the learning process. Lack of confidence, preparedness, and motivation to learn were reported in 28 studies as challenges in the CLE. A number of personal factors were reported as being challenging in the learning process. Three subthemes were derived in this context.

#### 3.4.1. 2.i. Lack of motivation to learn – a key factor

Students described a number of reasons for their lack of motivation or interest to learn in the CLE, and this was reported in 23 studies. Lack of support from clinical instructor and clinical staffs and preceptors and peers, lack of respect from patients, and significant others were all contributing to the lack of enthusiasm to learn in the CLE.

“The behavior of the staff with the students is so unfair that they've lost their motive and don't like to work and learn anymore”

(Nursing student) (Dadgaran et al., 2013, p. 6, Iran).

Students' lack of confidence was described as a challenging factor in the learning process.

“Students often do not have enough confidence early in their internship...they gradually become more confident as they get used to the hospital and its environment...”

(Clinical Instructor) (Jamshidi et al., 2016, p. 4, Iran).

Clinical instructors, on the other hand, described students' self-motivation as the key to a positive learning experience.

“Some students are not interested or motivated to learn and expect to be spoon fed. However, they do need to study and if they do not do so then how is this fault of the instructor?”

(Clinical instructor) (Bawadi et al., 2019, p. 6, Jordan).

#### 3.4.2. 2.ii. Perceived fear

Students, in 20 studies, described their perceived fears around doing mistakes, or harming the patient, or failing in their evaluation, etc. as challenging factors in the CLE.

“I am concerned that I don't know enough and that I might make a mistake that could affect my nursing career or that I could harm a patient.”

(Nursing students) (Levett-Jones et al., 2015, p.306, Australia).

“I feel that I don't know what to do all the time ... He (the patient) gets anxious and so do I!... His life is in the hands of this machine and me!”

(Nursing student) (Cooper et al., 2005, p.297, WI).

“If I raise the concern during this placement, can I get my Practice Assessment Document signed? The students prefer to do this statement about poor practice after they finish [their placement]”

(Focus group with Link Lecturers) (Harrison-White and Owens, 2018, p.81, United Kingdom).

In one study students expressed their concerns over fear of litigation as a result of errors.

“In the classroom ... students are reminded of their responsibilities ... They [instructors] say that midwives often are not supported in healthcare settings by healthcare authorities. It is said that when the medical commission for forensic medicine wants to find the person who is guilty for negligence, obstetricians are always more supported than midwives ... This makes me worried. This is one of my concerns ...”

(Midwifery student) (Ahmadi et al., 2018a, p. 112, Iran).

The fear of receiving negative feedback was another demotivating factor.

“...It has happened to me a lot...They shiver...I asked some and they replied ‘we’re afraid of being told that we are making mistakes...’”

(Clinical Nurse) (Najafi et al., 2019, p. 5, Iran).

Being a student was described as feeling ‘powerless’ with fears around being victim of criticism due to lack of knowledge and required skills.

“if you’re a student...you’re really quite scared to deny anyone anything... I think it’s the pressure of ...not wanting to look dumb when you already feel so powerless.”

(Nursing student) (Killam and Heerschap, 2013, p. 686, Canada).

### 3.4.3. 2.iii. Gender – a cultural perspective

Societal expectation of the nursing/midwifery profession and professionals was considered as a challenging factor reported in four studies. Nursing and midwifery were considered as being female dominated professions. This was described, by male students, as being a demotivating factor, which affected their learning in CLE.

“All these problems we face them because now you are going to the female dominated world (female dominated profession) and nobody even told us (male students) that there is challenges in this female dominated world”

(Nursing student) (Buthelezi et al., 2015, p. 3, South Africa).

However, some described being a male student was a positive aspect in some ways.

“...the ward staff...are...sometimes rather happy to see male classmates...Both male and female staffs think that when a male student or male nurse becomes a member of staff in the ward, the atmosphere in the ward will improve...they rather appreciate and rather like to teach our male students.”

(Nursing student) (Chan et al., 2013, p. 298, HongKong).

## 3.5. Theme 3 – Planning and organisation – influence of extrinsic factors

Several other factors related to planning and organisation, reported in 20 studies, were described as challenging factors with three interrelated subthemes.

### 3.5.1. 3.i. Lack of resources to facilitate need-based training

Not having the required facilities, and access to physical resources was reported in 17 studies as one of the key factors in the CLE which hindered students’ learning.

“Most of the times we are allocated into government hospitals, the materials that are there usually are not enough; they cannot facilitate your learning. Most of the times we are improvising and we don’t do the ideal things ... So it really affected my learning”.

(Nursing student) (Msiska et al., 2014, p. 38, Africa).

Teaching hospitals were reported as being the ideal environments to facilitate students’ learning experience.

“It is very difficult to see some of these cases in the district hospitals because they are usually referred here. So, when we are placed here we get the opportunity to see them live and care for them. I think every student must experience the teaching hospital because of the conditions and machines”

(Nursing student) (Atakro et al., 2019, p. 5, West Africa).

### 3.5.2. 3.ii. Inconsistencies – the theory-practice gap

Fourteen studies reported on students’ concerns over the inconsistencies between the knowledge gained in the classroom and the reality in clinical practice. Some of these gaps were related to the differences between rationalising the theory behind the practice. Sometimes clinical staffs taught students the way they practiced, which was not necessarily evidence based or what students were taught in the classroom. These discrepancies led to lack of clarity in practice, and fear in performing a procedure with anxiety around doing errors or harming the patient or being blamed by the instructor or clinical staff or failing in clinical evaluation.

“Theoretical education and clinical practice are not taking place in parallel; what is given in the lecture and what I observe in the clinic are always different from each other...”

(Nursing students) (Günay and Kılınç (2018), p. 83, Turkey).

“We didn’t see many things that we have learnt in theoretical class. It is a difference between real and ideal practice. Many of nurses do not follow established nursing standards. If we follow standards, the nurses may laugh...and I dread this.”

(Nursing student) (Jahanpour et al., 2016, p. 2, Iran).

“In many cases, we still don’t have the necessary theoretical knowledge and due to this, we have not adequate self-confidence to do clinical procedures...”

(Nursing student) (Farazi et al., 2018, p. 4, Iran).

Inconsistencies around using a standard and uniform criterion for evaluation was narrated as challenging in CLE.

“Evaluations of the instructors are all according to their own tastes... I really don’t know by using which standard, the score was given.”

(Nursing student) (Baraz et al., 2015, p. 5, Iran).

### 3.5.3. 3.iii. Workload

Seven studies reported the high level of activity in the CLE, and clinical staff being busy and stressed, both, physically and mentally, as demotivating factors in the learning process.

“I am concerned about almost everything to do with clinical placement. The long hours and stress and the full on experience... it all worries me ... I don’t know how I will cope”.

(Levett-Jones et al., 2015, p. 306, Australia).

Students described the value of supervision in CLE and how it motivated them to learn new skills with rationale and reduced the gap between their theoretical knowledge and practical experience. However, lack of adequate staffing to facilitate students’ supervision in CLE was viewed as a major challenge.



“One nurse has to take care of more than eight patients so that she won’t get the time to give equal care or comprehensive care at the same time for all patient ... she may fail to meet all the needs of the patient.”

(Nursing student) (Garner et al., 2014, p. 394, India).

#### 4. Discussion

This systematic review offers evidence related to challenges faced by students in the CLE through a synthesis of findings from 32 studies. Three key themes: ‘The support structure’, ‘Personal factors’, and ‘Planning and organisation – influence of extrinsic factors’ emerged with several subthemes.

Lack of a support structure in the CLE and coping with attitudes of clinical staffs and clinical instructors were described as key challenges. Positive attitude of clinical staffs had a positive impact on students’ learning (Arkan et al., 2018; Dadgaran et al., 2013), and students valued this support. While a sense of being part of the team created a positive atmosphere for effective learning, feelings of isolation and lack of sense of belongingness were described as demotivating factors which had a negative impact in the learning process (Abloushi et al., 2019) consistent with findings from previous studies that highlight the role of interpersonal relationship with clinical team members in acquiring self-confidence and clinical competence (Dunn and Hansford, 1997).

Establishing caring relationships with students is a key to creating a caring learning environment (Asirifi et al., 2013). Poor interpersonal relationships between the students, instructors and clinical staff, with lack of collaboration and/or poor communication were identified as being some key factors that negatively influence students’ learning, consistent with findings from other studies (Mabuda et al., 2008; Papp et al., 2003). Clinical staffs’ support, and clinical instructors’ presence, support, supervision, and guidance were described as essential and motivating factors in the learning process which had a positive reinforcement (Baraz et al., 2015; Jamshidi et al., 2016; Dadgaran et al., 2013). However, a few clinical instructors highlighted the importance of students’ self-interest as the key in their learning process (Bawadi et al., 2019).

Perceived fear of harming the patient, being blamed or criticised, failing in the evaluation were major concerns among students (Ahmadi et al., 2018b; Harrison-White and Owens, 2018; Levett-Jones et al., 2015; Cooper et al., 2005). A few students described it as a state of feeling ‘powerless’ (Killam and Heerschap, 2013). This state of feeling vulnerable and helpless was a key demotivating factor in the learning process. Nursing being viewed as a female dominated profession, male students described themselves as being vulnerable due to the cultural perspectives and societal expectations (Buthlezi et al., 2015).

Availability of the physical resources to facilitate need based learning, access to care of patients, and adequate staffing to support and supervise students were reported as being crucial in the learning process (Atakro et al., 2019; Msiska et al., 2014; Garner et al., 2014). Emphasis on revisiting institutional policies with an effort to develop a stress-free learning environment has been a recommended strategy to facilitate students’ learning (Tharania et al., 2017).

One of the major challenges was the existing inconsistencies around the theoretical knowledge and practical experience in the clinical setting. This was a hindrance in the learning process leading to lack of confidence, and fear and anxiousness among students (Günay and Kılınc, 2018; Farazi et al., 2018; Jahanpour et al., 2016). Inconsistencies around students’ evaluation criteria in clinical practice was another demotivating factor (Baraz et al., 2015), which has been emphasised in other studies with recommendations to use objective criteria for clinical evaluation (Rafiee et al., 2014; Mamaghani et al., 2018).

Although limited to qualitative studies only, one of the strengths of this review is the unique presentation of views of the key stakeholders,

student nurses/midwives, clinical staffs, and instructors, on the challenges faced by students in the CLE. The large number (one-third) of the studies from Iran is one of the possible limitations; however, there were no obvious differences in the findings with regards to the social or cultural context. Non-inclusion of Gray literature is a potential limitation. Although findings of this systematic review are limited to the published studies only, a comprehensive amount of information was obtained from the 32 included studies with implications to improve students’ experience in the CLE.

#### 5. Conclusion

Unsupportive learning environment combined with unwelcoming clinical staff, clinical instructors’ lack of expertise, and a lack of sense of belongingness among students are a few key challenging factors with negative impact on students’ learning in the CLE. Understanding these factors is essential to take appropriate action to overcome the challenges. Although staffing, workload and access to resources required to meet learning outcomes are some of the issues, there are key challenges associated with reducing the theory-practice gap to maintain clarity and consistency in the learning pathway. Findings of this review has the potential to help the key stakeholders identify the challenges and help establish strategies to overcome the possible barriers in the learning process. This study has implications for academic and clinical institutions by facilitating opportunities to collaborate and develop policies with an emphasis on reducing the possible gaps between theory and clinical practice. This will help improve clarity and consistency in learning and making clinical learning a positive experience for every student in the pathway of developing confident and competent nurses and midwives.

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.nedt.2021.104875>.

#### Funding

This systematic review is not funded by any funding organisation.

#### Acknowledgement/Contribution of authors

The authors (SP, MD, JJ, KR, AD, DS, KM) generated the concept of the topic to conduct a systematic review and metasynthesis. SP and JE-C developed the search strategy. JE-C contributed by searching and retrieving the search results and full text papers for review. The authors (SP, MD, JJ, KR, AD, DS, KM) contributed to independent review of papers for selection by title, abstract, full text and assessment of methodological quality, and data extraction. SP (corresponding author) managed data using NVivo software package and conducted the thematic analysis with contribution from the co-authors (MD, JJ, KR, AD, DS, KM). All the authors (SP, MD, JJ, KR, AD, DS, KM and JE-C) contributed to the writing up of the manuscript.

#### Declaration of competing interest

There are no conflicts of interest.

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