

The benefits and challenges of clinical accompaniment of nursing students: A systematic review

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DECLARATION

I, Lephepane Johanna Susan Manthata, student number 13150251, declare that this dissertation, *The benefits, and challenges of clinical accompaniment of nursing students: A systematic review*, is my own work and all sources used or quotes have been recognised by means of citations and referencing. No plagiarism was conducted as all sources used are acknowledged in the bibliography.

The study was reviewed by the scientific committee of Quality in Nursing and Midwifery (NuMIQ) and approved by the Human Research Ethics Committee (HREC) (00165-21-A1) of the North-West University (NWU).

The study complies with the research ethical standards of the NWU.



LJS Manthata

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First and foremost, I thank Almighty God for life, good health, and strength. Through His grace, I was able to fulfil my dreams and complete the master's programme.

"I can do all things through Christ who strengthens me. "(Philippians 4:13, NKJV)

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ABSTRACT

The clinical accompaniment of nursing students is crucial in providing quality healthcare. The benefits thereof include the building of confidence, professionalism, and self-esteem in both nursing students and educators equally, which therefore contribute to providing high levels of holistic healthcare to patients.

Prior to this study, limited research was available on the benefits of clinical accompaniment for nursing students. As such, identification of the advantages thereof will be helpful in identifying gaps found in the clinical accompaniment of nursing students.

The purpose of this study was to determine the best available evidence regarding the benefits and challenges of clinical accompaniment of nursing students. A qualitative systematic literature review was conducted as a design.

The seven steps of systematic reviews adopted from the manual of the Academy of Nutrition and Dietetics (Deepa et al., 2016:311) were followed. These steps comprise of: (1) the identification of a clear clinical problem, (2) the comprehensive identification of studies and generation of search strategy, (3) the review of study relevance, (4) evaluation of the methodological quality of individual studies included in the review, (5) extraction of data from each study and document, (6) data analysis, and (7) drawing of conclusions. After the first three steps, a sample of 37 studies were obtained and it was eligible for critical appraisal, after which only 21 qualitative studies were finally included, as they met the inclusion criteria, and were retained for data extraction and analysis.

Two categories and 10 themes with four sub-themes emerged from the synthesis. The main categories include the benefits of clinical accompaniment and challenges experienced during clinical accompaniment of nursing students, effective clinical supervision, and support to students, positive or negative contribution of the Clinical Learning Environment (CLE) for nursing students, and challenges experienced by nursing students during their stay in the clinical environment.

The results show that the review of 21 qualitative articles and sources support the findings of the review. Strategies to identify the benefits and challenges of clinical accompaniment to nursing students emerged in the two themes and sub-themes, from the appraised literature.

The review shows that collaboration within departments and clinical learning areas will have positive developmental effects and strengthen the clinical accompaniment of nursing students. Challenges and solutions in nursing education are common within different countries and it is

therefore important to create Nursing Education Institutions that is conducive to learning. Therefore, NEIs need more reforms to increase the capacity of nurse educators who will be responsible for further education of future nurses in our country.

Key terms: benefits, challenges, clinical accompaniment, clinical educator, clinical learning environment, nursing students, systematic review

ABBREVIATIONS

ADA	American Dietetic Association
AIDS	Acquired Immunodeficiency Syndrome
C	Category
CASP	Critical Appraisal Skills Programme
CLE	Clinical Learning Environment
CPA	Clinical Placement Area
CRD	Centre for Reviews and Dissertations
DVD	Digital versatile Disc
EPPI	Evidence for Policy and Practice Information
HIV	Human Immunodeficiency Virus
HREC	Human Research Ethics Committee
NEI	Nursing Education Institution
NuMIQ	Quality in Nursing and Midwifery
NWU	North-West University
NDOH	National Department of Health
PICOS	Population, Intervention, Comparison, Outcome, and Study design
PHC	Primary Health Care
PNEI/s	Public Nursing Education Institution/s
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PROSPERO	International Prospective Register of Systematic Reviews
SA	South Africa
SANC	South African Nursing Council
SANEN	South African Nursing Education Network
ST	Sub-Theme
T	Theme
WIL	Work -integrated learning

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CHAPTER 1 OVERVIEW OF THE STUDY

1.1 Introduction to the Study

This study is a systematic review on the benefits and challenges of clinical accompaniment for nursing students. Its basic assumption is that learning in nursing should not simply be a theory-based process but should also incorporate both theoretical and clinical nursing practice. Nurses are experts who internalise theoretical knowledge, which will be incorporated into practical areas (Meyer & Van Niekerk, 2018:188). Therefore, it is of utmost importance for clinical educators to lay a good foundation for prospective nurses in the clinical learning environment (CLE). Letswalo and Peu (2015:351) found that unaccompanied nursing students during placement were unable to achieve the learning outcomes set by the relevant curriculum. Additionally, the study associated the failure of many students in summative assessments with the poor quality of the accompaniment they were assigned to, or the allocation of too many students to one clinical educator.

The introductory section, Chapter 1, discusses the study background, problem statement, research objectives and questions, paradigmatic assumptions, research methodology and design, the rigour of the study, and ethical considerations. The research methodology and design, comprising different steps followed in building a systematic review of the problem under investigation, will then be presented in Chapter 2. The analysis of the research and the findings will be discussed in detail in Chapter 3, while the conclusions and recommendations of the study will be presented in Chapter 4.

1.2 Background to the Study

The need for changes in the South African health and higher education sectors called for transformation in the structure of South African nursing education qualifications and an amended scope of practice for nurses. Public Nursing Education Institutions (PNEIs), also known as nursing colleges, since 2020 redeployed from the charge of the provincial departments of health to that of higher education institutions to become part of a unified higher education system in South Africa (SA) (South African Nursing Education Network (SANEN), 2014:4). As primary producers of nurses, this migration process must be managed carefully, with stakeholders having a common understanding of the process. As a result, in 2020 the regulatory body implemented the plan to end the legacy qualifications and introduced new nursing programmes to equip nurses in managing the current health problems faced in SA (National Department of Health (NDOH), 2012:13; South African Nursing Council (SANC), 2005:1).

Programmes aim to train nursing students who are fully equipped to manage the current diverse health problems in SA and at the same time achieve the quality standards of higher education criteria. Nursing education still faces the challenges of preparing graduates to face the complexity that is found in today's health environment, where young nurses are expected to demonstrate the ability to take care of patients in a fast-paced clinical environment, with associated clinical competencies and critical thinking skills (Salifu *et al.*, 2019:72).

South Africa faces a quadruple healthcare burden of chronic diseases such as Human Immunodeficiency Virus (HIV) / acquired immunodeficiency syndrome (AIDS); communicable diseases; non-communicable diseases; and violence and injuries with consequent high levels of morbidity and mortality (NDOH, 2012:4). In addition, due to the current shortage of nurses, a dearth of nurses who can work independently from the doctor is eminent and this can only be addressed by training self-directed nurses who can take initiative in rendering independent, safe patient care (NDOH, 2012:13).

Globally, nursing education had a paradigm shift away from a traditional lecturer-centred educational approach toward a student-centred one. A study undertaken in Ethiopia found that nurses had difficulty in transferring what they have studied theoretically into their clinical workplace (Oahn *et al.*, 2021:3). Therefore, the study suggested that it was important for nurse educators to develop realistic learning experiences for students as they transitioned from the classroom setting to a clinical setting. For years, it was argued that such an approach will be beneficial to students if they were provided with a solid clinical foundation by educators, especially at the first-year level, in a small-group context ensuring a safe and competent practitioner (Lestari *et al.*, 2019:3).

Researchers and experts in education both suggested that the number of students to be included in an accompaniment group should be reduced for effective clinical accompaniment (Bvumbwe & Mtshali, 2018:2; Letswalo & Peu, 2015:351; Muthathi *et al.*, 2017:3). Rikhotso *et al.* (2014:1) argued further that the curriculum outcomes regarding clinical accompaniment of nursing students were causing a major challenge in shifting roles between nurse educators and professional nurses in the CLE. However, the government has been pushing for a larger student intake, not considering the impact of the shortage of nurse educators who could accompany such large numbers of students.

For years small-group accompaniment was highlighted due to positive training outcomes. McCrorie (2013:123) describes a small-group accompaniment, learner-centred approach in a collective of eight to sixteen students under the supervision of one facilitator. Lestari *et al.* (2019:3), confirm and accentuate small-group accompaniment as a useful training strategy where

the aim is to help students take up an accountability role. Bruce *et al.* (2017:362) highlight that another contribution of small-group accompaniment is that the level of learning increased, due to the existence of a better student-educator relationship, resulting in better motivation to study. Small-group accompaniment has provided students with an opportunity for free interactive participation with their peers and their facilitator, compared to the commonly used large-group accompaniment method where some students were hesitant to interact and ask questions in front of their classmates because they feared embarrassment (Bruce *et al.*, 2017:360).

The Nursing Act, 2005 (Act 33 of 2005) has accentuated the above-mentioned small-group accompaniment and described student clinical accompaniment as a formal structured process of learning at a Nursing Education Institution (NEI), aimed at facilitating, assisting, and supporting students. A nurse educator acts as a facilitator during work-integrated learning (WIL) in different clinical areas in a clinical facility, to support the student to achieve the set programme outcomes (SANC, 2005:13). During the first year of study students average around 600 WIL hours of which 70% must be supervised, guided, and supported during adaptation to clinical learning areas and clinical procedures. It is important that students are made aware and guided to understand patient needs to develop appropriate responses and ethical values for care (Potgieter, 2012:5; SANC, 2005) and to move from dependence to self-direction within the clinical environment as ideal for active real-life student teaching (Bruce *et al.*, 2017:365).

In response to large numbers of training terminations amongst first year student nurses, (Motsaanaka *et al.* 2020:3) found that most of the students who took part in the study felt overwhelmed in the clinical learning area, due to a lack of proper support (no role models and a theory-practice gap) from clinical educators. This student dropout resulted from high student intake of over 100 students annually in a PNEI, a shortage of nurse educators, with an insufficient student-educator ratio of 1:40, which as a result lead to a lack of proper clinical accompaniment of students over the past decade (Muthathi *et al.*, 2017:3; NDOH, 2018:21-22). Most of these terminations were due to failure and repetition of study years in either clinical practice or core subjects like General Nursing Science (Gauteng College of Nursing, 2019). Statistical evidence of the student pass rate over a seven-year period from a PNEI in Gauteng Province is indicated in Table 1-1

Table 1-1: Level one: Main examination results from 2013 to 2019

	YEARS	2013	2014	2015	2016	2017	2018	2019
1	Entries	256	220	271	386	367	260	187
2	Passed	217	156	184	298	249	251	153
3	Failed	39	64	87	88	118	9	29
4	Supplementary exam	40	70	85	39	115	9	33
5	Repeat year of study	44	60	65	60	91	2	31
6	Terminations	4	7	22	28	27	2	9
7	Course extension	3	0	4	1	2	0	3
8	Total	256	220	271	386	367	260	187
9	Percentage	2%	3%	8.1%	7.2%	7.3%	0.7%	1.6%

The Nursing Act (Act 33 of 2005) and the regulation regarding the training of the diploma in nursing (R171) prescribe a student-educator ratio of 1:10 as efficient, and direct supervised accompaniment compulsory for a minimum of 30 minutes per student over 30 days (SANC, 2005:4).

To address the issue of clinical facilitation for nursing students, Muthathi *et al.* (2017:1) point out the challenges faced by educators associated with an unbalanced student/educator ratio in the NEIs, as mentioned above. The role of professional nurses in clinical learning practice is a moral duty to mentor, supervise, and provide a positive role model to students in their unit of placement (SANC, 2013:5). Yet many registered nurses struggle to meet this obligation, as pointed out by Rikhotso *et al.* (2014:2), due to registered nurses already being overloaded with duties regarding patient care, which takes priority over student supervision and accompaniment. Muthathi *et al.* (2017:3) concluded by recommending improvement concerning the number of students per educator allocation in clinical settings for accompaniment, especially at the first-year level, since this requires more guidance and support from their clinical facilitator.

1.3 Problem Statement

Regarding large numbers of training terminations amongst first-year nursing students, Motsaanaka *et al.* (2020:3) found that most of the students who took part in the study felt overwhelmed in the clinical learning area. The main reason for this was found to be lack of proper support that led to learning challenges. Further identified challenges are insufficient role models and the theory-practice integration gap in the clinical area, due to an insufficient student-educator allocation ratio of 40:1 which leads to a lack of proper clinical accompaniment of nursing students (Muthathi *et al.*, 2017:2). Despite the existence of well-planned clinical guidance, Muthathi *et al.*

(2017:4) reported that one-to-one clinical accompaniment contact between students and educators rarely takes place in many NEIs as it should and as is prescribed by SANC (SANC, 2005).

This problem has negatively impacted the efforts of nursing students in achieving their learning outcomes in the clinical environment (Motsaanaka *et al.*, 2020:5). Despite the magnitude of the consequences, its impact in the long term on the profession has not been sufficiently documented. The current study argues that the adoption of a small-group accompaniment strategy could remedy this situation. Therefore, there was a need to identify and appraise the best available evidence on the benefits and challenges of clinical accompaniment of nursing students through a systematic review.

1.4 Research Question

To achieve the above objective, the study intended to answer the following research question: What is the best available evidence regarding the benefits and challenges of clinical accompaniment for nursing students?

1.4.1 Research aim

The research aim is to determine the best available evidence regarding the benefits and challenges of clinical accompaniment for nursing students.

1.4.2 Research objective

The research objective is to identify and appraise the best available evidence regarding the benefits and challenges of clinical accompaniment for nursing students.

1.5 Paradigmatic Assumptions

The basis for the research is a philosophical belief concerning the "world view" or paradigm (Polit & Beck, 2017:13). The concept paradigm is defined as a way of viewing phenomena or a group of phenomena that attracts a group of adherents and while conducting research, the researcher develops and reveals certain assumptions (Botma *et al.*, 2022:187). Because a researcher's paradigmatic view plays an important role in the design and implementation of the research study, it needs to be clearly stated. The researcher's meta-theoretical and theoretical assumptions, views on models and theories, conceptual definitions, and methodological assumptions of the research study are stated below.

1.5.1 Meta-theoretical assumptions

Meta-theoretical assumptions are statements of beliefs (Bruce *et al.*, 2017:41). According to Bruce *et al.* (2017:39), the meta-theoretical assumptions are based on the researcher's view of the world and society and are not intended to be tested.

In this case, the researcher's assumptions are based on the researcher's fundamental outlook on life, based on a Christian world view, which implies that to teach is part of an individual's duty as a Christian. Integral to this is beliefs to lead by example, empowerment of others by means of mentoring, being a positive role model, and to participate in formal teaching. These are the principles of giving, loving, teaching, learning, and sharing, as stated in the Bible (Benemann, 2016). Jesus acted as a mentor for His disciples, and He showed them through His acts how to behave and interact with other people. The researcher purposes to do likewise. Within this framework the researcher will define her meta-theoretical statements of man, health, environment, and nursing.

1.5.1.1 View of man

The researcher sees each person as a unique human being with distinctive needs, created by God to interact with his/her environment and with other people. In this study the nurse educator is in interaction with the nursing student, who can acquire new knowledge through both accompaniment and practical experience. These experiences relate to health and illness from birth until old age or death and influence cognisance, perception, and behaviour.

In this research study the person (nurse educator) has an obligation to obtain knowledge and new skills to facilitate learning by clinical accompaniment of the nursing student. Furthermore, to ensure that nursing students reach the set learning outcomes to become a competent nurse practitioner through his/her formal training course.

1.5.1.2 View of health

The researcher views health as a state of complete physical, mental, and social well-being. In this study, health is seen where the nurse educator creates a positive teaching-learning climate where integration of theory and practice during clinical accompaniment can take place. He/she is to ensure a positive teaching-learning climate and apply various teaching skills to address special learning needs of the student to assure interactive learning.

1.5.1.3 View of society/environment

The researcher views the society/learning environment as that educators and nursing students come from diverse cultural, religious, and educational backgrounds. The nurse educator shares this environment with the nursing student. They come together in a shared society/environment where interactive learning takes place (they teach and learn from each other) by collaboration and participative interaction.

In this research study the focus is on theory-practice integration through WIL that takes place during clinical accompaniment as structured practical demonstrations, on-the-spot teaching, and assessment of clinical skills. New knowledge is acquired during demonstrations and clinical guidance for the nursing students to master their set learning outcomes.

1.5.1.4 View of nursing

The researcher views nursing as a caring and ethical profession that focuses on helping those in need of healthcare. Caring refers to the ability of a person to have empathy with another being, and therefore taking care of the individual in need with compassion and understanding. Nursing is concerned with improving the health of individuals, families, and communities. In this research study the focus is to identify and appraise the best available evidence regarding the benefits and challenges of clinical accompaniment for nursing students to master their set learning outcomes.

1.5 2 Theoretical assumptions

Theories suggest directions on how to view facts and events, until disproved (Bruce *et al.*, 2017:43). Billings and Halstead (2012:192) describe learning theories as a focus on how people learn, and it is descriptive in that it focuses on and describes the processes used to bring about change in either the way in which students perform or the way in which they understand or organise elements in their environment.

1.5.2.1 Models and theories

The following learning theory' principles are very relevant to nursing education since nursing is a practice discipline allowing adult students entry into the nursing profession. The learning theory are specifically applicable during clinical accompaniment.

Behavioural learning theory

Behaviourism focuses on positive reinforcement as a reward and motivation for students to learn and change their behaviour (Billings & Halstead, 2012:194), learning takes place through continuous positive reinforcement and as a result changes the respondent's behaviour.

During clinical accompaniment the nurse educator appraises correct actions and gives immediate feedback after the student has practised and mastered a procedure. Positive reinforcement in the form of support, encouragement, and constructive feedback by educators during clinical skills development of students is essential to affect a change in behaviour that will lead to new knowledge and clinical competence. During clinical accompaniment, the educators act as facilitators of active learning, promoting the understanding and application of cognitive and psychomotor skills development (Muthathi *et al.*, 2017:4).

1.5.2.2 Central theoretical statement

We form perceptions about the information our senses receive through life events. These experiences can lead to the formation of new knowledge and the application thereof in our daily lives. The researcher believes that through practise competence can be obtained if, within a certain timeframe, the student is exposed to the specific type of experiences needed in a speciality. Therefore, creating a safe learning environment that simulates the real-life situation during clinical accompaniment, nursing students can be exposed to and interact with specific learning experiences within their scope of practice. This can lead to clinical skill acquisition and competence development. This systematic review determined the best available evidence regarding the benefits and challenges of clinical accompaniment for nursing students to improve their clinical skills.

1.5.2.3 Conceptual definitions

The following seven concepts: accompaniment, clinical educator, CLE, clinical learning opportunities, nursing student, NEI, and WIL were central to this research study. These concepts are defined below.

Accompaniment

Accompaniment is a formal, deliberate, planned process of intervention whereby the nursing student interacts with the facilitator to achieve specific outcomes (SANC, 2005). In the context of this study, accompaniment means direct assistance to and support of the nursing students by a clinical educator during WIL in a clinical facility to master set clinical outcomes.

Clinical educator

A clinical educator is a professional nurse with an additional qualification in nursing education who assists students to give quality nursing care through guidance and training in the clinical setting. In this research study, the educator accompanies during WIL the nursing students from a NEI (SANC, 2005).

Clinical learning environment

The CLE is the healthcare setting where students can learn and develop clinical nursing skills in real-life situations. In this study, the concept applies to nursing learning and supervisory activities during WIL, conducted in healthcare environments such as hospitals and clinics to master set clinical skill outcomes (SANC, 2005).

Clinical learning opportunities

Clinical learning opportunities refer to the range of learning experiences available in a healthcare setting or other experiential learning sites for students to gain required nursing skills (SANC, 2005). In this research context, learning opportunities are gained through the accompaniment of nursing students by a nurse educator in the CLE.

Nursing student

A nursing student is a person enrolled in and undergoing education or training in a nursing programme at a college or university, who is registered with the SANC as a nursing student. In this study, a nursing student refers to a student enrolled at a NEI (SANC, 2005).

Nursing education institution

Nursing education institution (NEI) refers to an institution that offers nursing education programmes. These colleges or university institutions are accredited by the SANC to provide a qualification in nursing (SANC, 2005). In this study, a PNEI is a nursing education institution which are funded by the government.

Work integrated learning.

WIL is an approach to a career-focused education that includes theoretical forms of learning, problem-based learning, and workplace learning (Chuan, 2012:394). Work integrated learning combines the knowledge that the student has gained in the classroom, whether theory or skill (affective and psychomotor), with finding solutions of real-world problems for real-world "patients". Integrated learning programmes do not generally lead to a credential like a major or a

minor, but they provide experiences parallel to challenges nursing students face during clinical placements.

In this study context, WIL is grounded in the assumption that the experiences of students in the CLE reflect the quality of their clinical learning and its correlation with real-life experience when they were placed in a primary healthcare clinic or provincial hospital setting (Sibiya & Sibiya, 2014:1943).

1.5.3 Methodological dimension

Methodology refers to the description of the specific techniques employed, and specific measuring instruments utilised, during the specific activities conducted throughout the study (Botma *et al.*, 2022:182). It also further refers to seeking the best methods by which to gain knowledge. The current research was done within a scientific method of inquiry to identify and appraise the best available evidence regarding the benefits and challenges of clinical accompaniment of nursing students. The study was done correctly and orderly by following the steps of a systematic review. A systematic review thoroughly searches, identifies, and determines the existing evidence to answer the research question (Abiodun *et al.*, 2019:2). The Population, Intervention, Comparison, Outcome, and Study design (PICOS) steps of a systematic review were chosen to generate the most valid results included in the study.

1.6 Research Methodology and Design

While the research methodology and design will be discussed in detail in Chapter 2, a short description follows in this section.

1.6.1 Research Methodology

The research methodology refers to the path taken by the researcher when investigating of a problem and the research objectives, cumulating in the presentation of the results from the collected data (Polit & Beck, 2017:233).

1.6.2 The Research design

The research design adopted by this study is a systematic review. A systematic review is a specific, clearly formulated question that uses systemic and reproducible methods to identify, select, and critically appraise all relevant research, and to collect and analyse data from the studies that are included in the analysis (Burns *et al.*, 2017:23). This design was intended to provide an appropriate framework for the benefits and challenges of the clinical accompaniment for nursing students.

According to Ten Ham-Baloyi and Jordan (2016:125), the systematic review aims to critically extract systematic review aims collection and analysis using either a qualitative or quantitative approach. A systematic review includes different steps, as discussed below. Some of these steps are borrowed and adapted from the model suggested by Tawfik *et al.* (2019:2). A qualitative systematic review has been used because of the popularity gained by this approach in answering research questions in healthcare studies (Methley *et al.*, 2014:2).

The research design on which this study is based includes the following seven steps: (1) the identification of a clear clinical problem, (2) the comprehensive identification of studies and generation of search strategy, (3) the review of study relevance, (4) evaluation of the methodological quality of individual studies included in the review, (5) extraction of data from each study and document, (6) data analysis, and (7) drawing of conclusions.

1.7 Research Rigour

Rigour is to strive for excellence in the study by giving attention to details, accuracy, and discipline (Burns *et al.*, 2017:24). It requires a focused systematic approach to every step of the research, including the research design, main question, selection of relevant studies, critical appraisal, data collection, data analysis, findings, and documentation (Brink *et al.*, 2023:82).

The steps from the systematic review process were used. Relevant databases and hand searches were used to search for and find relevant and recent studies on the benefits and challenges of accompaniment strategy in the clinical context. A subject librarian assisted during this step to further promote the rigour of the review. Credibility refers to the confidence or belief in the presented results (Grove *et al.*, 2014:54). To enhance credibility of data collected for this study primary research reports were included.

Consistency determines the trustworthiness of the study's findings. Consistency requires that the results would be similar if the research should be repeated in a comparable setting (Grove *et al.*, 2014:54). The researcher used a co-reviewer, who independently examined all selected data and consensus was reached on the level of evidence of data included in the current systematic review.

All identified studies and documents were sifted for relevance according to inclusion and exclusion criteria for relevance (specificity). A Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow chart (Figure 3-1) was used to record the search and selection and to show transparency. Eldawlatly *et al.* (2018:184) associate the quality of any study in the clinical context with the formulation of a well-focused research question including well-articulated elements of PICOS.

Established tools were used for critical appraisal to ensure that only rigorous studies and high-quality documents were graded and those that scored 8/10 and above were included. Two researchers (the researcher as well as a co-reviewer) were involved in the screening and critical appraisal steps to limit possible bias. The rigour and integrity of the study were also assured using PICOS as a research framework.

1.8 Ethical Considerations

This systematic review study does not use humans as participants, but only studies and other documents. Therefore, there were no informed consent required, but the researcher made sure that fundamental ethical principles were met. To ensure that this study is done acceptably and ethically, the study was reviewed by the Quality in Nursing and Midwifery (NuMIQ) scientific committee and approved by Human Research Ethics Committee (HREC) (NWU-00165-21-A1). Even though there was no exploitation of human beings in this study, the researcher adhered to the following guidelines by Brink *et al.* (2023:32-45) and Burns *et al.* (2013:159-191):

- Ensured that ethical sufficiency was maintained in the original study. The ethical principles followed in the primary studies/documents were checked during critical appraisal.
- Made certain honesty and integrity were maintained by not fabricating data, falsification, or committing plagiarism, by referencing every statement and having a reference list of all sources used (Brink *et al.*, 2023:33). Sources have been acknowledged, and credit given to anyone who supported, guided, and helped through the investigation.
- Ensured the use of scientific data.
- Made certain personal feelings did not affect research (unbiased report findings). The researcher avoided the misconduct of exaggeration by using known search engines which can be traced and by keeping records of both excluded and included articles.
- Data was analysed to the maximum and without manipulation of findings analysed to support the study (Kalichman, 2016:457).

Finally, the systematic review was registered with an International Prospective Register of Systematic Reviews (PROSPERO), so that a registration number could be issued to ensure that the study is not a duplicate.

1.8.1 Risks and precautions

Rigorous application of PICOS steps and a strict evaluation of the met quality of individual published studies included in the review will certainly help to reduce the inclusion of risk of biases and outline the benefits and challenges of clinical accompaniment of nursing students at an early stage. However, to reduce the risk of any bias inclusion, the study used three criteria, namely (1) searcher skills, (2) matching between model and review question, and (3) quality of searches (Eriksen & Frandsen, 2018:423). The benefits are presented in Table 1-2 as indicated below.

Table 1-2 Direct and indirect benefits of the study

Direct benefits for participants	Indirect benefits for society at large or the researcher/institution
Not applicable	Society at large, researchers, and learning institutions will indirectly benefit from the research results in the following ways: <ul style="list-style-type: none"> • Researchers can use the study results for further investigation. • Institutions of learning, particularly PNEIs, will also benefit and challenges from the research results in better understanding the benefits of clinical accompaniment for nursing students.

1.9 Summary

The aim of this study was to conduct a systematic review of the literature to determine the best available evidence regarding the benefits and challenges of clinical accompaniment of nursing students in the clinical setting. This section has presented an overview of the study and discussed the main steps involved in the investigation, namely the research background, the problem statement, the research aims, objectives, and questions, the paradigmatic perspective of this study, the researched methodology and design used, research rigour, and ethical considerations of this study. It has been established in this chapter that the systematic review will add value to the scientific body of knowledge in health education sciences by providing a better understanding of how clinical accompaniment will benefit both the student and the NEI's. The second chapter will discuss the research methodology in detail.

CHAPTER 2 RESEARCH DESIGN AND METHODS

2.1 Research Method

After clearly identifying the problem to be investigated and formulating the research objective and the research question, the researcher must discuss the methodology followed throughout the investigation and decide on the research design to best answer the research question (Abutabenjeh & Jaradat, 2018:1). Research methodology refers to the path taken by the researcher to investigate the formulation of the problem and the presentation of the results from the collected data (Polit & Beck, 2017:233). The research design is intended to provide an appropriate framework pertaining to the study to be conducted.

2.2 The Systematic Review as Research Design

The method adopted by this research is a systematic review. A systematic review is a specific, clearly formulated question that uses systemic and reproducible methods to identify, select and critically appraise all relevant research, and to collect analytics data from the studies that are included in the review (Burns *et al.*, 2017:23).

According to Ten Ham-Baloyi and Jordan (2016:125), the aim of a systematic review is to critically extract and assess data, which equates to data collection in a systematic review aimed at a qualitative or quantitative approach. A systematic review includes different steps, as discussed below. Some of these steps are borrowed and adapted from the model suggested by Tawfik *et al.* (2019:2). A qualitative systematic review was used because of the popularity gained by this approach in answering research questions in healthcare studies (Methley *et al.*, 2014:2).

The research design on which this study is based includes the following seven steps: (1) the identification of a clear clinical problem, (2) the comprehensive identification of studies and generation of search strategy, (3) the review of study relevance, (4) evaluation of the methodological quality of individual studies included in the review, (5) extraction of data from each study and document, (6) data analysis, and (7) drawing of conclusions.

2.2.1 Step 1 – Identification of a clear clinical problem

It was important to formulate a focused research question guiding the search for studies and other documents derived from employing the PICOS steps to assist in the study design. In context of this study, PICOS refers to:

P Population identification

I Intervention

C Comparison

O Desired outcome of the study

S The study design or setting

PICOS is a research framework commonly used by scholars to formulate research questions and to facilitate the literature review by connecting different parts of the research question towards a valid research design (Eldawlatly *et al.*, 2018:184). According to Eriksen and Frandsen (2018:1) the PICOS model (see Table 3-2) was not only used as a tool for asking and answering clinical and research questions, but also as a tool for developing search strategies. The review question is: What is the best available qualitative evidence regarding the benefits and challenges of clinical accompaniment of nursing students? The application of the steps of the PICOS model is discussed below.

Population identification

In research, the notion of a population refers to the entire collection of individuals or elements to which the researcher intends to generalise the research findings. Under PICOS, the population must be described using specific criteria using a condition of interest or geographical area (Eldawlatly *et al.*, 2018:187).

In this nursing research, both conditions of interest and geographical area are used as criteria to identify the population of interest. The population consists of all leading documents and studies containing information regarding the benefits and challenges of clinical accompaniment of nursing students from NEIs.

Intervention

Intervention refers to the controlling mechanism that can be manipulated and used to compare two groups of elements being investigated with the view of establishing the difference between the components of the population under investigation (Eldawlatly *et al.*, 2018:187). In this study intervention is the clinical accompaniment contact of nursing students with a clinical educator in any healthcare setting.

Comparison

This stage aims to obtain the results regarding the intervention used as discussed in the previous section. The groups of interest in this investigation are nursing students who were exposed to the strategy of clinical accompaniment and nursing students with limited or no access to clinical accompaniment.

Outcome

The outcome is assessed in terms of the benefits and challenges of clinical accompaniment of nursing students, who are expected to be competent, confident, and caring nurse practitioners.

Study design

The study focuses on analysing the clinical accompaniment of nursing students in NEIs. The study is guided by the assumption that NEIs are facing challenges in ensuring a proper accompaniment of their students due to the large number of students allocated to each clinical educator (Muthathi *et al.*, 2017:4). Achieving the best outcomes of nursing training in NEIs depends on the ability to integrate theories learned in classrooms to practices happening in nursing and healthcare facilities (Meyer & Van Niekerk, 2018:84).

2.2.2 Step 2 – Comprehensive identification of studies and generation of the search strategy

A selection of studies that previously investigated the role and benefits of clinical accompaniment of nursing students was conducted. This step is concerned with the development of a protocol, which will help to limit bias through using inclusion and exclusion criteria (Botma *et al.*, 2022:245).

The protocol that was followed in the effort to limit the inclusion of biased studies is as follows: (1) The researcher used databases, manual searches of research evidence, and grey literature (Deepa *et al.*, 2016:22). (2) Inclusion and exclusion criteria (see section 2.2.3) to select evidence related to the review question were gathered, classified, and applied. (3) Abstracts and citations were reviewed to identify studies that met the criteria answering the review question.

This systematic review includes both documents and studies published in English and those for which an English abstract is available. The review includes studies done in any country. Most research was done on the benefits and challenges of clinical accompaniment in NEIs, and experiences and perceptions of a CLE.

To be as comprehensive as possible, the period for documents used in this study is between 2010 and 2021. The time selection was informed by significant changes that have been

introduced in the teaching of nursing in SA over the past years, which have significantly affected nursing teaching and learning in the country.

To be able to begin the search and retrieve available literature, keywords were used. The main keywords are derived from step one utilising PICOS. To identify all relevant documents and studies, the keywords were combined for each database. The following keywords were used: *“benefits”, “challenges”, “clinical accompaniment”, “clinical learning environment”, “clinical educator”, “effectiveness”, and “nursing student”*.

Multiple databases and search engines were used to retrieve relevant documents, namely EBSCOhost, Academic Search Premier, Science Direct, PubMed: Nursing Academic Edition, MEDLINE, and Google Scholar. The above databases were selected based on the accessibility and availability of relevant studies further to the advice of the study leader and librarian. Additionally, a hand search of reference lists of key studies was done to identify documents that may have been missed in the electronic search. The tables of content of relevant journals that are not available electronically were also reviewed. If newly identified documents are not easily obtainable, the authors were contacted via e-mail.

2.2.3 Step 3 – Review of study relevance

This systematic review includes both documents and studies published in English and those for which an English abstract is available. The review includes studies done in any country. Most research was done on the benefits and challenges of clinical accompaniment in NEIs.

The researcher has developed inclusion and exclusion criteria to select only relevant studies and documents that will help to answer the review question (Abiodun *et al.*, 2019:6). Studies included specific interventions on student accompaniment, CLE, and clinical accompaniment.

The inclusion criteria

- Articles that are written scholarly and scientifically.
- Studies and documents published in peer-reviewed journals, from 2010 to 2021.
- Any study with an English abstract.
- Studies that state the trustworthiness of the data collection method.
- Studies that used a qualitative research design.

- Government publications, grey literature, and latest guidelines regarding clinical accompaniment of nursing students.

The exclusion criteria

- Studies that did not address the research question.
- Studies and other documents were excluded if not relevant during three steps: based on title only, based on the abstract, and if still not possible to decide, based on the full text.
- Studies that used a quantitative research design.

After the search for the identification of possible studies was completed with the assistance of the above inclusion and exclusion criteria, the title and information in the abstract were carefully analysed to see if a decision to include or exclude could be made; if not, the full text was considered.

The search process and selection of relevant studies were done at four different levels to increase the specificity of the search. In the first place the scoping search was done by searching broadly through literature and exploring different databases, to see if the literature contained any valuable studies applicable to the research question. At the first level of identification, titles and abstracts of studies selected during the initial search were screened for duplication and their relevance to the review question, and all screened studies were recorded for audit purposes. At the second level, the abstracts of the remaining studies which could be included were reassessed using the inclusion and exclusion criteria – this enabled the researcher to select all studies relevant to the review question. At the third level, full-text studies were thoroughly assessed according to the inclusion and exclusion criteria, to gain the final list of studies found to be relevant to the research question. At the fourth level of identification, the final list of studies was tested for rigour of the systematic review (American Dietetic Association (ADA), 2008; Critical Appraisal Skills Programme (CASP), 2018).

A PRISMA flow chart, as contained in Figure 2-1 below, was used to record the search process (Moher *et al.*, 2015:7). This flow chart indicates how studies were included or excluded at each step of the search process.

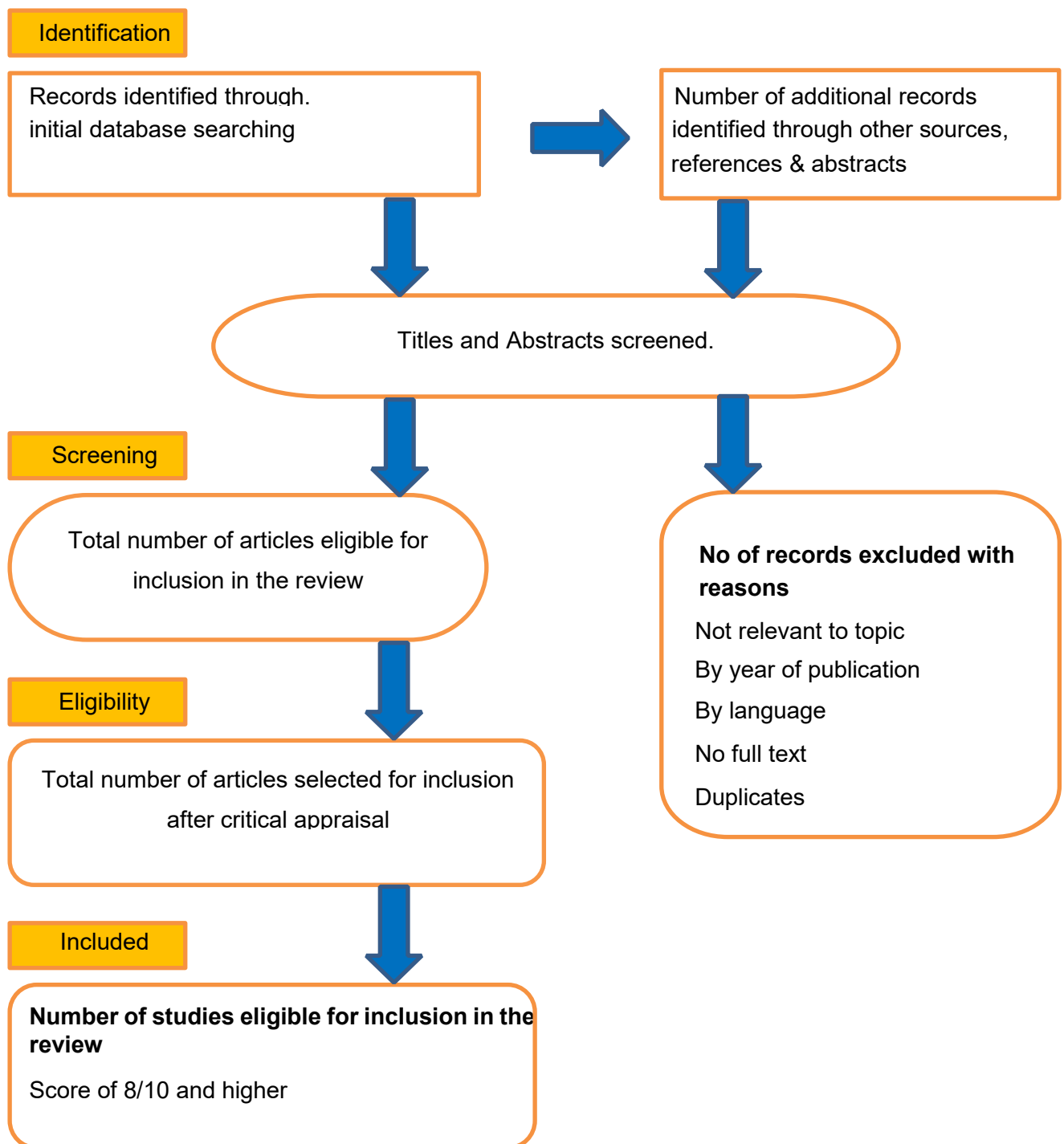


Figure 2-1: Identified through other sources.

2.2.4 Step 4 – Evaluation of the methodological quality of individual studies included in the review.

Although systematic review and meta-analyses are considered powerful tools of research with the ability to overcome difficulties in analysing large-scale data, there is the possibility of intrusion of biased or improperly assessed studies (Ahn & Kang, 2018:10). To minimise the possibility of

biases in the systematic review, it was of utmost importance that focus was put on the evaluation method to ensure the quality of individual studies included in the review. During this step, the remaining studies, and documents (n=37) were critically appraised. One critical appraisal tool, namely CASP, (research appraisal tool) (2018:2) was used (see Annexure B). The tool was used by the researcher and an experienced co-reviewer to eliminate bias. The studies were scored out of 10 with the critical appraisal tool. Only studies with a score of 8/10 or higher were included.

2.2.5 Step 5 – Extracting data from each study and document.

Critical studies of high methodological quality were categorised according to the method design and included in a table with the relevant information from each study as title, author, date categorised, design method, findings, and conclusion of research reports (Deepa et al., 2016:62). Each research article was carefully read to determine the quality of the methodology used as well as its validity (Eldawlatly *et al.*, 2018:186), and will be discussed in detail in Chapter 3.

2.2.6 Step 6 – Analysis of data

Data analysis represents another important step in conducting research, which is concerned with interpreting the results obtained from the selected sources (Sutton & Austin, 2015:226). During this step, the information collected from the included documents was included and presented in a synthesised fashion (Van der Berg *et al.*, 2013:6).

2.2.7 Step 7 – Drawing of conclusions.

Conclusions were drawn from the analysis of the information collected from synthesised studies and from the discussions conducted based on the research results. recommendations were formulated based on the research results and conclusions. Botma *et al.* (2022:75) state that the conclusion should be distinctly connected to the introduction and the purpose of the study. this will be discussed in detail in chapter 3.

2.3 Summary

Chapter 2 provides an overview of the methodology of the systematic review, which was used in this study; a clarification of systematic reviews was provided; and the seven structured steps systematically followed were explained. The next chapter will continue to discuss and explain how the systematic review was executed.

CHAPTER 3 ANALYSIS AND PRESENTATION OF FINDINGS

3.1 Introduction

In this chapter, a discussion of the realisation of the study conducted according to the first six steps of this systematic review is provided. These steps are as follows: (1) the identification of a clear clinical problem (research question), (2) the comprehensive identification of studies and generation of search strategy, (3) the review of study relevance, (4) evaluation of the methodological quality of individual studies in the review, (5) extraction of data from each study and document, and (6) data analysis. Step seven, drawing conclusions, will be discussed in Chapter 4 of this study.

As led by the research question and the purpose of the study (see Table 3-1) the implementation of the first six steps of the systematic review is discussed below.

Table 3-1 Review question and purpose of the study

Review question	Purpose of the study
What is the best available qualitative evidence regarding clinical accompaniment of nursing students?	<ul style="list-style-type: none"> • To critically review available research tools and literature on strategies to search for the benefits and challenges of clinical accompaniment of student nursing students, and • To synthesise research-based literature on how clinical accompaniment will benefit nursing students.

PICOS is an acronym used in a systematic review to define the parameters to be followed in a search strategy and it is also used as a tool for asking and answering a research question (Erikson & Frandsen, 2018:421).

- P** The identification and description of the study population (population identification)
- I** the identification of the area of intervention
- C** Areas of comparison
- O** Desired outcome of the study
- S** The study design or setting.

Table 3-2: The dimensions of PICOS

Aspect	Decision	Explanation
Population	NEIs Nursing students	The researcher wants to identify the best available evidence of the benefits and challenges of clinical accompaniment of nursing students.
Intervention	Clinical accompaniment	This is the main aim of the research study.
Comparisons	The groups of interest in the investigation are nursing students that were exposed to the strategy of clinical accompaniment, and students who did not receive proper clinical accompaniment.	The researcher wants to investigate how the efficiency of small-group clinical accompaniment differs from that of larger-group clinical accompaniment.
Outcomes	The benefits and challenges of clinical accompaniment of nursing students to the quality of their training.	The outcome benefits nursing education in producing an independent practitioner.
Study design	Only qualitative studies were included in the research, in the setting of NEIs.	The qualitative studies chosen, address the main aim of exploring all available evidence regarding the benefits and challenges of clinical accompaniment of nursing students. Studies in English language. Studies from any country were included. The qualitative design is suitable for this study because it is a method of inquiry focusing on the in-depth aspects of the meaning and opinions of the selected participants and aims at understanding the phenomena that will address the benefits of exploring all available evidence regarding the benefits and challenges of clinical accompaniment of nursing students (Botma <i>et al.</i> , 2022:81).

3.1.1 Population

In research, the population refers to the entire collection of individuals or elements to which the researcher intends to generalise the research findings. Under PICOS, the population needs to be described by means using criteria such as the condition of interest or geographical area (refer to Table 3-8 first column) (Eldawlatly *et al.*, 2018:187).

In the current research, both conditions of interest and geographical area were used as criteria to identify the population of interest. The population consisted of all leading documents and studies containing information regarding the benefits and challenges of clinical accompaniment of nursing students from NEIs globally.

3.1.2 Intervention

Although intervention is commonly employed in experimental research, its use in the current study is of clinical accompaniment of student nursing students with a clinical educator in any clinical setting.

3.1.3 Comparison

The aim of this stage is to obtain the results regarding the intervention used as discussed in the previous section. The groups of interest in the investigation are nursing students who were exposed to the strategy of clinical accompaniment and nursing students who had no access to clinical accompaniment.

Findings from examination results of NEIs in Gauteng Province (see Table 1-1) shows an increase in failure rate in students in the years when there were many students, owing to the large student intake (Motsilenyane, 2015:3; Muthathi *et al.*, 2017:2).

3.1.4 Outcome

The outcome was assessed in terms of the benefits of clinical accompaniment of nursing students. According to Jackson *et al.* (2014:11), the benefits of student accompaniment in the CLE and positive outcomes are accentuated by articles stated in Table 3-8. A further outcome of nursing education is to train independent practitioners in the clinical settings.

3.1.5 Study design

The study focuses on the benefits of the clinical accompaniment of nursing students. The study was guided by the assumption that NEIs are facing challenges in ensuring proper accompaniment of students due to the large numbers of students allocated to each clinical educator (Motsaanaka *et al.*, 2020:3; Motsilenyane, 2015:3; Muthathi *et al.*, 2017:4).

3.2 Identification of studies utilising the search strategy

Thirty-seven relevant studies were identified by the researcher and a co-reviewer, taking into consideration the specific inclusion as well as exclusion criteria as formulated during the planning

phase. The choice of keywords was appropriate to find relevant literature (see section 2.2). The following keywords were used: *“benefits”, “challenges”, “clinical accompaniment”, “clinical learning environment”, “clinical educator”, “effectiveness”, and “nursing student”*.

Table 3-3: Sources of literature used in the search strategy.

Database	Domain and type of literature included
PubMed Central	International journal articles on health sciences
EBSCOhost: Academic search Google Scholar, Medline	International journal articles, theses, and dissertations on health sciences
Africa-Wide Information Applied Science and Technology Sources E-Journals, Health Sources - Nursing/Academic Edition Open Dissertations	International journal articles on health sciences
Manual search	A manual search of relevant articles that could not be found electronically

After the collection of all articles, a manual search was used to sift the literature. The first step was to exclude duplicates. Secondly, all titles and manual abstracts were carefully read while the inclusion as well as the exclusion criteria were taken into consideration.

Table 3-4 Summary of results of the search and excluded documents due to duplication.

Databases	Initial search	Duplicates
PubMed Central	566	122
Google Scholar	430	61
Medline/Science Direct	156	43
References & abstracts	65	29
Total	1217	255

The documents were retrieved using the above databases and selected keywords as mentioned earlier. Thus, after the initial search, all titles as well as abstracts, were screened for possible inclusion and exclusion.

3.3 Review of study relevance

This step was explained in section 2.2. The researcher developed inclusion and exclusion criteria to select only relevant studies and all titles, as well as abstracts, to answer the review question (Abiodun *et al.*, 2019:7). Studies that include specific interventions on student accompaniment in CLE, were chosen. Studies that met the inclusion criteria after reading the abstracts were selected; thereafter, the full papers were carefully screened for critical appraisal and to determine whether they answer interventions and the review question.

A Prisma flow chart, as contained in Figure 3-1 below, was used to record the search process (Moher *et al.*, 2015:7). This flow chart indicates how studies were included or excluded at each step of the search. Figure 3-1: Prisma flow chart of realisation of the search strategy at the level of identification, screening, eligibility, and included studies performing critical appraisal and evaluating the methodological quality of selected studies.

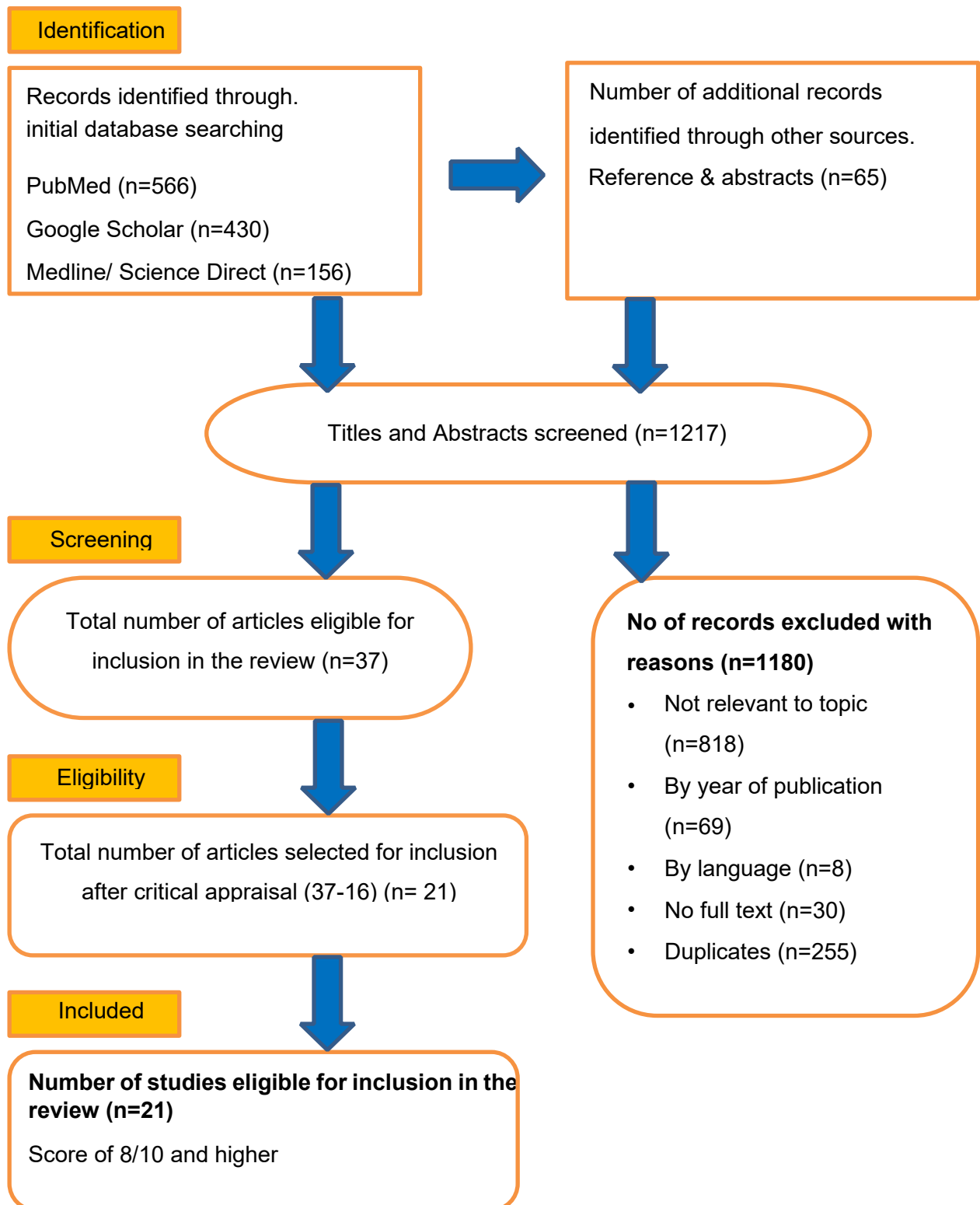


Figure 3-1: Prisma flow chart of realisation of the search strategy at the levels of identification, screening, eligibility, and included studies.

3.4 Performing critical appraisal and evaluating the methodological quality of selected studies

In order to minimize the possibilities of biases in the current systematic review, it was of utmost importance that a focus was put on the evaluation of the methodological quality of individual studies included in the review. Critical appraisal is the procedure whereby the researcher cautiously and consistently analyses the trustworthiness of collected data. During this step, the remaining studies, and documents (n=37) were critically appraised using the CASP tool (CASP, 2018), as it provides the quality and validity of the methodology. An independent co-reviewer was consulted, who also applied the same CASP tool (see Annexure B).

The tool was used by the researcher and co-reviewer to eliminate bias. The studies were scored out of 10 with the critical appraisal tool. Only studies with a score of 8/10 or higher were included; studies that did not meet the relevant cut-off point on the instrument and studies with defects such as not meeting ethical considerations were excluded.

The CASP checklist for qualitative studies (CASP, 2018) was used for this research and consisted of the following 10 questions.

- Was there a clear statement of the aims of the research?
- Is a qualitative methodology appropriate?
- Was the research design appropriate to address the aims of the research?
- Was the recruitment strategy appropriate to the aims of the research?
- Was the data collected in a way that addressed the research?
- Has the relationship between the researcher and participants been adequately considered?
- Have ethical issues been taken into consideration?
- Was the data analysis sufficiently rigorous?
- Is there a clear statement of findings?
- How valuable is the research?

Marks were allocated using the number of questions the tool or checklist consisted of. For all studies, the evidence appraisal manual was followed for grading of studies using the following words and symbols for grading each level (Deepa *et.al.*, 2016:43).

- High quality, medium, and low quality

Table 3-5 shows the quality rating system, based on the above-mentioned tool, used by the researcher and the independent reviewer.

Table 3-5 The quality rating system

Quality rating	CASP score quality rating
A. High quality	>- 8/10
B. Good /medium quality	>-5/10 to <7/10
C. Low quality	>- 1/10 to <5/10

A data extraction table (Table 3-6 below) was drafted on studies found to be of high quality. The table contains information about each study, such as title, author, date of publication, the type of study, key words, the results, and the significance of the study for the review. The purpose of this is to identify the best available research studies to identify the benefits and challenges of clinical accompaniment of nursing students in clinical settings.

Table 3-6: List of studies with critical an appraisal n=37

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
1. Beukes, S., Nolte, A.G. W 2013 Health- SA-- Gesondheid	Value-sensitive clinical accompaniment in community nursing science	An exploratory, descriptive, participant observation and focus group interview	Clinical accompaniment Community nursing environment Undergraduate students' value-sensitive	Yes 8/10	Clinical accompaniment in community nursing does not value sensitivity. Values for which guidelines need to be developed were identified: respect during clinical accompaniment, value-sensitive communication, and sensitivity to the quality of clinical accompaniment.	Guidelines for value-sensitive clinical accompaniment need to be developed for undergraduate students in the community nursing environment.
2. Bosch, D.H. 2017 University of South Africa (MA)	Facilitation of the student nurse by a clinical nurse: the learner experience	A descriptive qualitative design- focus group interview	Clinical nurse specialist Clinical learning experiences Facilitation Student nurse	Yes 7/10	There is a lack of mentoring and facilitation by clinical nurses during training and clinical nurses should have an additional qualification to better the student`s experiences. The effectiveness of the clinical nurse in the clinical setting is a concern.	Nurse educators assist the student in training to receive facilitation and mentoring by a clinical nurse to be able to function as a competent independent practitioner.
3. Bray, F. 2013 University of Stellenbosch (MCur)	Students' views on their early clinical learning experiences	Qualitative, interpretive study – Semi-structured focus group	Clinical exposure Clinical learning experiences Nursing students	Yes 8/10	Early clinical exposure was generally positively perceived by students, feeling motivated and enhanced their learning interest, and provided students with a firm background to grasp content.	Clinical educators can use the insights presented in this study to tailor their teaching approaches to optimise clinical learning experience during their pre-clinical phase.

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
4. Caka, E.M. & Lekalakala-Mokgele, S. 2013 Health- SA- Gesondheid	The South African Military Nursing College pupil enrolled nurses' experiences of the clinical learning environment	Qualitative explorative design - focus group	The clinical learning environment Clinical teaching experience Pupil-enrolled nurses	Yes 7/10	Four findings were noted: facilitators of clinical learning, barriers to clinical learning, identified need for change, correlation of theory to practice.	Students need an environment that will yield positive learning experiences.
5. Daniels, A.D. & Jooste, K. 2018 Curationis	Support of students by academics in a nursing foundation programme at a university in the Western Cape	A qualitative, exploratory, and descriptive design – purposive sampling	Student support Nurturing environment	Yes 8/10	Experiences varied on a foundation programme. Participants expressed support in a nurturing environment in which the educators were open and approachable with a positive attitude. Educators could support students by being caring and advising in learning methods around the programme. Educators could focus on the method of peer support which should be encouraged beyond the programme to provide a sense of camaraderie amongst students.	Data revealed that support of educators in a foundation programme needs creative methods to make the learning environment nurturing for students. This provides for students from diverse backgrounds the opportunity to prepare for their studies at a university level. Insights gained from this study, which highlight the importance of supporting foundation students, could benefit all nurse educators offering foundation programmes.
6. Dimitriadou, M. Papastavrou, G., Efstathiou, G. & Theodorou, M. 2015	Baccalaureate nursing students' perception of learning and supervision in the clinical environment	Qualitative explorative study	Clinical learning environment Clinical placement Nursing students	Yes 7/10	The concepts “premises of nursing care” and “premises of learning” are highly correlated, indicating that a key component of a quality clinical learning	The results suggest the need to modify educational strategies that foster desirable learning for students in response to workplace demands.

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
Nursing Health Science					environment is the quality of care delivered.	
7. Du Toit, E.F. 2013 MCUR (NWU) Curationis in health science education, NWU, Potchefstroom	Nursing students' exposure to the clinical learning environment and its influence on their specialization choice.	An explorative and descriptive design	Clinical environment Nursing student Specialised area	Yes 6/10	Three main themes and 11 sub-themes were identified and provided clarity on the influence of the clinical environment on nursing students. Professional nurses taking an interest in students and using the training opportunity for students optimally, had a positive impact on students 'attitudes towards theatre.	The clinical environment influences the students' decision to specialise in the operating theatre, but many choose not to specialise in theatre due to personal preferences. The unit managers' positive attitude of acknowledgment and appreciation facilitated students' positive experiences of the operating theatre complex.
8. Donoghue, G. & Van der Heever, M. 2018 Curationis	Perception and experiences of undergraduates nursing students of clinical supervision	Descriptive study – purposive sampling	Clinical supervision Clinical practice Undergraduate nursing	Yes 7/10	Findings indicated positive and negative experiences on clinical learning and supervision: Professionalism and support was viewed as a positive experience by nursing students, while lack of knowledge and incompetence of clinical educators were viewed as a negative experience.	Recommendations were proposed to enhance clinical supervision and learning experiences of students' nurses.
9. Gerber, K. 2016 Nelson Mandela Metropolitan	Optimizing the work integrated learning of student nurses	Qualitative, exploratory, descriptive, and	Clinical placement	Yes 8/10	Student nurses experienced a multitude of challenges in the clinical placement areas (CPAs)	Relevant literature and recommendations offered by the student nurses were used to formulate

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
University (master's dissertation)		contextual design – purposive sampling	Clinical practice environnement expériences Nurse educators Student nurses Work integrated learning.		and at the NEI that negatively impact on their morale and hinder WIL, namely lack of resources, unsupportive learning environments, a lack of belonging, and workplace violence.	recommendations with action steps for nurse educators to optimise work integrated learning of student nurses.
10. González -Garcia, M., Lana, A., Zurrón-Madera, P., Valcárcel-Álvarez, Y. & Fernández-Feito Aliant, J. 2020 International Journal of Environmental Research and Public Health	Nursing students' experiences in clinical practice in emergency room and theatre	Qualitative method	Undergraduate nursing students Positive practice environment Primary supervisor Nurse educator	Yes 7/10	Both male and female students experienced intense emotions, improved their learning in complex environments, and acquired attitudes linked to the humanisation of care.	Enhancing the use of these reflective tools can contribute to a better understanding of the experience of nursing students during their clinical placements and encourage personal and professional growth, which is difficult to achieve through theoretical training.
11. Jamshidi, N., Molazem, Z., Sharif, F., Torabizadeh, C. & Najafi Kalyani, M. 2016 Scientific World Journal	The challenges of nursing students in the clinical environment	Qualitative study – purposive sampling method	Clinical education Clinical educator Nursing education Nursing student	Yes 5/10	Nursing students in Iran are faced with many challenges in the clinical learning environment. All challenges identified in this study affected the students' learning in clinical setting.	It is recommended that the instructors prepare students with a specific focus on their communication and psychological needs.
12. Joolae, S., Amiri, S.R.J. & Farahani, M.A.	Iranian nursing students' preparedness for	Qualitative research using content analysis approach - purposive sampling	Nursing student Preparedness Clinical setting	Yes 6/10	Nursing students are not psychologically prepared	Reduce students' fear and anxiety of facing the reality and preparing them for a better beginning through

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
2015 Nurse Education Today	clinical training. A qualitative study	and semi-structured interviews	Clinical training		for internships in clinical settings.	conducting workshops in retraining and practicing clinical skills.
13. Kgafela, N.S. 2013 University of Pretoria (MCur)	Views of pre-graduate students regarding clinical accompaniment at a nursing education institution in Gauteng	Qualitative, contextual, qualitative and descriptive research design	Clinical accompaniment Clinical learning experience Nursing students	Yes 8/10	The ideal clinical accompaniment would include: Nurse educator support, registered nurse support, students' professional development, and multidisciplinary team support. These areas must be addressed during clinical accompaniment to move towards excellence and enhance clinical learning.	Support and guidance to students in CLE by clinical educators. Integration of theory into practice for positive clinical learning
14. Labeeb, S.A., Rajith, C.V., Ibrahim, M.A., Kamal, N.A. & Francis, J. 2017 Journal of Education and Practice	A qualitative study on factors affecting the clinical learning of nursing students in College of Nursing, Kuwait	A descriptive qualitative research design	Clinical learning Nursing students Qualitative study	Yes 8/10	Students identified hindering factors like clinical educators' incompetence, non-supportive staff, fewer opportunities to practice skills, patient refusal, language barriers, and rejection. Clinical educators should improve their teaching behaviour to make the clinical practice more instructive and useful.	Provide an orientation programme to the clinical educators participating in the clinical training of students. Nurse education must commit itself to a high level of clinical practice for students in nursing. Department of nursing education must establish and maintain a cordial working relationship with

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
						nursing service departments.
15. Lekhuleni, M.E. & Jali, M.N. 2015 African Journal for Physical Health Education, Recreation and Dance	The adaptation of first year nursing students regarding theory and experiential learning at the University of Limpopo, South Africa	Qualitative explorative description design, focus group, semi-structured interview	Adaptation Nursing students Experiential learning	Yes 9/10	The study found that first-entering students face challenges such as different facilitation methods that are used and lack of computer skills. During experiential learning these students' adaptation is slow due to inadequate orientation in the hospital as well as professional nurses that demonstrate skills differently from the way they are taught in class.	The first-year nursing students should be accompanied by the same educator who facilitates the theory module. These students should use practical reflective journals and a computer literacy module should be offered to them.
16. Letswalo, L.O. & Peu, M.D. 2015 African Journal for Physical Health Education, Recreation and Dance	Perceptions of student nurses regarding accompaniment in the clinical environment in Gauteng Province, South Africa	Qualitative explorative and descriptive design – focus group	Accompaniment Student nurse Clinical practice Clinical environment	Yes 9/10	Inadequate clinical supervision and lack of commitment by professional nurses in teaching students. Disregard of student status by clinical staff. A hostile clinical environment.	To achieve efficient and effective accompaniment, student status should be recognised by clinical staff. Creation of conducive learning environment. Appropriate supervision of students facilitated by professional nurses in the clinical environment.
17. Mahmoud, M.H. 2014 International Journal of Current Research	Practical learning and theory-practice gap as perceived by nursing students	An explorative and descriptive design	Clinical accompaniment Clinical setting	Yes 7/10	Nursing students must be adequately prepared to conduct clinical skills competently and efficiently.	Major challenge to the nursing profession is to find ways of merging theory and practice in the delivery

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
			Clinical preceptors Nursing students		Educators and clinical preceptors must display the knowledge and skills required to promote theory-practice integration, to enhance nursing students' education, which in turn will optimise high standards of patient care relevant to clinical practice.	of nursing education and patient care. Nurse educators are to spend time in clinical practice, updating their clinical skills and re-experiencing the realities of practice. Set same criteria for assessing both written work and performance reality of the clinical environment.
18. Manamela, L.E. 2019. (Doctoral dissertation) University of Pretoria	Challenges during clinical accompaniment: a reflection of the undergraduate nursing students in Limpopo	Qualitative study – purposive sampling	Accompaniment Clinical learning environment Nursing students Reflections	Yes 9/10	Three main themes and sub-themes related to challenges of the undergraduate nursing students within the clinical learning environment: 1. Inadequate learning opportunities. 2. Attitude of professional nurses 3. Challenges experienced by students.	A conducive learning environment should be established to enable nursing students to acquire professional knowledge and skills through teamwork between nursing education institutions, clinical staff, and multidisciplinary team members. Student nurses must be treated fairly, irrespective of their educational field.
19. Matshotyana, N.A. Van Rooyen, D. & Durant, Z.	Experiences of first year nursing students at a public	A qualitative, explorative descriptive	Experiences Nursing education	Yes 8/10	The findings indicated that most of the students' experiences in their first	It is recommended that nursing educators and professional nurses in the clinical practice

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
2015 African Journal of Nursing and Midwifery	nursing college in South Africa	approach – interviews	Nursing students		year of study were negative. These negative experiences were related to the campus management as well as the specific experiences that were related to their knowledge and skills acquisition in both the classroom and clinical practice environments.	environment should aim to optimise the teaching-learning environment of first-year nursing students to improve retention and graduation.
20.McVey, C., Glynn, D.M., Wendt, J. & Russell, B. 2017 Journal of Professional Nursing	Dedicated educational nursing unit: clinical instructor`s role perceptions and learning needs	Qualitative study- interviews	Clinical instructors Perceived learning needs	Yes 7/10	The themes that emerged related to role perception were mentoring, ensuring competency with basic skills and tasks, and development of critical thinking in nursing clinical education.	The themes related to the perceived learning needs of staff nurses related to the role of the clinical instructor were the need for clear objectives from the academic affiliate, better coordination and acknowledgment by the academic affiliate, and additional education in dealing with students with diverse learning needs and accommodations.
21.Meyer, R., Van Schalkwyk, S.C. & Prakaschandra, R. 2016 Nurse Education in Practice	The operating room as a clinical learning environment	An exploratory study	Clinical learning Operating room Student perception	Yes 7/10	The negative perception of nursing students regarding learning experiences in the operating room.	Nurse education needs to explore the preparatory needs of students' specific learning outcomes before being placed in operating theatre.

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
						Collaboration between educators, mentors, and theatre managers.
22.Mogale, L.C. 2011 University of South Africa (MCur)	Student nurses' experiences of their clinical accompaniment	Qualitative study – interviews	Accompaniment Clinical field Clinical teaching	Yes 8/10	Students experienced dissatisfaction in terms of their development of clinical skills to competence, due to negative circumstances around their training.	Recommendations were made to improve the clinical accompaniment of student nurses to acquire clinical skills, knowledge, and values.
23.Moleki, M. M. & Mogotlane, S.M. 2011 Africa Journal of Nursing and Midwifery	Critical care student nurses' experiences of clinical accompaniment in open distance learning	A qualitative hermeneutic phenomenological approach	Clinical accompaniment Critical care Student nurses Open distance learning	Yes 7/10	Participants were aware of distance as a factor between themselves and the educator. The non-visibility of the educator was interpreted as a lack of support and guidance. Students in the clinical settings experienced a lack of recognition as intensive care student nurses compared to the support given to their counterparts doing the same course at residential institutions.	Student support could be enhanced by the educator's physical visibility, even if implemented through technology. The training of critical care student nurses should be done on the request of specific clinical institutions. Memoranda of agreement should be in place and accreditation processes should be completed before any student intake occurs.
24.Mothiba, T.M., Lekhuleni, M.E., Maputle, M.S. & Nemathaga, L.H. 2012	Student nurses' clinical learning experiences in a public hospital at the Capricorn district, Limpopo	Qualitative, explorative, descriptive, and phenomenological research – unstructured interviews	Clinical education Clinical educator Nursing education Nursing student	Yes 7/10	Teaching and learning support for nursing students and opportunities of learning, integration of theory and practice and interpersonal relationships between the student nurses	Strategies which could encourage provision of support to student nurses during their clinical learning periods in hospitals.

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
African Journal for Physical Health Education, Recreation and Dance					and clinical staff are negatively impacting on student nurses' clinical experiences.	
25.Mothibi, N.N. 2017 University of the Free State (PhD)	Experiences of student nurses in the Northern Cape regarding their clinical accomplishment	Qualitative study- within the phenomenology with explorative, descriptive, and contextual designs – focus group interviews.	Clinical accompaniment Nursing students Clinical learning opportunities Nursing education and training Clinical practice	Yes 8/10	Findings illustrated a lack of support and resources (material and human), insufficient coordination and communication between the nursing college and the clinical facilities, as well as deficient professional conduct.	The development of a structured clinical accompaniment plan. The college and the clinical facilities should foster clear communication channels to ensure adequate guidance and support of students. The appointment and training of preceptors may address some of the challenges regarding clinical accompaniment of students.
26.Motsaanaka, N.M., Makhene, A. & Ally, H. 2020 Faculty of Health Sciences, University of Johannesburg, South Africa	Student nurses' experiences regarding their clinical learning opportunities in a public academic hospital in Gauteng province, South Africa	A qualitative, explorative, descriptive, and contextual design	Clinical accompaniment Clinical learning opportunities	Yes 8/10	Poor work integration, theory, and practice overcrowding. Negative emotional experiences of student nurses and teaching challenges of professional nurses.	Student nurses had more negative than positive emotional experiences. Therefore, the need to enhance their clinical learning opportunities to address the optimisation of learning experiences is eminent.
27.Motsilenyane, P. 2015	Exploring the clinical challenges of second-year students'	Qualitative, explorative, and descriptive design- focus group	Clinical accompaniment Clinical facilitator	Yes 8/10	Challenges related to ineffective communication, inconsiderate attitudes, insufficient resources.	The guidelines should specify the annual SANC authorised period of clinical accompaniment a student

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
University of Pretoria (MCur)	experience at a nursing education institution in North-West		Nursing education			should receive as well as the objectives for the level.
28.Mthombeni, C. S. & Phaladi-Digamela, M.R. 2015 Africa Journal of Nursing & Midwifery		A qualitative, explorative, and descriptive study-focus group interview	Accompaniment Clinical learning environment	Yes 8/10	The findings revealed the clinical learning experiences of participants in the maternity wards, which is part of their midwifery education at the nursing college, was challenging. Participants considered intra-partum clinical learning to be difficult.	A planned supervision programme and the accompaniment of all students, to assist in achieving the learning outcomes and improving communication between the nursing college and hospital operational managers in the maternity ward to address the needs of male students during midwifery training.
29.Muthathi, I.S., Thurling, C.H. & Armstrong, S.J. 2017 Curationis	Through the eyes of the student: best practices in clinical facilitation	A qualitative, descriptive study	Best practices Clinical accompaniment Clinical facilitation Clinical Clinical learning environment	Yes 8/10	Participants differentiated between best practices in clinical facilitation in the clinical skills laboratory and the clinical learning environment. In the skills laboratory pre-contact preparation, demonstration technique, and optimising group learning were identified as best practices. Standardisation of procedures in simulation and practice emerged.	The clinical training grant should be used to fund nursing education to a greater extent to improve student-facilitator ratios.

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
30.Nyelisani, M. 2016 University of Pretoria (MCur)	Evaluating the clinical learning environment of first year nursing students at a nursing education institution in Gauteng	Qualitative and descriptive design – self-reported interview	Clinical education Clinical educator Nursing education Nursing student	Yes 8/10	A supportive CLE is important for first-year nursing students for successful teaching and learning.	To enhance the clinical learning environment for first-year nursing students and work towards educational excellence in this unique CLE.
31.O'Mara, L., McDonald, J., Gillespie, M., Brown, H. & Miles, L. 2014 Nurse Education in Practice	Challenging clinical learning environments: experiences of undergraduate nursing students.	Descriptive study design	Clinical educator Clinical learning environment Faculty-student relationships Student perceptions	Yes 7/10	CLE decreased students' learning opportunities and impacted them as persons. As students determined which relationships were challenging, they tapped other resources and they used strategies to rebuild, reframe, redirect and/or retreat relative to the specific challenge.	Relationships also acted as buffers to unsupportive practice cultures. Implications for practice and research are addressed by the challenges of decreased students learning opportunities and learning experiences.
32.Rikhotso, S.R., Williams, M.J. & De Wet, G. 2014 Curationis	Student nurses' perceptions of guidance in rural hospitals	Focus group interviews	Experience Clinical accompaniment Nursing student Professional nurse	Yes 9/10	Failure to support and guide nursing students professionally may lead to high turnover and absenteeism, resulting in students' refusal to be allocated to a rural hospital for clinical exposure.	Proposed guidelines have been formulated for clinical guidance and support of nursing students at the selected rural hospital. The college and hospital management should foster collaboration between the college educators and professional nurses to ensure adequate guidance and support of nursing students.

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
33.Sibiya, N.E. & Sibiya, M.N. 2014. South African Journal of Higher Education	Work integrated learning experiences of primary health care post-basic nursing students in clinical settings: a university of technology context: part 1: Contemporary issues in nursing	A qualitative study	Nursing students Work integrated learning	Yes 8/10	The study findings revealed that there was a lack of supervision by educators in the clinical facilities as regular accompaniment was not accomplished. To ensure that students can correlate theory and practice and are supported academically, nurse educators must provide accompaniment.	It is recommended that meaningful collaboration be ensured between nursing education and the Health Care Delivery System to encourage alignment of goals. Faculty members should work closely with clinical nurse managers to be able to tackle challenges successfully.
34.Shezi, B.E. 2014 NWU (MCur)	The needs of community service nurses about supervision and clinical accompaniment	A qualitative design using exploratory semi-structured interviews	Accompaniment Community service nurse	Yes 7/10	The community service nurses appeared to be in desperate need of clinical supervisors to guide, coach, support, and be role models to them. Nurses needed to develop confidence, competence, independence, and critical thinking skills during community service practice.	To formulate a policy guiding healthcare facilities on how to ensure that community service nurses obtain maximum clinical experience and exposure from their institutional placement.
35.Tyanti, M. & Seekoe, E. 2015 African Journal for Physical Health Education, Recreation and Dance	Experiences of third year student nurses regarding clinical practice at Liliitha College of Nursing in the Eastern Cape Province, South Africa	A qualitative, explorative, and descriptive research design – focus group interview	Clinical education Clinical educator Nursing education Nursing student	Yes 8/10	Access to clinical teaching and learning was viewed as positive experiences by the students. The participants confirmed that a teaching programme in a psychiatric institution was designed according to their objectives which	There is a need for proper clinical accompaniment by college staff to ensure that clinical learning takes place.

Author, Year & Publication	TITLE / population	Type of study/ Design and method	Key Words	Relevancy & CASP score	Findings	Conclusion of the study/Recommendations
					enabled the students to correlate with what they have learned in class.	
36.Yousef ,A. Yazdannik, A.R. & Mohammadi, S. 2015 Nurse Education Today	Exploring the environment of clinical baccalaureate nursing students' education in Iran	Qualitative descriptive study, individual participant observation	Clinical education Clinical educator Nursing education Nursing student	Yes 7/10	Uncritical and dependent thinking climate, incompetency of clinical educators and patient education are important components of nursing education and the clinical environment in Iran.	Maximise meaningful learning opportunities, re-evaluate clinical instructors as role models, and prepare an effective operational plan to combine theoretical and evidence-based knowledge with clinical practice.
37.Zenani, N.E. 2016 University of Western Cape (MCur	Challenges experienced by second and third-year nursing students when integrating theory into practice in selected clinical setting in the Western Cape Province.	Qualitative approach – semi-structured focus group	Clinical setting Integration Competence Nursing student Theory-practice gap	Yes 8/10	The study highlights that nursing students still experience a challenge with integrating theory into practice in the clinical setting.	Promote clinical accompaniment and guidance which forms a crucial role in the professional development of nursing students. Nursing students require sufficient support from clinical preceptors and nursing educators.

3.5 Extracting data from each study and document

The final 21 studies (Table 3-8) were extracted after the reviewer and the co-reviewer had independently conducted a critical appraisal of selected studies and a consensus was reached regarding the different critical appraisal mark allocations.

Data analysis represents another important step in conducting research, which is concerned with interpreting the results obtained from the selected sources (Sutton & Austin, 2015:226). During this step, the information collected from the included documents was combined and presented in a synthesised fashion (Van der Berg *et al.*, 2013:6). In this study, data was aggregated and analysed.

Table 3-7: Two categories with themes contributing positively or negatively to the clinical accompaniment of student nurses.

NO	CATEGORY (C)	THEMES (T)	SUB-THEMES
C1	The benefits of clinical accompaniment	<p>T1.1 Early clinical exposure for best clinical learning and practise for nursing students.</p> <p>T1.2 Effective learning in CLE if students are supported by opportunities to practice what they have learned in the classroom and skills laboratory.</p> <p>T1.3 Best practice in demonstrating skills when students are divided into a smaller, more manageable group.</p> <p>T1.4 Effective clinical supervision and support by clinical educators and clinical staff to students.</p>	
		<p>T1.5 Conducive learning environment for nursing students.</p>	<p>ST1.5.1 Effective communication and good interpersonal relationships.</p> <p>ST1.5.2 Provision of human and material resources.</p> <p>ST 1.5.3 Improved coordination and collaboration between NEI`s and clinical facilities.</p> <p>ST1.5.4 Positive experiences of knowledge-sharing with</p>

NO	CATEGORY (C)	THEMES (T)	SUB-THEMES
			and from various healthcare disciplines.
C2	Challenges experienced during clinical accompaniment of nursing students	T 2.1 The theory–practice gap. T 2.2 Negative attitude of clinical staff. T 2.3 Lacking human and material resources. T 2.4 Inadequate planning which leads to a hostile environment. T2.5 Overcrowding of wards.	

After the critical appraisal and an agreement reached with the co-reviewer, all studies included were considered the final samples for summarising the evidence. A total of 21 studies, which received a CASP score of 8/10 or higher, were finally included, as seen in Table 3-8 below.

Table 3-8: Data extraction table after critical appraisal results n=21

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
1. Beukes, S., Nolte, A.G.W. 2013 Health S A / Gesondheid	Value-sensitive clinical accompaniment in community nursing science	An exploratory, descriptive, participant observation and focus group interview. Data analysis- not stated	Clinical accompaniment in community nursing does not value sensitivity. Values for which guidelines need to be developed, were identified: respect during clinical accompaniment, value-sensitive communication, and sensitivity to the quality of clinical accompaniment.	<ol style="list-style-type: none"> 1. Nursing students taking active participation (T1.4) 2. Sensitivity to the quality of clinical accompaniment (T1.5) 3. Respect during clinical accompaniment and value-sensitive communication (T1.5.1) 4. Ethical values are important (ST1.5.1) 5. Students felt embarrassed if shouted at (T2.2)
2. Bray, F. 2014 University of Stellenbosch (MCur)	Students' views on their early clinical learning experiences	Qualitative, interpretive study Data collection – semi-structured interview Data analysis – done manually, coding content analysis.	Early clinical exposure was generally positively perceived by students, feeling motivated and enhancing their learning interest and providing students with a firm background to grasp content.	<ol style="list-style-type: none"> 1. Positive outcomes of early clinical exposure (T1.1) 2. The academic benefit of early clinical training (T1.1) 3. Challenges of early clinical exposure and training (T1.1) 4. Reduction of student to clinical educator ratio of 20:1 must be reduced to the desired ratio of 8:1 (T1.3) 5. Conducive learning environment (T1.5)
3. Daniels, A.D. & Jooste, K. 2018 Curationis	Support of students by academics in a nursing foundation programme at a university in the Western Cape	A qualitative, exploratory, and descriptive design – purposive sampling Data analysis – data transcribed verbatim, open coding analysis.	Educators could support students by being caring and advising in learning methods around the programme. Educators could focus on the method of peer support which should be encouraged beyond the programme to provide a sense of camaraderie amongst students	<ol style="list-style-type: none"> 1. Educators are to support the students by being caring and advising in learning methods (T1.4) 2. Foster collaboration between college educators and professional nurses (ST1.5.3) 3. Poor interpersonal relationships and lack of communication (T2.3)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
4. Gerber, K. 2016 Nelson Mandela Metropolitan University (PhD)	Optimising the work integrated learning of student nurses	Qualitative, exploratory, descriptive, and contextual design – purposive sampling Data analysis – transcribed verbatim, thematically, using the Tesch method of analysis	Student nurses experienced a multitude of challenges in the CPAs and at the NEI that negatively impacted on their morale and hindered WIL, namely lack of resources, unsupportive learning environments, a lack of belonging, and workplace violence.	<ol style="list-style-type: none"> 1. Registered nurses were unwilling to assist nursing students (T2.2) 2. Lack of supervision and inadequate equipment (T2.3) 3. Students want staff who are dedicated to supporting them in practice (T1.4) 4. Positive experiences resulted in motivated and enthusiastic students, being inspired by role models enhanced learning when support was afforded (T1.4)
5. Kgafela, N.S. 2015 University of Pretoria (MCur)	Views of pre-graduate students regarding clinical accompaniment at a nursing education institution in Gauteng	Qualitative, contextual, explorative design Data collection: third- and fourth-year students, semi-structured interview. Data analysis: the 4D cycle of using content analysis & analysis co-coder.	The ideal clinical accompaniment would include: Nurse educator support, registered nurse support, students' professional development, and multidisciplinary team support. These areas must be addressed during clinical accompaniment to move towards excellence and enhance clinical learning.	<ol style="list-style-type: none"> 1. Support and guidance to students in CLE by clinical educators (T1.4) 2. Caring and advising in learning methods throughout the programme (T1.4) 3. Professional nurses to ensure adequate guidance and support for nursing students (T1.5.3) 4. Integration of theory into practice for positive clinical learning (T2.1).
6. Labeeb, S.A., Rajith, C.V., Ibrahim, M.A., Kamal, N.A. & Francis, J. 2017	Factors affecting the clinical learning of nursing students in College of Nursing, Kuwait	A descriptive, qualitative research design Data analysis-not stated	Students identified hindering factors like clinical educators' incompetence, non-supportive staff, fewer opportunities to practice skills, patient refusal, language barriers, and rejection. Clinical educators should improve their teaching behaviour to make	<ol style="list-style-type: none"> 1. The clinical area gave nursing students a great opportunity to practise the skills repeatedly (T1.1) 2. Provide an orientation programme to the clinical educators participating in the clinical training of students (T1.2)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
Journal of Education and Practice			the clinical practice more instructive and useful.	<ol style="list-style-type: none"> 3. Nurse educators must commit themselves to a high level of clinical practice for students in nursing (T1.2) 4. The clinical practices offer an excellent opportunity to practise and learn and this in turn, help students to develop as professionals (T1.4) 5. Department of nursing education must establish and maintain a cordial working relationship with nursing service departments (ST1.5.2) 6. Nursing experienced language barriers, rejection by patients, and fewer opportunities to practice skills (T2.2) 7. The quality of their CLE as they stated that it did not meet nursing students learning needs (T2.3)
7. Lekhuleni, M.E. & Jali, M.N. 2015 African Journal for Physical Health Education, Recreation and Dance	The adaptation of first year nursing students regarding theory and experiential learning at the University of Limpopo	Qualitative explorative design Data collection – focus group semi-structured interview. Data analysis – Tesch open coding method	The study found that first-entering students face challenges such as different facilitation methods that are used and lack of computer skills. During experiential learning these students' adaptation is slow due to inadequate orientation in the hospital as well as professional nurses that demonstrate skills differently from the way they are taught in class.	<ol style="list-style-type: none"> 1. The use of different facilitation methods (T1.4) 2. Inadequate orientation of student nurses (T2.3)
8. Letswalo, L.O. & Peu, M.D. 2015	Perceptions of student nurses regarding accompaniment in	Qualitative, explorative, and descriptive design	Inadequate clinical supervision and lack of commitment by	<ol style="list-style-type: none"> 1. Ability of Clinical educators to evaluate students' performance (T1.1)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
African Journal for Physical Health Education, Recreation and Dance	the clinical environment in Gauteng Province, South Africa	Data collection – focus group semi-structured interview. Data analysis – Tesch open coding method	professional nurses in teaching students. Disregard of student status by clinical staff. A hostile clinical environment.	<ol style="list-style-type: none"> 2. Inadequate clinical supervision (T2.3) 3. Disregard of student status by clinical staff, hostile clinical environment (T2.3) 4. No learning in overcrowded wards (T2.5)
9. Manamela, L.E. 2019 University of Pretoria (MCur)	Challenges during clinical accompaniment: reflections of the undergraduate nursing students	Qualitative study Data collection – focus group interviews. Data analysis: Tesch open coding	<p>Three main themes and sub-themes related to challenges of the undergraduate nursing students within the clinical learning environment:</p> <ol style="list-style-type: none"> 1. Inadequate learning opportunities. 2. Attitude of professional nurses. 3. Challenges experienced by students. <p>Conducive learning environment should be established to enable nursing students to acquire professional knowledge and skills.</p>	<ol style="list-style-type: none"> 1. Inadequate learning opportunities (T2.1) 2. Attitude of professional nurses (T 2.2) 3. Conducive Learning Environment (CLE) for professional knowledge sharing (ST1.5.3) 4. Overcrowded wards (T 2.5)
10. Matshotyana, N.A, Van Rooyen, D. & Durant, Z. 2015 African Journal of Nursing and Midwifery	Experiences of first year nursing students at a public nursing college in South Africa	Qualitative, exploratory, descriptive design Data collection through interviews Open coding system using the Tesch method of thematic data analysis.	The findings indicated that most students' experiences in their first year of study were negative. These negative experiences were related to the campus management as well as the specific experiences that were related to their knowledge and skills acquisition in both the	<ol style="list-style-type: none"> 1. Conducive-learning environment that encourages student learning (T1.5) 2. Participants' negative experiences related to knowledge and skill acquisition in clinical practice environments (T2.2) 3. Participants' negative experiences related to the management of the college (T2.3)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
			classroom and clinical practice environments.	4. Participants' negative experiences related to knowledge and skill acquisition in the classroom (T2.4)
11. Mogale, L.C. 2011 University of South Africa (MCur)	Student nurses' experiences of their clinical accompaniment	Exploratory, descriptive design Data collected through interviews. Data analysis by using editing analysis style, open coding system in accordance with steps – Tesch	Students experienced dissatisfaction in terms of their development of clinical skills to competence, due to negative circumstances around their training.	1. Lack of proper integration of theory into practice (T2.1) 2. Lack of support from the nurse educator (T2.3) 3. Student challenges regarding lack of equipment (T2.3) 4. Students' challenges in relation to leadership role of management (T2.3) 5. Lack of equipment and human resources hinders the smooth running of the institution (T2.4)
12. Mothibi, N.N. 2017 University of the Free State (PhD)	Experiences of student nurses in the Northern Cape regarding their clinical accompaniment	Qualitative study within the phenomenology with explorative, descriptive, and contextual designs – focus group interviews	Findings illustrated a lack of support and resources (material and human), insufficient coordination and communication between the nursing college and the clinical facilities, as well as deficient professional conduct.	1. The appointment and training of preceptors may address some of the challenges regarding clinical accompaniment of students (T1.5.1) 2. Supported and supervised students displaying knowledge (T1.4) 3. Limited practical opportunities for learning (T2.5)
13. Motsaanaka, N.M., Makhene, A. & Ally, H. 2020 Faculty of Health	Student nurse experiences regarding their clinical learning opportunities in a public academic hospital in Gauteng province	Qualitative explorative, study Data was collected through a focus group interview. Data analysis – thematic coding of qualitative data	Poor work integration, theory and practice overcrowding, negative emotional experiences of student nurses, and teaching challenges from professional nurses.	1. Clinical supervision whereby nursing students are provided with professional support, learning, and training (T1.4) 2. Improved coordination and collaboration between nursing colleges and clinical facilities (T1.5.3)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
Sciences, University of Johannesburg, South Africa				<ol style="list-style-type: none"> 3. Positive experience entailed knowledge-sharing amongst various healthcare disciplines (ST1.5.4). 4. Opportunity to link theory and practice (T2.1) 5. Negative emotional experiences of student nurses and challenges of professional nurses (T2.2) 6. Inadequate exposed to clinical learning and opportunities to practise skills (T2.4) 7. Overcrowding wards by students of various healthcare disciplines, impedes clinical training and learning opportunities, resulting in a lack of achieving the clinical objectives (T2.5)
14. Motsilenyane, P. 2015 University of Pretoria (MCur)	Exploring the clinical challenges of second-year students' experience at a nursing education institution in North-West Province	Qualitative, exploratory, descriptive design Data collection – focus group interview. Data-analysis – content analysis	Challenges related to ineffective communication, inconsiderate attitudes, insufficient resources, and inadequate planning.	<ol style="list-style-type: none"> 1. Ineffective communication (ST1.5.1) 2. The skills laboratory needs to be well equipped to a modern standard to meet the needs of the students (T1.2) 3. Support in clinical areas (T1.4) 4. The clinical supervisor should strive to employ various training strategies (ST1.5.2) 5. The theory practice gap (T2,1) 6. Inconsiderate attitudes (T2.2). 7. Insufficient resources (T2.3). 8. Conducive Learning Environment (T1.5) 9. Inadequate planning (T2.4)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
15. Mthombeni, C. S. & Phaladi-Digamela, M.R. 2015 Africa Journal of Nursing & Midwifery	Midwifery education at a nursing college in Limpopo: clinical learning experiences of nurses	A qualitative, explorative, and descriptive study Data collection, focus group interview. Data analysis –Tesch open thematic coding	The findings revealed the clinical learning experiences of participants in the maternity wards, which is part of their midwifery education at the nursing college, was challenging.	<ol style="list-style-type: none"> 1. Clinical learning in the maternity ward must address all the needs of students during their clinical rotation (T2.4.) 2. Lack of supervision and accompaniment of male students (T2.4)
16. Muthathi, I.S., Thurling, C.H. & Armstrong, S.J. 2017 Curationis	Through the eyes of the student: best practices in clinical facilitation	Qualitative, exploratory, descriptive design Data collection – focus group interview. Data analysis – thematic coding	In the skills laboratory pre-contact preparation, demonstration technique, and optimising group learning were identified as best practices.	<ol style="list-style-type: none"> 1. Best practice for facilitating learning in the clinical practicum (T1.1) 2. Best practice for facilitating learning in the clinical simulation laboratory (T1.2) 3. Working in small groups affords students an opportunity to interact with each (T1.3) 4. Professional nurses to teach in the clinical learning environment, thus in-turn makes student feels supported. (T1.4) 5. Allocation to clinical areas and support for students (T2.1) 6. Some clinical learning areas to have a negative outcome on student learning (T2.3)
17. Nyelisani, M. 2016 University of Pretoria (MCur)	Evaluating the clinical learning environment of first-year nursing students at a nursing education institution in Gauteng	Qualitative, exploratory, descriptive design Data collection – focus group interview. Qualitative content analysis method.	A supportive CLE is important for first-year nursing students for successful teaching and learning.	<ol style="list-style-type: none"> 1. Knowledge acquired through clinical practice (T1.1) 2. Support for students by clinical educators (T1.4). 3. Nursing students learned a lot in the hospital environment (CLE), and it is a good experience to be next to the patient (T1.5)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
18. Rikhotso, S.R., Williams, M.J. & DWet, G. 2014 Curationis	Student nurses' perceptions of guidance in rural hospitals	Qualitative, exploratory, descriptive design Data collection – focus group interview. Qualitative content analysis method	Failure to support and guide nursing students professionally may lead to high turnover and absenteeism, resulting in students' refusal to be allocated to a rural hospital for clinical exposure.	<ol style="list-style-type: none"> 1. Proper student support and guidance in a clinical setting (T1.4) 2. Mutual distrust and disrespect (T2.2) 3. Lack of support by ward professionals may lead to high turnover and absenteeism resulting in students' refusal to be allocated to a rural hospital (T2.2) 4. Hostile hospital environment (T2.4)
19. Sibiya, N.E. & Sibiya, M.N. 2014 Part 1: Contemporary issues in nursing. South African Journal of Higher Education	Work integrated learning experiences primary health care post-basic nursing students in clinical settings	A qualitative study - purposive sampling Qualitative content analysis method	<p>The study findings revealed that there was a lack of supervision by educators in the clinical facilities as regular accompaniment was not accomplished.</p> <p>To ensure that students can correlate theory and practice and are supported academically, nurse educators must provide accompaniment.</p>	<ol style="list-style-type: none"> 1. Shortage of staff (T2.3) 2. Lack of human and material resources (T2.3) 3. Hostile environment (T2.4)
20. Tyanti, M. & Seekoe, E. 2015 African Journal for Physical Health Education, Recreation and Dance	Experiences of third year student nurses regarding clinical practice at Lilitha College of Nursing in the Eastern Cape Province, South Africa	A qualitative, explorative, and descriptive research design Data collection – focus group semi-structured interview. Data analysis – Tesch open coding method	<p>Access to clinical teaching and learning was viewed as positive experiences by the students.</p> <p>The participants confirmed that a teaching programme in a psychiatric institution was designed according to their objectives which enabled the students to correlate with what they have learned in class.</p>	<ol style="list-style-type: none"> 1. Inadequate clinical accompaniment by the college staff (T2.1) 2. The correlation of theory to practice (T2.1)

Authors and Publication	Title	Research methods – data collection and data analysis	Conclusions/Findings	Theme or sub-theme
21. Zenani, N.E. 2016 University of Western Cape (MCur	Challenges experienced by second and third-year nursing students when integrating theory into practice in a selected clinical setting in the Western Cape Province.	Qualitative approach – semi-structured focus group Data analysis?	The study highlights that nursing students still experience a challenge with integrating theory into practice in the clinical setting.	<ol style="list-style-type: none"> 1. Experiential learning in clinical settings as of great importance. (T1.5) 2. Effective communication in a clinical environment (ST 1.5.1) 3. Inadequate support structures and communication (T2.3) 4. Nursing students still experience a challenge with integrating theory into practice in the clinical settings (T2.1)

Synthesis of findings

Using thematic analysis, the findings from each of the 21 studies were compared and synthesised, looking for similarities and divergences Centre for Reviews and Dissertations (CRD) (2009:228). Table 3-8 shows different themes and sub-themes as a recurring regularity emerging from an analysis of qualitative data (Polit & Beck, 2017:510), that were identified as strategies through which the benefits and challenges of clinical accompaniment for nursing students are made clear. The function of a theme is to categorise a set of data into an implicit topic that organises a group of repeating ideas. Themes provide an explanation for why certain things are happening and some themes are morals derived from participants' stories (Polit & Beck, 2017:510). Two main categories were identified, and ten themes with four sub-themes emerged, as shown in Table 3-7 These themes are discussed in the next section.

3.6 Discussion of Themes

Category 1: The benefits of clinical accompaniment

Theme 1.1: Early clinical exposure for best clinical learning and practise for nursing students

The greatest advantage of early clinical accompaniment is that it helps students build positive attitudes, enabling them to succeed in developing clinical skills, and providing them with a sound preparation for the next phase of their learning (Bray, 2013:17). Students expressed positive feelings about early clinical exposure. Nyelisani (2016:76) states that practical knowledge is acquired through clinical experience, this knowledge is also acquired through participation in the real tasks in the clinical area by nursing students and through interaction with other nurses; furthermore, clinical accompaniment and practical experience provides students with knowledge of technical procedures and some degree of skills performance.

Although students identified some challenges that they encountered during this early clinical experience, they simply needed support from the facility and their clinical educators to enhance this positive and rewarding learning experience (Bray, 2013:18). The researcher believes the best possible solution to ensure students achieve their objectives is for the nurse educator to be available during the six hours of student allocation, supporting them and assessing competencies (Bray, 2013:18)

Letswalo and Peu, (2015:356) state that clinical educators evaluate students' performance and give positive constructive feedback to motivate students, this motivation develops confidence,

which is equated with independent problem-solving ability, courage, and discernment of what to follow in the nursing practice.

Nurse educators should choose placements that promote student learning socialisation (Muthathi *et al.*, 2017:7). Muthathi further noted that best practice was also associated with being allocated to the clinical practicum soon after learning in the clinical skills laboratory, to reinforce the demonstrated skills and to facilitate the skills transfer to the real situation. One of the participants stated:

'...It would help if the demonstrations we've got in the demonstration room [Clinical Skills Laboratory] and then the allocations that we have got in the clinical setting, like correlated with each other. Because it does not help you teach me something in January or you demonstrate something in January, but you are only going to allocate me to that ward let us say in May/June. Whatever I was taught then, it is still there but it is not as fresh.' (Participant 4, Female, 4th year student).

The authors found that most students felt that clinical accompaniment offered excellent opportunity to practise and learn and help them to develop as professionals (Labeeb *et al.*, 2017:145). Students emphasised that they have met with a lot of patients and that the full beds in the clinical area gave them a great opportunity to practise the skills repeatedly. Emphasis on offering learning opportunities for students in the hospitals and the utilisation of these opportunities facilitates clinical learning (Labeeb *et al.*, 2017:145).

Theme 1.2: Effective learning in CLE if students are supported by opportunities to practice what they have learned in the classroom and skills laboratory.

Muthathi *et al.* (2017:3) state that allocation to clinical environment soon after acquiring learning in the skills laboratory reduces confusion and reinforces learning. This creates efficient transference of skills learned in the clinical skills laboratory to clinical practicum.

Students believed that the availability of equipment helped them to practice the procedures in the correct way as it was taught in the skills laboratory, and this facilitated real learning. Students consider the clinical practice as valuable by expressing that clinical practices prepare them to manage the real situations in future as they are going through real-life experiences (Muthathi *et al.*, 2017:3).

The importance of clinical rotation is to prepare the nursing student to acquire practical skills, knowledge, professionalism, and attitudes, perfecting those and gaining confidence in patient care while advancing in the profession, learning environment, and its influence on their specialisation choice (Labeeb *et al.*, 2017:146). Students commented as follows about maintaining consistency in clinical practice and skills laboratory work:

Majority of the students appreciated the clinical learning experiences by commenting that "this is more useful than theory, as learning by doing gives us a clear understanding of the procedures". Students emphasised how many times they had practiced a special task and what they had learned through practicing (Labeeb et al., 2017:146).

The nursing student learns and gains confidence and proficiency if she/he is consistently exposed to demonstrations in which she/he utilises psychomotor skills and critical reasoning together with own return demonstrations (Motsilenyane, 2015:83). Therefore, the skills laboratory needs to be well equipped to a modern standard to meet the needs of the students alongside qualified mentors, preceptors, and instructors who are competent enough to prepare them for the clinical nursing practice (Muthathi et al., 2017:4).

Another factor that plays an important role in skills learning is the length of stay in the Clinical Placement Area and alignment of placement to theory. Students expressed that a full-day allocation in the clinical area is deemed best practice as opposed to half-day placement (Muthathi et al., 2017:4). Therefore, it is important for clinical educators to maintain continuity of learning aligned to placement to the related theory learned in class.

Theme 1.3: Best practice in demonstrating skills when students are divided into a smaller, more manageable group.

Muthathi et al. (2017:4) confirm that a smaller, more manageable group of nursing students during accompaniment increases their ability to observe demonstrations and to take an active part in practising procedures. Working in small groups affords students an opportunity to interact with each other while working in pairs fosters a deeper understanding and helps students to establish possible future partnerships (Muthathi et al., 2017:4).

Bray (2013:18) highlighted that, to increase the opportunities for students to practise their clinical skills during the practical skills session, the student to clinical educator ratio of 20:1 must be reduced to the desired ratio of 8:1. By reducing the number of students that attend one practical session, more students will get a chance to demonstrate their skills while being supervised and guided by the clinical educators, and students would be able to easily remember and interact with fellow students in smaller groups. Participants raised these points:

- *"It was very interactive and very enjoyable. You were able to remember so much more as opposed to learning on a piece of paper."*
- *"Each person in my group got to demonstrate something because we were quite small groups and doing it myself, I learned it well."*

- *“I think you should practice with fellow students and that cannot hurt. it is a good thing to work with your friends.... helps you to see what it is like in the future to work with future colleagues because they are going to be your colleague.”*
- *“It helps for this year when you must choose your clinical partners. You see how well you work with certain people and how they work and your methods.”* (Bray, 2013:18).
- Furthermore, students felt that there was a degree of individual attention given to them by the clinical educator in a small group. They felt free to ask questions, and if they made mistakes, they felt comfortable being corrected by the clinical educator or their peers (Muthathi *et al.*, 2017:4).

Theme 1.4: Effective clinical supervision and support by clinical educators and clinical staff to nursing students.

Clinical accompaniment and guidance form the cornerstone of the professional and personal development of pre-graduate students (Kgafela, 2015:63). Hughes and Quinn (2013:190) as quoted in Motsaanaka *et al.* (2020) define clinical supervision as a formal process whereby nursing student is provided with professional support, learning, and training which motivate them to develop insight and competence. Student participants expressed support in a nurturing environment in which the educators were open and approachable with a positive attitude.

Beukes *et al.* (2013:311) accentuate that the nurse educators must enable the nursing students to take active part in nursing actions under their direct supervision according to the student's ability. The community nurse must be mindful and act responsibly to create a climate in which recognition is given to the ideas of the student and the student is encouraged to give his/her input in providing effective consultation to the patient.

In addition, Daniels and Jooste (2018:4) state that participating students expressed support in a nurturing environment in which educators were open, caring, and approachable with a positive attitude, students further stated that experienced educator support is being beneficial and contributing to their academic success. Personal and professional characteristics of educators played a vital role in the support offered to students. *‘I always felt at ease and like I could ask the educator for anything.’* (22 years old, female) *‘I felt at ease with the educator, and I felt like I could approach the lecturer about anything.’* (20 years old, female).

Furthermore Kgafela (2013:63) agrees that educators could support students by being caring and advising in learning methods throughout the programme. as methods of peer support which encourages camaraderie amongst students.

Considering the literature stipulated above, Motsilenyane (2015:69) and Mothibi (2014:71) also reported similar findings about support in clinical areas, support should be provided by training institutions, workplaces, and educators to benefit all nursing students and parties involved. Gerber (2016:72) states that students want staff who are dedicated to supporting them in practice and who can explain the research and evidence underpinning the interventions, thus allowing the linking of theory to practice.

In addition, Gerber (2016:18) further stated that positive experiences resulted in motivated and enthusiastic students, being inspired by role models enhanced learning when support was afforded with personal growth. A good learning environment leads to meaningful and optimal learning.

Most students felt that clinical practices offer an excellent opportunity to practise and learn and this in turn, help them to develop as professionals. Students emphasised that they have met with a lot of patients and that the full beds in the clinical area gave them a great opportunity to practise the tasks repeatedly. Emphasis on offering learning opportunities for students in the hospitals and the utilisation of these opportunities facilitated clinical learning (Labeeb *et al.*, 2017:145).

The clinical learning environment constitutes the staff, clinical setting, and the patients. It is the responsibility of the Department of Health together with the nursing college to groom the nursing students for them to cope with the complicated environment of clinical practice. Students that were supported and supervised were knowledgeable, skilful, and provided effective and efficient patient care (Mothibi, 2014:71).

Findings from Muthathi *et al.* (2017:6) reported that NEI's to conduct an on-going clinical education workshop, which aims to encourage the professional nurses to teach in the clinical learning environment, thus in-turn makes student feels supported.

Students expressed that they felt lucky to have continuous clinical supervision by the clinical educators who are also strict and excellent in their supervisory function. Clinical educators were available to them from the beginning till the end of their posting (Kgafela, 2013:83). Clinical educators play an important role in clinical accompaniment, and clinical learning of nursing students.

Other findings from the study undertaken by Nyelisani (2016:80) states that student participants wished to receive support from their nurse educators and professional nurses in the CLE. *"My wish is for nurse educators and staff to be supportive and never give up on me"*.

Further findings from Lekhuleni and Jali (2015:790) state that the first-year nursing students should be accompanied by the same educator who facilitates the theory module. These students should use practical reflective journals and a computer literacy module should be offered to them as a measure of adaptation to the new learning environment and support.

Recommendations made from Rikhotso *et al.* (2014:6) indicate the need to implement the proposed guidelines, supported by the literature, for the clinical guidance and support of nursing students during their clinical exposure and learning in hospitals, this included creation of a context conducive to a learning environment in the clinical practice by means of clarity on mutual expectations and support for students in a form of clinical accompaniment, this will help students gain more knowledge and needed skills.

Theme 1.5: Conducive learning environment for nursing students

According to Bray (2013:28), a positive learning environment created by enthusiastic, passionate, well prepared clinical educators was a key ingredient for the success of an early clinical skills module. Thus, the students called for the faculty and clinical educators to standardise the teaching of knowledge content and clinical technique, and to complement this by implementing a uniform teaching strategy that includes demonstration, supervision, and feedback during practical sessions (Bray, 2013:28).

Effective clinical learning takes place if the nurse educators use various teaching and learning strategies in the clinical practice, since students have different learning needs. The strategies include demonstration, Problem Based Learning, reflection, case studies, and clinical conferences. Students develop group dynamics, confidence, self-motivation, and caring attitudes and become responsible for their own learning if these methods are used (Bray, 2013:28).

Beukes *et al.* (2013:6) accentuate that student believed that the provision of meaningful clinical learning opportunities by the community nurse was important. By 'meaningful' they meant that the quality of clinical accompaniment ought to be a value that the community nurses in the community nursing environment should uphold. Hence the students regarded quality clinical accompaniment as an important professional value as one participant stated that. *'I must be allocated to a person [professional nurse] that is willing to show or guide you'*.

Matshotyana *et al.* (2015:116) state that a conducive-learning environment that encourages student learning is one that ensures that all students are treated with respect; there is a climate of trust between nurse educators and students; students are given opportunities to reflect on their behaviour and that of others; and questions are asked to stimulate student thinking. Motsilenyane

(2015:79) also add to the above statement, stating that nurse educators and nursing staff members in clinical practice environments have an influence and, indeed, a responsibility to create a teaching-learning environment that is conducive to student learning. Nyelisani (2016:88) stated that nursing students learned a lot in the hospital environment (CLE), and it is a good experience to be next to the patient. This knowledge is acquired through participation in real task in the practical area through interaction with other nurses.

Another finding from the study undertaken by Zenani (2017:44) states that the nursing students highlighted experiential learning in clinical settings as of great importance. Actively involving themselves in day-to-day ward activities has been beneficial in their career development. In this way, they feel a sense of belonging and of value in the profession. Some participants added that creative writing such as keeping a journal and receiving support from peers and clinical staff were helpful in their development. Thus, enquiries and discussions with senior clinical staff and other multi-disciplinary team members in the hospital are core pillars of the support structure and create a conducive environment for theory integration.

Sub-theme 1.5.1: Effective communication and good interpersonal relationships

An environment that positively influences learning is one where staff are happy, friendly, have good morale and attitude, cooperative, and willing to teach and guide students and provide quality patient care (Mothibi, 2017:199)

Beukes *et al.* (2013:308) state that facilitation of value sensitive communication during clinical accompaniment, is done to build an atmosphere of mutual respect, open communication channels between all parties, nurses, patient, and students, whereby opinions, and information are exchanged effectively during communications. It is imperative that nurses in every role begin to respect each other. Beukes *et al.* (2013:302) specified that good ethical values are important in any relationship because they set the climate for personal and professional wellbeing. Motsilenyane (2015:76) highlights that outcomes of clinical practice for nursing students will help foster mentorship, communication, confidence, and meaningful clinical judgment and hence reduce challenges while caring for patients. The students need to acquire communication skills and competencies that will help them confront such challenges as may be encountered.

Effective communication in a clinical environment is vital. It plays an important role in patient care, just as language proficiency has been noted to be related to satisfactory learning experiences among nursing students (Zenani, 2017:65). Communication plays a critical role in the nursing profession, it reinforces quality healthcare and prevents medico-legal risks, be it written or spoken communication.

Sub-theme 1.5.2: Provision of human and material resources

The goal of clinical teaching, as stated by Motsilenyane (2015:76) is to produce competent clinical professionals who are critical thinkers and can function independently.

- **Students voiced the following:**

that; “if there is enough equipment in each clinical area.” “The clinical practice helps us to feel like a professional nurse”. “In the lab, we are practicing on a manikin, therefore, the clinical supervisor should strive to attain this goal by employing various training strategies such as reflection and being a role model in terms of professionalism.” (Motsilenyane, 2015:76).

Manikin which is totally different while we are practicing in the hospitals where we are dealing with patients (Labeeb et al., 2017:147) the following expressions were said by the students:”

The wards were always busy with patients, and every day I used to care for two to three patients along with ward sisters.” (Labeeb et al., 2017:147).

“We got an excellent opportunity to see and do more in the clinical areas and when we see and do the things in the clinical, we understand the procedures more”. “Because of enough articles, I could practice the procedures as it is taught in the laboratory.” “I could operate different equipment such as monitors, infusion pumps, feeding pumps, etc.” (Labeeb et al., 2017:147).

Sub-theme 1.5.3 Improved coordination and collaboration between NEIs and Clinical Facilities

A sound relationship, collaboration, and cooperation amongst ward staff and clinical educators during clinical accompaniment help to facilitate nursing students' learning and build their trust and competence in their interactions with patients (Daniels & Jooste, 2018:205). The college and hospital managements should therefore foster collaboration between college educators and professional nurses to ensure adequate guidance and support for nursing students (Kgafela, 2013:64). Manamela (2019:32) further indicates that a conducive learning environment should be established to enable nursing students to acquire professional knowledge and skills through teamwork between NEIs, clinical staff, and the multidisciplinary team.

Motsaanaka *et al.* (2020:7) recommended that all stakeholders need to be engaged in the continuous professional development to maintain and enhance collaboration and to coordinate a professional standard and improve competency amongst staff members and nursing students equally.

Sub-theme 1.5.4: Positive experiences of knowledge-sharing with and from various healthcare disciplines

Hughes and Quinn (2013:194) as quoted in Motsaanaka *et al.* (2020:6) define knowledge-sharing as bringing together individuals from different disciplines, with the aim of providing opportunities to learn with and from one another. Participants reported knowledge-sharing with and from various healthcare disciplines as a positive experience, as it exposed them to varied clinical learning opportunities. They reported how other healthcare disciplines assisted them in their clinical learning and opportunities. One participant verbalised:

“One time, the doctor called me to try and put up a drip. Even though I was scared, he was there with me. The fact that he let me practice was enough for me.” (Participant 3, verbatim focus group 3)

This strong support and positive attitude towards inter-professional learning promotes knowledge-sharing amongst students that may broaden the need for interdisciplinary clinical learning (Hughes & Quinn, 2013:194 as quoted by Motsaanaka *et al.*, 2020).

Category 2: Challenges experienced during clinical accompaniment

Theme 2.1: The theory–practice gap

According to the guidelines of the SANC, the theory–practice gap has been described as the disparity between what is practised and taught in the classroom setting and what is practised in the clinical environment. Conflicting practices between the ideal nursing taught and that of clinical settings result in students being confused, stressed, and anxious, thereby having a negative impact on learning (SANC, 2005). Evidence from Motsilenyane (2015:35) suggests that there is a gap in integrating theory and practice which has been of concern for a long time in nursing education. However, the move from nursing education to higher education has been criticised, as it has inadequately prepared nurses to acquire the necessary skills to become competent (Kgafela, 2013:134; Manamela, 2019:31; Mogale, 2011:74) due to insufficient and inadequate clinical accompaniment of students and shortage of clinical educators in public nursing education institutions, Integrating theory into practice requires protocols and procedures manuals in line with the current information as provided by the SANC standards to facilitate mastery of the skills and procedures (SANC, 2005).

Learning strategy in clinical teaching does not only help students to integrate past learned information to a new situation, but it also helps them develop critical thinking, problem-solving, and writing skills, which also leads to personal and professional development and positive change in students ‘attitude towards the profession (Motsilenyane, 2015:35).

Motsaanaka *et al.* (2020:3) highlight that clinical educators should create meaningful learning opportunities where students are granted the opportunity to link theory and practice. Moreover, the integration of theory and practice should be reinforced through clinical scenarios provided by learning tools such as video/ Digital Versatile Device (DVDs), case studies, and question sessions. Muthathi *et al.* (2017:4) believe clinical supervisors should utilise clinical laboratories that are equipped with technology such as high-fidelity mannequins and video/Digital Versatile Disk (DVD) may be a way to bridge the theory–practice gap.

The results from Tyanti and Seekoe (2015:51) indicate that access to clinical teaching and learning was viewed as a positive experience by the students. Participants confirmed that a teaching programme in the psychiatric institution was designed according to their objectives which enabled the students to translate theory into practice, however some students highlighted the experience and challenges with the integration of theory to practice, due to insufficient clinical accompaniment (Tyanti & Seekoe, 2015:52).

Zenani (2016:43) noted that the discrepancy between theory and practice in the clinical setting leads to nursing students feeling confused, owing to the realisation that the learned knowledge imparted in the classroom is ideological, and frequently does not equate to the real clinical settings.

Participants made the following remarks on the issue:

“... for me, I expected to do everything as I was taught in class in the ward, but it was not like that... it’s a lot of different things, when you come in the ward to what is happening in the class; things were done in a certain way in the class but it will be done in a total different way in the ward. More like in a shortcut in the ward. For me, it was a bit of a challenge, because now I wanted to do things the right way, and to get things done, I needed to do them the ward’s way.” (Participant 2) (Zenani, 2016:43).

Agreeing with the above remarks, the findings of Zenani (2016) have emphasised that nursing students were able to identify the discrepancies between the theory taught in the classroom and what they saw in practice.

Lack of suitable clinical placement sites leads to competition for placement aligned to theory, leading to more theory and less practice (Muthathi *et al.*, 2017:7). Motsilenyane (2015:83) states that lack of equipment, and procedures performed differently in practice, were reported as theory-practice discrepancies but these were addressed through clinical accompaniment and different teaching strategies.

Theme 2.2: Negative attitude of clinical staff

A study conducted by Rikhotso *et al.* (2014:1) state that nursing students complain about a lack of support and guidance from professional nurses within the hospital, some feeling restricted in the execution of their nursing tasks by professional nurses and other staff. Students perceived negative attitudes from clinical staff, a lack of clinical resources, inadequate learning opportunities, and a lack of support and mentoring during their clinical exposure. Many of the students participating in the study complained about the staff's discrimination between them and students of medicine. Rikhotso *et al.* (2014:4) also added that lack of support by ward professionals may lead to high turnover and absenteeism resulting in students' refusal to be allocated to a rural hospital for clinical exposure.

In their study "Guidelines for value sensitive clinical accompaniment in community health nursing", Beukes *et al.*, (2013:306) also found students felt embarrassed if shouted at in front of patients, this demonstrated lack of respect and professionalism for students.

Participants reported that professional nurses showed little interest in their process of teaching and were not eager to impart knowledge. As a result, students expressed emotions of anger and frustration because they were deprived of learning opportunities (Matshotyana *et al.*, 2015:115; Motsaanaka *et al.*, 2020:8).

Participants also reported that professional nurses appeared to find it difficult to manage large numbers of students, have a negative influence on their clinical learning, and professional nurses could not give individual attention to students, as they were required to perform their daily duties to provide quality nursing care. Participants also reported that professional nurses in wards allocated them the previous year's clinical outcomes and non-nursing tasks (Motsilenyane, 2015:80). Participants further reported that understaffed wards and overworked professional nurses, aggravated by the presence of many students, led to professional nurses becoming unsupportive, with no time to teach, provide learning opportunities, or supervise student nurses (Motsaanaka *et al.*, 2020:5). A participant stated:

*"Professional nurses in the wards are short-staffed and overworked. When we ask for their supervision to practice skills, they are too tired or too busy to help us."
(Participant 2 in focus group 1) (Motsaanaka et al., 2020 :7).*

Motsaanaka *et al.* (2020:6) further indicate lack of clinical learning opportunities for nursing students, resulted in negative emotional experiences, exacerbated by negative attitudes of professional nurses in wards.

Although learning in clinical settings has many benefits, Gerber (2016:65) indicated that it can be challenging, unpredictable and stressful and these stressors may affect learning either positively or negatively. Participants experienced that registered nurses were unwilling to assist them, delegated tasks inappropriately rendered poor supervision and therefore they were unable to meet their clinical outcomes.

According to Motsilenyane (2015:81), participant students indicated that ward sisters shout at them when they did something wrong without listening to the students.

In addition, Manamela (2019:46) states that most nursing students reflected on the continuous negative attitudes of professional nurses, which lead to feelings of despair whilst being allocated within the clinical learning environment. In addition, the participants concluded that the professional nurses were harsh. Restrictions and lack of respect towards students were experienced in the units and were perceived to impede the students' clinical learning. Findings further exposed that some professional nurses do not talk to students in a satisfactory manner, rather they shout at them and call them names. Labeeb *et al.* (2017:146) mention further problems as language barriers, rejection by patients, and fewer opportunities to practice skills.

Theme 2.3: Lacking human and material resources

Although all included studies had some common themes on the benefits or the effectiveness of clinical accompaniment, there are a few negative aspects highlighted by the authors. These include inadequate equipment in the clinical areas, less educator involvement, non-participation of students in the planning of their programme, and improper supervision by the clinical educators (Gerber, 2016:48; Labeeb *et al.*, 2017:145). However, authors such as Motsilenyane (2015:68), and Muthati *et al.* (2017:4) found some clinical learning areas to have a negative outcome on student learning. When the CLE is lacking, students demonstrate ineffective communication, inadequate preparation for skills, and negative emotional reaction from lack of clinical accompaniment.

Poor interpersonal relationships can lead to disharmony and unhappiness amongst group members, which can cause a poor interpersonal relationships and lack of communication lack of achievement of the set goals (Daniels & Jooste, 2018:2). Participants reported between college educators, student nurses, and professional nurses as contributing factors that created negative clinical experiences, blocking opportunities to learn and achieve objectives. A participant articulated.

” In this other ward, the staff members’ attitude towards each other was so bad. And I was caught in the middle because I didn’t know who to report to without offending the other.” (Participant 6 in focus group 2)

However, some authors, such as Letswalo and Peu (2015:356) and Motsilenyane (2015:80) have found the CLE to be lacking in both human and material resources which in turn hinders students’ growth and development clinically. Lack of computer skills and professional nurses who demonstrate skills differently from the way they are taught in class impede learning (Labeeb *et al.*, 2017:145), and students also identified hindering factors like clinical educators’ incompetence and non-supportive staff.

A study undertaken by Letswalo and Peu (2015:9) state that clinical practice was perceived by participants as a place of discord where the theory learned was not practised. Participants mentioned that good standards of care were not adhered to, and the clinical environment had become a confusing and stressful environment and a threat to their learning. It was reported by the participants that wards did not have material resources for executing their duties, no linen and equipment like electronic blood pressure machines. This hampered quality patient care. Furthermore, they said that they were exposed to a variety of clinical risks, ranging from handling infectious patients without proper guidelines to becoming victims of contracting infectious disease while executing their duties. This was evidenced by the following citations:

“Students are put at risk in the clinical area; we have been taught that we should wear gloves when handling patients, but, in practice, we are being told that if the patient’s linen is not soiled, we can handle the patient without gloves “(Participant 1)

The hospital does not have resources for students to learn, for example, electronic devices for blood pressure, temperature and so on. Exposing student nurses to clinical risk does not only hamper their academic progress but also challenges their personal growth and development and robs them of the opportunity of becoming competent practitioners (Letswalo & Peu, 2015:9).

Insufficient resources, as mentioned by participants in Mogale (2011:67), include a shortage of staff and equipment in wards where students are placed, which is a challenge as students feel that they are denied adequate learning opportunities. Inadequate equipment in the clinical areas, less educator involvement, non-participation of students in the planning of their programme, and improper supervision by educators, according to Mogale (2011:71) all these negatively impacted learning, while many nursing students did not value the quality of their CLE as they stated that it did not meet their learning needs, since they expected a training hospital to be equipped with resources (Gerber, 2016;19; Labeeb *et al.*, 2017:145; Motsilenyane, 2015:81).

The study participants (Zenani, 2017:60) reported that there was a lack of resources, in this case being equipment used to provide nursing care, and the nursing staff workforce in the unit, which influenced their clinical practice. Participant 6 clarifies:

“In a 24-bed ward, there was just two dynamap [blood pressure monitor], and we need to use the two for the rest of the ward and, when the sister come to check on us, she will shout, why we are slow...” (Participant 1)

“You know, I was in ward X ... and I had to do a wound dressing, and there were no sterile gloves, so I had to use the blue ones, you not supposed to use those gloves because they are not sterile...” (Participant 2)

The gap between theory and practice is accelerated by the lack of equipment in clinical practice, making it difficult for registered nurses to teach student nurses (Matshotyana *et al.*, 2015:114). Students experienced challenges regarding the management and resourcing of the college. Participants 'were expecting a warm welcome from management and staff on orientation, but that never occurred (Matshotyana *et al.*, 2015:114).

A study undertaken by Lekhuleni and Jali (2015:789), state that first-entering students face challenges such as different facilitation methods that are used and lack of computer skills. During experiential learning these students' adaptation is slow due to inadequate orientation in the hospital as well as professional nurses that demonstrate skills differently from the way they are taught in class.

Participants reported that a shortage of staff was a major challenge that crippled the efficient rendering of healthcare services and that also impacted negatively on student nurses during their clinical placements. Staff shortages led to trained nurses being unable to supervise participants. This is supported by the following statements:

the Unit Manager will say, 'Please help me out as the clinic is overcrowded' (District B,

Participant 2). ... sometimes I am on my own as there is no one to assist me since the clinic is short staffed (Sibiya & Sibiya, 2014:1950).

Nurses are demoralised due to appalling conditions of service. As a result, nurses are often off sick due to ill health (District B, Participant 1). ... the clinic is short staffed as nurses are resigning to look for greener pastures in private practice and overseas countries (District A, Participant 1).

Due to a shortage of staff, registered nurses at the clinics expected the participants to work as trained staff in Primary HealthCare (PHC) because they needed extra people to help them. This is evident in the following excerpts:

“oh, you are here at least we have someone to help us to ‘push the bench’ (District B, Participant 1).

The participants also reported that they could not focus fully on their responsibilities during their clinical placements as they also had to help with other duties that needed to be carried out in the clinics. This was obviously demoralising to participants who had expected clinics to be a good environment for clinical placement (Sibiya & Sibiya, 2014:1951).

3.7 Theme 2.4: Inadequate planning which leads to a hostile clinical environment

A study conducted by Motsilenyane (2015:74), found that lack of adequate planning and infrequent educator visits lead to students feeling that there was no specific structuring of clinical accompaniment for them as they were receiving insufficient clinical accompaniment from clinical educators. Furthermore, students placed on night duty were not accompanied at all.

Participants further reported that wards were understaffed, and professional nurses being overworked, which led to students not being adequately exposed to clinical learning and opportunities to practise their skills (Motsaanaka *et al.*, 2020:8). Although some students stated that they did receive support from ward staff (Motsilenyane, 2015:81), some still experienced inconsistent support from ward staff.

Factors that may bring about anxiety include fear of making mistakes, fear of dealing with dying patients and their relatives, non-supportive clinical nursing staff members, and differences between what is taught in the classroom and what is done in the clinical practice environments. This can cause students to become despondent, demotivated, and then drop out of the programme (Matshotyana *et al.*, 2015:106).

Negative experiences regarding hostile environment were related to the campus management as well as specific experiences related to knowledge and skills acquisition in both the classroom and in clinical practice environments (Matshotyana *et al.*, 2015:107).

The findings of a study done by Mthombeni and Phaladi-Digamela (2015:58) indicated that male nurses who participated in this study found clinical learning during intra-partum care was a challenge, these students experienced difficulties during the intra-partum care aspect of clinical learning, because of various obstacles such as difficulty in adapting, feelings of frustration about working in a female dominated labour ward, the experience of role conflicts on the part of the male students, awkwardness about being exposed to the nakedness of women during birth, lack of student supervision, and an unstructured student accompaniment plan, were some of the aspects creating a hostile environment for these group of students, Inadequate accompaniment

of male students during placement in labour wards refers to practicing midwives who could not provide continuous sufficient involvement during performance of specific procedures.

Students' challenges in relation to leadership role of management (Mogale, 2011:76) this was raised by students who felt that lack of equipment and human resources hinders the smooth running of the institution, therefore management should ensure the availability of material and human resources, and most importantly ensuring that accompaniment is conducted.

In addition to the studies above (Rikhotso *et al.*, 2014:6) also cited that the nursing students experienced a mixed feeling about the rural clinical environment during their learning, some had both negative and positive perceptions, depending on how they viewed the hospital and the staff. Rikhotso *et al.* (2014:6) further added that disrespectful, mean, and aggressive behaviour results in a negative relationship between the nursing students and the hospital staff, particularly professional nurses. The negative attitude of the professional nurses at hospitals reduces the nursing students' respect and trust for them.

Inadequate material or non-human resources, including lack of space, was cited by Sibiya and Sibiya (2014:1950) the study participants as one of the major challenges that compromised their learning in the clinical settings. The participants' frustration is evident in the following excerpts:

"We are three students sharing one consulting room as there are inadequate consulting rooms for us to use (District B, Participant 3)." We also have a problem of space in our clinic. The clinic offers many programmes that need privacy like voluntary counselling and testing for HIV, ante natal care, and mental health clinic (District A, Participant 3).

"Sometimes the consulting rooms were unavailable for students to do patient assessments. On Wednesday the doctor uses the consulting room that we also use for consulting; so, we do not have a place to conduct patients' health assessments (District A, Participants 5 and 6).

Theme 2.5: Overcrowding of wards

Overcrowding in the wards lead to lack of learning opportunities for nursing students. Letswalo and Peu (2015:351) reported that an overcrowded clinical facility is not a conducive environment for learning, as it hinders students' effective clinical learning and opportunities to practice their skills. Large numbers of students also exacerbate the problem caused by overcrowding.

Overcrowding by students of various healthcare disciplines, such as medicine, pharmacy, physiotherapy, and nursing in a clinical setting, impedes clinical training and learning opportunities, resulting in a lack of achieving the clinical objectives (Motsaanaka *et al.*, 2020:6).

The negative experiences of overcrowding in clinical areas results in decreased clinical learning opportunities and hindering the integration of theory into practice (Motsaanaka *et al.*, 2020:5).

Manamela (2019:31) stated that congestion in the ward interferes with the learning opportunities; students are unable to perform certain procedures and attend doctor's rounds because they are allocated in large groups. This concurs with the findings of the study conducted by Mothibi (2017:199) which also reflected that when student nurses are assigned to the wards and clinics in large numbers. This limits their practical opportunities for learning, irrespective of their level of training.

Overview of all themes discussed above:

Findings were from the two categories of the benefits and challenges of clinical accompaniment to nursing students, which compromised of 10 themes and four sub-themes.

The benefits of early clinical exposure showed a positive outcome as it provides a best clinical learning for nursing students. Practicing skills in the skills laboratory and working in small groups is also beneficial to students learning while being supported and supervised by caring and considerate nurse educators, this in turn helps to build students confidence and improves their competence in nursing care.

All these are only possible if the environment is welcoming and conducive to students learning.

The second category dealt more with the few challenges experienced by students whilst placed in CLE, most findings from studies appraised concurs that there is still a gap and lack of proper integration of theory learned in class into the clinical practice, which may be due to factors like, lack of human and material resources, inadequate planning, lack of support from nurse educators coupled with negative attitude of clinical staff and overcrowding of students from all medical fraternities which interferes with the process of learning for nursing students.

Therefore, the college and the clinical facilities should in collaboration foster a clear communication channel and look at the appointment of training preceptors to address these challenges regarding clinical accompaniment of nursing students.

3.8 Summary

This chapter focused on data analysis and the presentation of the findings of the systematic review, an explanation of how data was collected and classified, the realisation of the search strategy, reasons for studies included as well as excluded. A description of critical appraisal and a synthesis of findings were also provided. The themes and sub-themes of the study were discussed. Chapter 4 focused on the conclusion, evaluation of rigor limitations, and

recommendations of the benefits and challenges of clinical accompaniment of nursing students in the clinical environment.

CHAPTER 4 CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

4.1 Introduction

This chapter provides conclusions regarding the benefits and challenges of clinical accompaniment of nursing students. These 13 conclusions, together with the findings as discussed in Chapter 3, provide a synthesis of high-quality literature on how clinical accompaniment can benefit nursing students in clinical practice. The conclusions are followed by an evaluation of the study's rigour, limitations of this study, and recommendations for nursing practice, nursing education, and nursing research are discussed. The chapter concludes with a personal reflection.

4.2 Conclusions

The research question, as stated in Chapter 1, was: What is the best available evidence regarding the benefits and challenges of clinical accompaniment for nursing students? In answering the research question, conclusions could be formulated from the synthesised findings. Therefore, the conclusions include recommendations on how clinical accompaniment can benefit nursing students during their clinical placement. All data collected in the study were taken into consideration to answer the research question. Interventions of supportive clinical accompaniment provided by clinical educators can be interpreted as being effective and a good learning opportunity by nursing students.

4.2.1 The benefits of clinical accompaniment

A significant advantage of early clinical accompaniment is that it helps students build positive attitudes. This enables them to succeed in developing clinical skills and provides a sound preparation for the next phase of their learning. Students expressed positive feelings about early clinical exposure. Complex as the early clinical learning process may be, a positive learning environment created by enthusiastic, passionate, well-prepared clinical educators is a key ingredient for the success of an early clinical skills module.

4.2.2 Practise clinical skills in a skill laboratory

Nursing students appreciate the opportunity to practise skills in the laboratory before they work in a clinical setting. When the procedures that they perform in the hospital is like what they have practised in the laboratory, they have increased confidence. Furthermore, the availability of

equipment to practise the procedures on play an important role in facilitating the students' clinical learning.

4.2.3 Best practice in small group

It is evident that small working groups of students for rotation facilitates clinical leaning, while overcrowded clinical facilities, together with many students, hamper effective clinical learning. Demonstrating a skill in small groups is best practice for close observation and to allow students the chance to practise the procedure and take an active part in the learning experience.

4.2.4 Effective clinical support by clinical educators and clinical staff-

A supportive clinical training environment facilitates effective learning. Effective clinical support builds student confidence and motivation to learn. When the clinical educator demonstrates willingness to answer questions and offer explanations and shows an active interest in the students' learning and wellbeing, students are encouraged to actively participate in their learning.

Students who receive continuous clinical support and guidance from the clinical educator are better equipped to successfully manage daily clinical issues. Furthermore, this encourages clinical autonomy in the students and contributes to success in the educational process.

4.2.5 Conducive learning environment

Several factors contribute towards creating a conducive learning environment, such as clinical educators who are competent, strict, approachable, understanding, and provides continuous supervision; effective communication with immediate feedback; and demonstration of procedures in the clinical setting by the students' educators appreciate their CLE as hands-on learning opportunity where they learn through doing. Practising different procedures in a safe learning environment helps them to face real-life situations in future. Clinical educators make a valuable contribution to the student learning process when they enhance student learning by creating a positive learning environment and by being positive role models. These help lower student anxiety and increase their passion towards providing excellent nursing care.

4.2.6 Effective communication and good interpersonal relationships

Students perform better, both academically and clinically, when there is effective communication with educators, management, and fellow students. When clinical nurses demonstrate communication based on respect, integrity, and positive interaction with students, they enhance

the student learning process. Information sharing among students help eradicate doubts and encourage further learning.

4.2.7 Adequate human and material resources

Adequate human, physical, and financial resources are at the heart of learning support for students as it sustains quality mentoring. Management that makes adequate financial provision by budgeting for equipment, staffing, training, workshops, and recruitment responds effectively to the learning needs of students.

4.2.8 Collaborative interventions between NEIs and clinical facilities

To achieve best practice in clinical accompaniment, collaborative interventions by nurse educators, professional nurses, and clinical preceptors are required. This addresses the clinical disconnect between skills taught in the skills laboratory and the CLE.

4.2.9 Knowledge sharing

Participants reported knowledge sharing with and from various healthcare disciplines as a positive experience and a strong support towards inter-professional learning as it exposes students to varied clinical learning opportunities.

4.2.10 Correlation of theory to practice

Students value the opportunity to put the theory they learn in the classroom, into practice in the clinical environment. Through exposing students to patient-centred care they master a range of skills in various settings.

4.2.11 Negative attitudes of clinical staff

Negative staff attitudes hinder student learning. Biased educator opinion, lack of teaching and guiding, disrespectful educator`s attitude, and lack of support adversely affect the focus of nursing students. Learning is hindered by unclear and non-useful educator`s feedback and when staff do not allow student participation. When there is a negative staff attitude toward student training, it could lead to insufficient orientation in the units, misunderstanding of the training programme, and students` needs and requests not being considered, which in turn lead to poor interpersonal relationships between the ward sisters and students and negative attitude of the sisters towards students.

4.2.12 Inadequate planning

Educators who do not plan their support are unavailable when needed. This then could lead to students learning incorrect procedures and that they are subsequently perceived to be incompetent. Inadequate planning directly impacts negatively on effective learning.

4.2.13 Overcrowding in wards

Overcrowding of students of various healthcare disciplines, such as medicine, pharmacy, physiotherapy, and nursing, is detrimental to student learning. Too many students in wards results in decreased clinical learning opportunities.

4.3 Evaluation of Rigour

The guidelines, as suggested by Stern *et al.* (2014:54), were used to evaluate the rigour of this study. The evaluation was done based on the problem identification, the literature search, the data evaluation, data synthesis, and the presentation stage. These evaluation stages are discussed in this section.

4.3.1 Problem identification stage

In this systematic review, the problem was identified accompanied by a clear review question based on preliminary exploration. Afterwards, the concept of concern and the appropriate method for the systemic review were determined (Stern *et al.*, 2014:54).

4.3.2 Literature search stage

A well-defined literature search strategy was followed. All relevant literature was collected through searching relevant databases after identifying the most appropriate key words. A manual search was also done using reference lists. All these searches were conducted based on the purpose of the review and in collaboration with the research supervisor and an independent reviewer. All electronic reviews were sorted and sifted manually to exclude duplicated reviews through using titles and abstracts. An experienced librarian of the NWU assisted in obtaining the relevant studies. The search processes were carefully documented as indicated in Chapters 2 and 3.

4.3.3 Data evaluation stage

The critical appraisal was done as explained in Chapters 2 and 3 of this study. Data from literature relevant to this study was analysed to ensure that high quality data was included. Standard checklists were used to allocate scores for each relevant study to ascertain relevance and the

quality of the studies. Hence, only studies meeting the relevant criteria and with high scores were retained. Studies that were of poor quality were excluded and the rationale provided as to why they were excluded. The process was reviewed by the supervisor, the co-supervisor, and the co-reviewer, who are well experienced in the field, to ensure rigour.

4.3.4 Data synthesis stage

During data synthesis, findings that were relevant in answering the review question were identified. These findings were grouped to form themes and sub-themes, as set out in Table 3-8. A rigorous and transparent process was followed during the data synthesis stage, as documented in Chapters 2 and 3.

4.4 Limitations of the Study

The following limitations were identified during the study:

- Even though the choice of keywords was highly considered, it is possible that some information was overlooked.
- The abstracts and the full texts of some publications were not always easily obtainable, e.g. abstract published in foreign languages.
- Data was collected up to 2021 since the search was initiated in 2020. The researcher is aware that there may be more recent literature available for the years 2021 and 2022.

4.5 Recommendations

In the field of nursing, there is a need to identify the benefits of clinical accompaniment of nursing students in the clinical practice; however, some nurse educators are not putting enough effort into this. Thus, the following recommendations are made for nursing practice, education, and research, based on the findings and conclusions of this study.

Recommendations for nursing practice

The researcher makes five recommendations for nursing practice:

- The establishment of clinical teaching departments in hospitals to assure continuous support and accompaniment of students and ease the workload of student nurse accompaniment on professional nurses.
- Provision of fully equipped simulation skills laboratories at Public NEIs.

- Continuous professional development for clinical supervisors through educative clinical workshops and in-service training.
- Establish a model of preceptorship at PNEIs to allow nursing facilitators trained in clinical accompaniment and to be employed by PNEIs.
- Nurse educators must ensure that clinical outcomes of public NEI's per each level are available in wards for accompaniment by professional nurses.

Recommendations for nursing education

The following five recommendations are made for nursing education:

- There is need for formal structure in nursing student accompaniment, which could be provided by a textbook of skill demonstration and evaluation and a set accompaniment programme at the CLE.
- Clinical educators must be informed by in-service training on the annual SANC authorised required periods of clinical accompaniment for nursing students, as well as objectives per level.
- Create a set communication system, used in al CLEs, to prevent conflict and misunderstanding between all role players during clinical training.
- Create a policy regarding the learning support of students in the CLE with clear guidelines for mentoring. Since the nursing curriculum is equal parts theory and practice, adequate coordination between all stakeholders is essential for ensuring positive mentoring outcomes.
- Continuous professional development of nurse educators is essential to maintain high standards and to ensure adequate numbers of mentors.

Recommendations for nursing research

The study holds five recommendations for nursing research:

- The CLE can be considered as a highly interactive platform where practice-based learning takes place under the guidance of the mentor. However, it has never been explored as a concept. Further research should investigate the CLE along with concept analysis, as the CLE has greatly evolved with the ongoing global changes regarding nursing education.

- To gain more insight into the incongruences between student and educators' perceptions of effective early clinical learning, further studies should examine the clinical educators' points of view.
- A collaborative research project to do comparative study of students' CLE learning experiences in different provinces, namely Gauteng, Free State, Northern Cape, and KwaZulu Natal, could investigate the effectiveness of different CLE training systems.
- Challenges experienced by professional nurses regarding clinical accompaniment of student nurses could be investigated.
- Further research is necessary to design and implement a clinical accompaniment programme per year level and to evaluate its effectiveness for nursing educators and head nurses.

4.6 Personal Reflection

At the start of the study, it seemed that this would be a challenging journey as I did not know the systematic review method of enquiry. However, with the support of my supervisors, family, and colleagues, I managed to pull through. My supervisors' constant support, guidance, and constructive criticism helped me to refine the topic. I have gained a lot of information and grown personally and professionally through this study.

I learned to search for articles and although I failed to master the Evidence for Policy and Practice Information (EPPI) reviewer software, I managed to sift and analyse my data manually. Data collection was a big highlight for me. With the help of the librarian and the co-reviewer I was able to make sense of the data collection process.

This study has equipped, encouraged, and motivated me to further undertake a research project at my workplace. I hope to collaborate with my colleagues in such an endeavour.

4.7 Summary

The findings indicate that some clinical educators are indeed knowledgeable, skilful, and supportive. Yet various shortcomings, such as incompetence of educators, unprofessional behaviour, and differences among educators relating to clinical practices, also surfaced. The researcher also attempted to place the findings in context within the management of clinical educators at the institution under study as experienced by her and her colleagues. Once that was achieved, it was clear that the system of supervising undergraduate students at the institution, for example, the conditions of employment, the perceived lack of in-service training of supervisors,

and supervision of the educators themselves, could be ascribed as possible reasons for the shortcomings that exist in the accompaniment process.

I agree with Muthathi *et al.*'s (2017:8) statement that a team approach in clinical facilitation is required in bringing together professional nurses, nurse educators and clinical preceptors. The study suggested that it was important for nurse educators to develop realistic learning experiences for students as they transitioned from the classroom setting to a clinical setting. The involvement of senior nursing students in clinical teaching of the junior nursing students would be advantageous to the development of quality nursing professional practitioners.

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ANNEXURE A: ETHICAL APPROVAL



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North-West University Health Research Ethics
Committee (NWU-HREC)

Tel: 018 259-1206
Email: Ethics-HRECApply@nwu.ac.za (for human
studies)

4 April 2021

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the North-West University Health Research Ethics Committee (NWU-HREC) on 04/04/2021, the NWU-HREC hereby approves your study as indicated below. This implies that the NWU-HREC grants its permission that, provided the general conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: The benefits of small-group clinical accompaniment of first-year nursing students: A systematic review

Principal Investigator/Study Supervisor/Researcher: Dr B Sorooby

Student: LJS Manthata-13160261

Ethics number:

N W U - 0 0 1 8 6 - 2 1 - A 1

Institution Study Number Year Status

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation;
A = Authorisation

Application Type: Systematic review

Commencement date: 04/04/2021

Risk:

Minimal

Expiry date: 30/04/2022

Approval of the study is provided for a year, after which continuation of the study is dependent on receipt and review of an annual monitoring report and the concomitant issuing of a letter of continuation. A monitoring report is due at the end of April annually until completion.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- The principal investigator/study supervisor/researcher must report in the prescribed format to the NWU-HREC:
 - annually on the monitoring of the study, whereby a letter of continuation will be provided annually, and upon completion of the study; and
 - without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.
- The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the principal investigator/study supervisor/researcher must apply for approval of these amendments at the NWU-HREC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.
- Annually a number of studies may be randomly selected for active monitoring.
- The date of approval indicates the first date that the study may be started.
- In the interest of ethical responsibility, the NWU-HREC reserves the right to:
 - request access to any information or data at any time during the course or after completion of the study;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;

- withdraw or postpone approval if:
 - any unethical principles or practices of the study are revealed or suspected;
 - it becomes apparent that any relevant information was withheld from the NWU-HREC or that information has been false or misrepresented;
 - submission of the annual monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and/or
 - new institutional rules, national legislation or international conventions deem it necessary.
- * NWU-HREC can be contacted for further information via Ethics-HRECApply@nwu.ac.za or 018 299 1206

Special conditions of the research approval due to the COVID-18 pandemic:

Please note: Due to the nature of the study i.e. (systematic review of previously published articles), this study will be able to proceed during the current alert level, following receipt of the approval letter. No additional COVID-19 restrictions have been placed on the study except that the researcher must ensure that before proceeding with the study that all research team members have reviewed the North-West University COVID-19 Occupational Health and Safety Standard Operating Procedure.

The NWU-HREC would like to remain at your service and wishes you well with your study. Please do not hesitate to contact the NWU-HREC for any further enquiries or requests for assistance.

Yours sincerely,

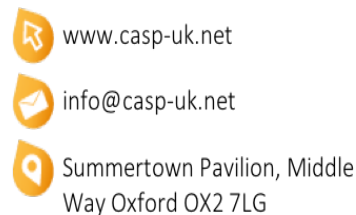


Digitally signed by
Prof Petra Bester
Date: 2021.04.06
14:18:11 +0200

Chairperson NWU-HREC

Current details: [20200522] G:\My Drive\ Research and Postgraduate Education\ 1.5.4 Templates\ 1.5.4.2_NWU-HREC_SAL.docx
20 August 2019
File Reference: 01.5.4.2

ANNEXURE B: QUALITATIVE RESEARCH APPRAISAL TOOL



Checklist: 10 questions to help you make sense of a **Qualitative** research project

How to use this appraisal tool: Three broad issues need to be considered when appraising a qualitative study:

- ▶ Are the results of the study valid? (Section A)
- ▶ What are the results? (Section B)
- ▶ Will the results help locally? (Section C)

The 10 questions on the following pages are designed to help you think about these issues systematically. The first two questions are screening questions and can be answered quickly. If the answer to both is “yes”, it is worth proceeding with the remaining questions. There is some degree of overlap between the questions, you are asked to record a “yes”, “no” or “can’t tell” to most of the questions. A few italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

About: These checklists were designed to be used as educational pedagogic tools, as part of a workshop setting, therefore we do not suggest a scoring system. The core CASP checklists (randomised controlled trial & systematic review) were based on JAMA 'Users' guides to the medical literature 1994 (adapted from Goat GH, Sacket DL, and Cook DJ), and piloted with health care practitioners.

For each new checklist, a group of experts were assembled to develop and pilot the checklist and the workshop format with which it would be used. Over the years overall adjustments have been made to the format, but a recent survey of checklist users reiterated that the basic format continues to be useful and appropriate.

Referencing: we recommend using the Harvard style citation, i.e.: *Critical Appraisal Skills Programme (2018). CASP (insert name of checklist i.e. Qualitative) Checklist. [Online] Available at: URL. Accessed: Date Accessed.*

©CASP this work is licensed under the Creative Commons Attribution – Non-Commercial Share a like. To view a copy of this license, visit <http://creativecommons.org/licenses/by-ncsa/3.0/> www.casp-uk.net Critical Appraisal Skills Programme (CASP) part of Oxford Centre for Triple Value Healthcare Ltd www.casp-uk.net

Section A: Are the results valid?

1. Was there a clear statement of the aims of the research?

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Yes
Can't Tell
No

Hint: Consider

- What was the goal of the research?
- Why it was thought important.
- Its relevance.

Comments:

2. Is a qualitative methodology appropriate?

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Yes
Can't
Tell
No

Hint: Consider

- If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants.
- Is qualitative research the right methodology for addressing the research goal?

Comments:

3. Was the research design appropriate to address the aims of the research?

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Yes
Can't Tell
No

Hint: Consider

- If the research has justified the research design (e.g., have they discussed which method to use?)

Comments:

4. Was the recruitment strategy appropriate to the aims of the research?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	Can't Tell
<input type="checkbox"/>	No

Hint: Consider

- Was it explained how the participants were selected?
- If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study.
- If there are any discussions around recruitment (e.g., why some people chose not to take part).

Comments:

5. Was the data collected in a way that addressed the Research?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	Can't Tell
<input type="checkbox"/>	No

Hint: Consider

- If the setting for the data collection was justified
- If it is clear how data were collected (e.g., focus group, semi-structured interview etc.)
- If the researcher has justified the method chosen.
- If the researcher has made the methods explicit (e.g., interview method, is there an indication of how the interview are conducted, or did they use the topic guide)
- If the method was modified during the study. If so, has the researcher explained how and why?

Comments:

6. Has the relationship between researcher and participants been adequately considered?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	Can't Tell
<input type="checkbox"/>	No

Hint: Consider

- If the researcher critically examined their own role, potential bias, and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location.
- How the researcher responded to events during the study and whether they considered the implications of any discussed saturation of data.

Comments :

Section B: What are the results?

7. Have ethical issues been taken into consideration?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	Can't Tell
<input type="checkbox"/>	No

Hint: Consider

- If there are sufficient details of how the research was explained to participants for the reader to assess the changes in the research design.
- Whether ethical standards were maintained by the study (e.g., issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study.
- If approval has been sought from the ethics committee

Comments:

8. Was the data analysis sufficiently rigorous?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	Can't Tell
<input type="checkbox"/>	No

- Hint: Consider
- If there is an in-depth description of the analysis process.
 - If thematic analysis is used. If so, is it clear how?
 - If The Categories/themes were derived from the data.
 - Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process.
 - If sufficient data are presented to support the findings.
 - To what extent contradictory data are considered
 - Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation.

Comments:

9. Is there a clear statement of findings?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	Can't Tell
<input type="checkbox"/>	No

- Hint: Consider
- Whether, if the findings are explicit, if there is adequate discussion of the evidence both for and against the researcher`s arguments.
 - If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst).
 - If the findings are discussed in relation to the original research question.

Comments:

Section C: Will the results help locally?

10. How valuable is the research?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	Can't Tell
<input type="checkbox"/>	No

Hint: Consider

- If the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g., do they consider the findings in relation to current practice or policy, or relevant research-based literature?)
- If they identify new areas where research is necessary.
- If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used.

Comments:

All 25 CASP tools with a score of 8/10 and above.

ANNEXURE C: CERTIFICATE OF LANGUAGE AND TECHNICAL EDITING

The logo for JdS Language Services features a large, vertical green bar on the left side. At the top of this bar is a circular emblem with a green-to-white gradient. A horizontal green bar extends from the right side of the emblem, containing the text 'JdS Language Services' in white, serif font.

JdS Language Services

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Address: Plot 701, Vyfhoek, Potchefstroom, 2531, South Africa

*This is to certify that this thesis
in fulfilment of the requirements for the
degree*

***Magister in Nursing Science
at the North-West University***

of

LJS Manthata

*has been edited by
Jeanette de Swardt
JdS Language Services*

*The complete thesis has been edited and
includes the following:*

*Declaration, Acknowledgements, Abstract,
Chapter 1 – Chapter 4*

Date: 26 January 2023

SAFREA
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Membership Number: SAF05668

ANNEXURE D: TURNITIN REPORT

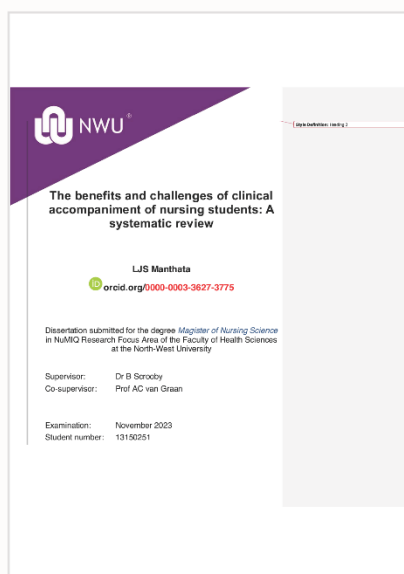


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